

# Lower San Joaquin River Committee



## Agenda Lower San Joaquin River Committee Meeting

**Stanislaus County Ag Center**  
**3800 Cornucopia Way, Modesto, California 95358-9492**  
**Rooms "H" and "I" (Ag Commissioner's Conference Room)**

Teleconference available (218) 339-4600 Participant Code: 927571#

**Monday, March 18, 2013 1:30 PM to 3:30 PM**

- 1. Welcome, Introductions, Agenda Revisions/Approval, Notes (All 5 min)**
  - a. [Introductions](#) Room/Phone
  - b. Review/revise/approve agenda
  - c. Review/revise/approve [Notes from February 14, 2013](#)
  - d. Review status of Action Items from February 14<sup>th</sup> meeting
- 2. Update on SWRCB Decisions on Vernalis Salinity Objectives - (Gowdy 10 min)**
- 3. Review Current Status of [Workplan](#) Elements - (Johnson 10 min)**
- 4. Budgeting/Funding/Financing/Contracting – Update (Cory 10 min)**
  - a. Contract with ESRCD
  - b. Long-Term Committee Manager RFQ and Review Process
  - c. Stability of Project funding from CAA
- 5. Salt and Boron TMDL & Real Time Management – (Mosley/Brownell 20 min)**
  - a. Review and Discuss [RTMP Draft Outline](#) – Brownell
- 6. Real Time Visualization Tool Presentation – (Quinn 20 min)**
- 7. Stakeholder Outreach and Involvement (Workplan Task III 10 min)**
  - a. [Draft Invitation Letter](#)
- 8. Water Quality Criteria - (Workplan Task VIII Johnson 10 min)**

a. Municipal and Domestic Supply	e. Animal Drinking Water/Terrestrial Wildlife
b. Agricultural Supply	f. Aquatic Life
c. CV-SALTS White Paper	g. Industrial Processing
d. Hoffman-Like Report from Regional Board	
- 9. Review Items for Executive Committee and [Future](#) Agenda Items – (All 10 min)**

LSJR Committee Members		2013 Meeting Dates											
Name	Stakeholder Group	17-Jan	14-Feb	18-Mar	10-Apr	9-May	13-Jun	July	August	September	October	November	December
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												
Roberta Tassey	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 River Group Authority												
Jeff Willett	City of Stockton												
Michael Mosley	USBR	✓	✓										
Craig Moyle	MWH Americas, Inc												
Andy Safford	EKI												
Roberta Howe	Calif Department of Water Resources												
Lisa Beutler	MWH Americas, Inc												
Chester Anderson	ESRCD/WSRCD	✓											
Tom Orvis	Stanislaus Farm Bureau												

# Lower San Joaquin River Committee



## Minutes from February 14, 2013 Meeting of the CV-SALTS Lower San Joaquin River Committee held at the Stanislaus County Ag Center, Room “G”

### 1. Meeting called to order by co-chairs Karna Harrigfeld & David Cory at 1:30 PM.

1. Attendees are listed on the Membership Roster.
2. There were no suggested changes to the Agenda.
3. The minutes from 1/17/13 were approved.

### 2. Update on SWRCB Decisions on Vernalis Salinity Objectives

- Per Mark Gowdy the document is out for review with a board meeting scheduled for March 20<sup>th</sup> & (21-22), with written comments due by March 29<sup>th</sup>.

### 3. Budgeting/Funding/Financing/Contracting (Workplan Task II)

- David Cory provided a contracting status update. The long-term committee manager RFQ is out with responses due the end of February. The SJVDA has received confirmation of intent to submit a proposal from one contractor, Michael Johnson.
- The RFQ for the technical services is closed. Submissions were received from CDM-Smith and Larry Walker Associates.
- The selection committee will meet as soon as possible to review the proposals for both positions.

Action: **The selection committee, (David Cory, Karna Harrigfeld, Nigel Quinn, Jim Brownell, Jeanne Chilcott, & Jamie Meek), meeting is tentatively scheduled for Tuesday, March 5<sup>th</sup> at 3:00 PM. The meeting will be conducted via teleconference.**

### 4. Salt and Boron TMDL & Real Time Management

- Michael Mosley and Nigel Quinn provided an overview of the Real Time Management project. The concept of a phased approach to project implementation was discussed.

Action: **Michael Mosley will provide a written discussion outline for committee review prior to the next meeting.**

### 5. Regional Monitoring Program Portal

- Karna Harrigfeld provided the following update from Parry Klassen:
  - The San Joaquin River portal project experienced delays due to contracting issues with EPA but is now back on track, and now estimated for April.

### 6. Stakeholder Outreach and Involvement

- The committee agreed it was best to get the long-term manager on board and the technical team in place and then do outreach. Karna Harrigfeld requested that the original stakeholder letter prepared by Dennis Westcot in 2012 be circulated to committee members for review and comment.
- The LSJR website will go live on February 25<sup>th</sup>, as a sub-site of the CV-SALTS website.

Action: **Daphne Orzalli will locate a copy of the stakeholder letter for distribution to the committee.**

# Lower San Joaquin River Committee



## 7. Water Quality Criteria

- David Cory briefed the committee on the update that had been provided by Richard Meyerhoff at the last Executive Committee.
  - Aquatic Life Study-A draft of Task 1 will be delivered to Richard on 2/15 and presented at the next TAC meeting.
  - Stock Watering Final Report – Final document has been received from Kennedy/Jenks and is being reviewed.

## 8. Review Items for Executive Committee and Future Agenda Items

- Nigel Quinn requested that a Review of Workplan Elements be added to the March 18<sup>th</sup> Agenda. Nigel will also look into the possibility of providing a demo of Real Time for the committee.

Action: “Review of Workplan Elements” will be added to the 3/18 Agenda.

## 9. LSJR Committee Adjourns

# Work Plan for Development of Water Quality Objectives for Salinity on the Lower San Joaquin River

**NOTE:** Presented here is a description of the various steps needed to complete a basin plan amendment. The write up implies that each will be completed in detail. In reality, the starting point for many tasks will simply be updating present information. There are many existing reports and evaluations of salinity on the Lower San Joaquin River. It is not the intent of this description to imply that the LSJR Committee will start over with a large study.

## Introduction

The Work Plan provided below is the Lower San Joaquin River (LSJR) Committee's, a stakeholder group of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS), suggestions as to how to complete a Basin Plan Amendment for establishing salinity water quality objectives on the Lower San Joaquin River from Merced River inflow to Vernalis. The Work Plan lays out a technical and administrative process to evaluate and define the beneficial uses of this river reach and to recommend water quality objectives for salinity and the individual salt constituents that make up the salinity levels. New or modified beneficial uses and water quality objectives must be adopted by the Regional Water Board in a Basin Plan amendment. The process described in the Work Plan will provide the Regional Water Board with the necessary tools to develop and adopt a Basin Plan Amendment that was prepared in accordance with the requirements of the Water Code. The Water Code requires consideration of various factors, including the means by which the objectives can be attained, economics, the need for housing and other factors spelled out in the Water Code. The Work Plan includes the development of an implementation plan to demonstrate the means by which proposed objectives will be achieved and the cost of doing so. The Work Plan also will develop other information needed to fulfill Water Code requirements. This Work Plan is set up to provide the Regional Water Board with the necessary tools to adopt water quality objectives by the deadline specified by the State Water Board's Recycled Water Policy which calls for development of a salt management plan for all the regions of the State by end of 2014.

This Work Plan will be continuously updated and will evolve as more information is known, but will establish the framework and timing of needs to demonstrate adequate progress by the stakeholders in developing the basis for a Basin Plan Amendment. All of the efforts described in this Work Plan will make efficient use of existing data and information from all sources with the goal of minimizing duplication of past efforts. All efforts of the LSJR Committee will be coordinated with other regulatory processes, anti-degradation efforts, salt management efforts, Delta requirements and others. The Work Plan describes a process that is transparent and open to all stakeholders and the public.

## Goals of the LSJR Committee in Developing Salinity Objectives

In the development of the Work Plan, the LSJR Committee discussed the following goals for the program of establishing water quality objectives for the Lower San Joaquin River:

1. Maximum protection of existing beneficial uses;
2. Maintain the capability to increase the level of beneficial use of the Lower San Joaquin River;
3. Set up a comprehensive plan to achieve salt balance in the river basin which is inclusive of all current and developing water uses and economic interests;
4. Establish water quality objectives and implementation mechanisms that not only protect beneficial uses in the Lower San Joaquin River basin but also downstream;
5. Develop objectives and implementation based on sound science;
6. Identify feasible plans for funding the implementation alternatives, projects and follow-up needed to demonstrate success;
7. Develop broad public understanding and ownership of the salt management plan within the Lower San Joaquin River Basin and beyond in the Central Valley;
8. Provide regulatory certainty to encourage capital investment and long-range planning that provides adaptability and flexibility; and
9. Use common language, understanding and decision tools.

The following is a brief description of each work plan element as laid out in Attachment 1 – Workplan Project Table and as summarized in Attachment 2 – Workplan Task Breakdown

## Work Plan Development

### (Line 5): Prepare Initial Draft or Outline of LSJR Committee Work Plan

*Identify and conduct preliminary scoping of tasks needed to develop a Basin Plan Amendment for water quality objectives for salinity on the Lower San Joaquin River and put into an outline framework. The outline should include management plan goals, task descriptions, and where possible, identification of leads, schedules and budgets.*

### (Line 6): Identify Critical Tasks and Prepare Detailed Descriptions

*Prepare a description of critical pathways to work plan implementation and completion along with milestones. All should be identified in the work plan and timeline.*

### (Line 7): Schedule Critical Pathways and Milestones

*Critical pathways to work plan implementation and key milestones should be identified in the work plan. Work management should focus on ensuring critical pathways and key milestones are noted and stay on schedule. Identify tasks, which must proceed immediately (i.e. due to critical path or length of effort) and be sure these are noted for completion.*

**(Line 8): Conduct Internal LSJR Committee Review of Work Plan**

*Ensure review by all LSJR committee members and that there is an understanding of the complexity of certain tasks.*

**(Line 9): Finalize Draft Work Plan**

*Prior to moving forward, complete the draft work plan with all the timelines clearly identified. Be sure that all committee members have had input into the final draft of the work plan.*

**(Line 10): Review of Work Plan by CV-SALTS, Exec Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The draft work plan needs to be reviewed and approved by the by CV-SALTS Exec Committee, CVC-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff to ensure that they are comfortable with the critical tasks to be undertaken by the LSJR Committee and time lines that are proposed. This work plan must act as an agreement between the stakeholders and the CV-SALTS/ Regional Water Board staff.*

**(Line 11): Respond to Comments**

*The LSJR Committee needs to be able to respond to any comments for improvements to the work plan provided by the reviewers. In those areas where agreement cannot be found and a response to comments prepared, there needs to be intervention on the part of the by CV-SALTS, Exec Committee or the CV-SALTS Coalition to resolve the differences. In the event that major additional work is required, the LSJR Committee will need to determine the impact on the remainder of the work plan or the need to prepare an alternate work plan.*

**(Line 12): Finalize LSJR Committee Work Plan**

*Based on the comments received from the CV-SALTS Executive Committee, the CV-SALTS Technical Committee, CV-SALTS Coalition, and Regional Water Board staff, the LSJR Committee will attempt to modify the Work Plan to accommodate the comments. In those instances where accommodation cannot be made, it will be noted as a point of contention and reviewed at a later date.*

**Budget/Funding/Financing**

**(Line 14): Develop Cost Estimates for Each Work Plan Task**

*Prepare a detailed estimate of cost for each item in the work plan, including financial and in-kind resource requirements from any and all parties. Review expenditures and refine and update costs and budgeting on a regular basis (half yearly and annual).*

**(Line 15): Prepare a Detailed Revenue and Funding Plan**

*Prepare a detailed plan for obtaining stakeholder, grant, and other funding and financing resources needed over the duration of the budgeted activities for all elements of the program.*

**(Line 16): Identify Non-Financial Resources and Inputs**

*Identify non-financial in-kind and stakeholder contributed studies and opportunities to have others contribute in non-financial ways. Additionally prepare a section specifically to meet the needs of the Regional Water Board and basin plan amendment needs for this program.*

**(Line 17): Develop the Program Organization and Governance**

*Develop an organizational chart and contact list for the LSJR Committee effort. Develop clear lines of leadership responsibilities, including project, funding, and technical oversight. Develop a process for determination of leadership and roles and responsibilities of work groups and subcommittees. Determine and implement a management structure for oversight of the work plan and Basin Plan Amendment development. Develop methods and structures for managing contractors. The LSJR Committee will also document any contractual or other relationships to members of the LSJR Committee, the CV-SALTS Executive and Technical Committees and the CV-SALTS Coalition.*

**(Line 18): Develop Procedures for Procurement of Needed Services and Financial Administration**

*Develop and implement a process for oversight of procurement of services in conjunction with the CV-SALTS Executive Committee and the CV-SALTS Coalition. This should include procedures for development of scopes of work, identification*

*of contractors, solicitation and evaluation of proposal, and bids, as well as contracting for the work to be performed and ensuring the project contractors or other services are completed and paid. Develop procedures for administration of funds and grants consistent with procedures prepared by the CV-SALTS Executive Committee. Where needed, oversee procurement of goods and services. If needed, develop and implement accounting procedures. Produce quarterly financial reports for work plan.*

#### **Stakeholder Involvement and Outreach**

**(Line 20): Develop Procedures for Stakeholder Coordination and Management**

*Planning, managing and coordinating the LSJR Committee meetings and interactions with current and future stakeholders.*

**(Line 21): Outreach and Public Information**

*Announce and initiate all LSJR Committee meetings as public meetings. Where needed, sponsor public workshops to update stakeholders on the LSJR Committee progress. Work through the CV-SALTS Executive Committee and the Public Education and Outreach Committee to ensure adequate notice is provided of the LSJR Committee activities.*

**(Line 22): Periodic Reporting and Communications**

*Coordinate with the Public Education and Stakeholder Outreach Committee to provide appropriate information on the salinity water quality objective development process being used by the LSJR Committee to the audiences of the program on a timely and appropriate basis. Prepare official reports to the CV-SALTS Executive Committee, the Regional Water Board, and all funding agencies and groups, as appropriate. Prepare and present updates to the CV-SALTS Executive Committee, the Regional Water Board and others, as needed.*

**(Line 23-25): Record Keeping**

*Work with Water Board staff to identify record keeping needs for the Basin Plan Amendment and other process requirements. Develop guidelines on needed records, a filing system, and a records retention schedule. Ensure that the appropriate records are retained and filed accordingly.*

#### **Basin Description**

**(Line 27): Prepare Outline for a Draft Basin Description**

*Prepare an outline of the necessary components and sections of an adequate Basin Description. This Basin Description will utilize a number of documents that have already been reviewed and printed and will rely heavily on previous written versions of descriptions of the physical features of the San Joaquin River basin and how these influence salinity buildup in the basin. The Basin Description outline will concentrate on the physical features of the San Joaquin River basin that influence salinity buildup that would help better define watersheds to be considered. The analysis will concentrate on how various watersheds impact salinity and will only move into other factors if they affect salinity buildup.*

**(Line 28): Conduct Brief Internal (LSJR Committee) Review of Draft Outline**

*The LSJR Committee will review and accept the outline and identify sources of information that can be used to complete the document.*

**(Line 29-30): Prepare Initial Draft of Basin Description**

*The LSJR Committee will coordinate the development of the initial draft of the Basin Description utilizing documents such as Regional Water Board historical documents, Vernalis TMDL report, McCarthy report, Sacramento-San Joaquin River Basin Plan, San Joaquin River Restoration Program technical documents and other historical documents as the LSJR Committee feels necessary. The emphasis of this basin description analysis will be on the physical description of the basin and the needed watershed descriptions or delineations that will be needed for further analysis in the future.*

**(Line 31): Conduct Internal (LSJR Committee) Review of the Basin Description Draft**

*The LSJR Committee will conduct or arrange for a review of the initial draft of the Basin Description. Based on comments received from the LSJR Committee members, the documents will be put into a final draft form.*

**(Line 32): Review of Basin Description by CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The LSJR Committee will request a review of the final draft Basin Description by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff.*

**(Line 33): Respond to Comments**

*The LSJR Committee will consider the comments received from the reviewers and, where needed, will modify the Basin Description. If time permits, the LSJR Committee will respond to those comments not considered in the final drafting.*

**(Line 34): Finalize Basin Description**

*The LSJR Committee will prepare a final draft of the Basin Description for distribution to the stakeholders and public. The actual release of the final draft document will be determined by the LSJR Committee and the public workshop and meeting schedules agreed upon by the LSJR Committee.*

**(Line 35): Prepare Draft Changes to Basin Plan Language Involving the Basin Description**

*The LSJR Committee will prepare a final draft of the Basin Description and with the final wording, prepare draft changes to the Basin Plan Language involving the basin description.*

**Historical Water Use and Salinity Buildup in the Basin**

**(Line 37): Prepare Outline for a Draft Description of the Basin History**

*Prepare an outline of the necessary components and sections of an adequate description of how salinity developed in the basin and the main factors influencing that buildup. This Basin historical write-up will utilize a number of documents that have already been reviewed and printed and will rely heavily on previous written versions of descriptions of water supply development and land use and how these influence salinity buildup in the basin. The historical buildup outline will concentrate on water supply challenges and salinity buildup that would help better define salinity or how water supply development and land use contributed to salinity development in the basin. The analysis will concentrate on how salinity developed in the various watersheds within the LSJR Basin and will only move into other factors if they affect salinity buildup.*

**(Line 38): Conduct Brief Internal (LSJR Committee) Review of Draft Outline Description of the Basin History**

*The LSJR Committee will review and accept the outline and identify sources of information that can be used to complete the document.*

**(Line 39): Prepare Initial Draft Description of Basin History**

*The LSJR Committee will coordinate the development of the initial draft of historical water use and salinity buildup in the San Joaquin River Basin utilizing documents such as Regional Water Board historical documents, Vernalis TMDL report, McCarthy report, Sacramento-San Joaquin River Basin Plan, San Joaquin River Restoration Program technical documents and other historical documents as the Committee feels necessary. The emphasis of this write up on the historical salinity buildup will be on the factors in development and water supply and land use that influenced salinity buildup and discharge to the San Joaquin River or delineations that will be needed for further analysis in the future.*

**(Line 40): Conduct Internal (LSJR Committee) Review of Draft Basin History**

*The LSJR Committee will conduct or arrange for a review of the initial draft of the historical water use and salinity buildup description. Based on comments received from the Committee members, the documents will be put into a final draft form.*

**(Line 41): Review of Draft Basin History by CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The LSJR Committee will request a review of the final draft of the historical water use and salinity buildup description by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff.*

**(Line 42): Respond to Comments**

*The LSJR Committee will consider the comments received from the reviewers and, where needed, will modify the Basin Description. If time permits, the LSJR Committee will respond to those comments not considered in the final drafting.*

**(Line 43-44): Finalize the Description of Basin History**

*The LSJR Committee will prepare a final draft of the Basin History for distribution to the stakeholders and public. The documents to be utilized in the final document will include, but not be limited to, Regional Water Board historical documents, Vernalis TMDL report, McCarthy report, Sacramento-San Joaquin River Basin Plan, San Joaquin River Restoration Program technical documents and other documents as needed. The actual release of the final draft document will be determined by the LSJR Committee and the public workshop and meeting schedules agreed upon by the LSJR Committee.*



## Problem Statement

### **(Line 46): Prepare Initial Draft of a Problem Statement Basin Plan Amendment Language**

*Based upon the reports prepared by the LSJR Committee describing the watersheds in the basin (Basin Description) and the historical buildup of salinity, the LSJR Committee will prepare an initial draft of a Problem Statement that can be used for future Basin Plan language.*

### **(Line 47): Conduct Internal (LSJR Committee) Review of the Draft Language**

*The LSJR Committee will conduct or arrange for a review of the draft problem statement for basin plan language. Based on comments received from the Committee members, the Problem Statement will be put into a final draft form.*

### **(Line 48): Prepare Draft Changes to Basin Plan Language Involving the Problem Description**

*The LSJR Committee will prepare a final draft of the Basin Plan language describing the salinity buildup problem and the need for water quality objectives for future protection of established beneficial uses.*

## Review of Lower San Joaquin River Beneficial Uses

### **(Line 50): Select Proposed Beneficial Use Designations**

*The LSJR Committee will evaluate the existing list of beneficial use definitions outlined in the Sacramento-San Joaquin River Water Quality Control Plan and listings from other sources and decide upon a final list of beneficial use definitions to be used in the review of beneficial uses for the Lower San Joaquin River Basin. This will be the initial listing but the final listing may change as further review of beneficial uses proceeds.*

### **(Line 51-58): Assignments for Review of Documentation Describing Existing Beneficial Uses**

*The LSJR Committee will assign document review to individual members or outside experts to review the present and potential beneficial uses that may exist on the Lower San Joaquin River. Review of documents will include, but not be limited to, the Phase 1 (Kennedy/Jenks) Beneficial Uses and Objectives Study, State Water Board WQ 85-1 Report, Regional Water Board Draft Report entitled McCarthy Report, Sacramento-San Joaquin River Basin Plan, Grassland BU Assessment, the Vernalis TMDL Report and other reports, as deemed needed.*

### **(Line 59): Review Policy Decisions of CV-SALTS Executive Committee/DPH and others**

*The LSJR Committee will conduct a review of existing policies within the basin plans, policy development decisions of the CV-SALTS Executive Committee, the California Department of Health Services or other policies of State and federal agencies that may impact the development of, or designation of beneficial uses on the Lower San Joaquin River.*

### **(Line 60): Review Beneficial Use Designation Policy from US EPA/State Water Board/Regional Water Board and Factors Required by the Water Code and Clean Water Act**

*The LSJR Committee will undertake a review of beneficial use designation policy from US EPA/State Water Board/Regional Water Board and other factors required by the Water Code and/or the Clean Water Act that may impact the designations of beneficial uses on the Lower San Joaquin River.*

### **(Line 61): Describe and Document Existing Beneficial Uses for the LSJR**

*From existing documentation, the LSJR Committee will oversee the development of a listing of present and potential beneficial uses on the Lower San Joaquin River. This listing will serve as an initial listing for development of appropriate basin plan amendment language. A full listing of references will accompany this effort and be part of the documentation needed for the basin plan amendment.*

### **(Line 62): Prepare Draft Basin Plan Language for Proposed Changes to Designated Beneficial Uses**

*Draft language for proposed changes to designated beneficial uses in the Basin Plan will be prepared for consideration by the LSJR Committee.*

### **(Line 63): Conduct Internal (LSJR Committee) Review of Draft Language**

*The LSJR Committee will conduct or arrange for a review of the draft language for beneficial use designations that will be considered for basin plan language. Based on comments received from the Committee members and other participating in the review, the documents will be put into a final draft form.*

### **(Line 64): Review of Draft Beneficial Use Language by CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The LSJR Committee will request a review of the final draft of the basin plan language for beneficial use designations by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff.*

**(Line 65): Respond to Comments**

*The LSJR Committee will consider the comments received from the reviewers and, where needed, will modify the proposed changes to the Beneficial Use Designations in the Basin Plan. If time permits, the LSJR Committee will respond to those comments not considered in the final drafting.*

**(Line 66): Finalize Draft Basin Plan Language for Proposed Changes to Designated Beneficial Uses**

*The LSJR Committee will prepare a final draft of the changes proposed to the designations of beneficial uses for distribution to the stakeholders and public. The actual release of the final draft document will be determined by the LSJR Committee and the public workshop and meeting schedules agreed upon by the LSJR Committee.*

**Review of Water Quality Criteria**

**(Line 68): Identify Constituents of Concern (EC, TDS, Boron, Specific Salts, Etc.)**

*The LSJR Committee will review or arrange for a review of which constituents of concern in salinity including, but not limited to, EC, TDS, B, Ca, Na, Mg, SO<sub>4</sub>, Cl, HCO<sub>3</sub> and CO<sub>3</sub>, should be considered by the LSJR Committee. A listing of those of concern and the reason for their consideration will be prepared.*

**(Line 69-73): Review of Applicable Drinking Water Salinity Criteria**

*The LSJR Committee will review or arrange for a review of drinking water quality criteria established at either the State, federal or local levels. The review will include, but not limited to the Phase 1 Beneficial Uses and Objectives Study, Review of DHS Drinking Water Quality Criteria and Regulations, review of US EPA Drinking Water Quality Criteria and Regulations, and review of Regional Water Board Drinking Water Policy documentation efforts.*

**(Line 74-79): Review of Aquatic Life Salinity Criteria**

*The LSJR Committee will review or arrange for a review of aquatic life water quality criteria established at either the State, federal or local levels for salinity levels. The review will include, but not limited to the Phase 1 Beneficial Uses and Objectives Study, review of scientific literature for aquatic life uses, review of US EPA Guidelines for aquatic life protection, and review of Regional Water Board documentation on aquatic life criteria. Where the documentation is inadequate, the LSJR Committee will prepare a Scope of Work for further review of aquatic life water quality criteria and work with the CV-SALTS Technical Committee on procurement of services to fulfill this data need.*

**(Line 80-84): Wetlands Water Use Salinity Criteria**

*The LSJR Committee will review or arrange for a review of wetland water use water quality criteria established at either the State, federal or local levels for salinity levels. The review will include, but not limited to the Phase 1 Beneficial Uses and Objectives Study, review of scientific literature for wetland water use, review of US EPA Guidelines for wetlands protection, and review of Regional Water Board documentation on wetland water use criteria. Where the documentation is inadequate, the LSJR Committee will prepare a Scope of Work for further review of wetland water use water quality criteria and work with the CV-SALTS Technical Committee on procurement of services to fulfill this data need.*

**(Line 85-90): Agricultural Salinity - Stock Watering**

*The LSJR Committee will review or arrange for a review of animal drinking water quality criteria established at either the State, federal or local levels for salinity levels. The review will include, but not limited to the Phase 1 Beneficial Uses and Objectives Study, review of scientific literature for animal drinking water use, review of US EPA Guidelines for animal drinking water quality protection, and review of Regional Water Board documentation on animal drinking water use criteria. Where the documentation is inadequate, the LSJR Committee will prepare a Scope of Work for further review of the animal drinking water use water quality criteria and work with the CV-SALTS Technical Committee on procurement of services to fulfill this data need.*

**(Line 91-98): Agricultural Salinity - Irrigation Uses**

*The LSJR Committee will review or arrange for a review of irrigation water quality criteria established at either the State, federal or local levels for salinity levels, including the Hoffman Report being used for the Southern Delta salinity standard review. The review conducted here will include, but not limited to the following steps; review the completeness of*

*Regional Water Board staff report on Irrigation Uses in the Lower San Joaquin River Basin, review and prioritize comments on the Regional Water Board staff report on Irrigation Uses in the Lower San Joaquin River Basin, determine whether comments on the Regional Water Board staff report are policy or technical, determine whether comments can be handled by LSJR Committee or whether the CV-SALTS Executive and/or Technical Committees need to undertake a review and prepare comments or whether the LSJR Committee needs to contract for this work to be completed in a scientific manner, and if needed, prepare a Scope of Work for completion of the Regional Water Board staff report on Irrigation Uses in the Lower San Joaquin River Basin. Should it be determined that an outside expert is needed for the review of the draft Regional Water Board staff report on Irrigation Uses in the Lower San Joaquin River Basin, the LSJR Committee will assist in contracting for completion of the Regional Water Board staff report on Irrigation Uses in the Lower San Joaquin River Basin and review and finalized the Irrigation Use Study for use by the LSJR Committee.*

#### **Delineation of Water Quality Criteria**

**(Line 100): Prepare Initial Draft of Water Quality Criteria to be Considered for the Various Beneficial Uses in the LSJR**

*The LSJR Committee will, based upon the review of salinity water quality criteria for the various beneficial uses, prepare an initial listing of the significant salinity criteria for the various beneficial uses defined for the Lower San Joaquin River. This initial listing will serve as a resource and reference document for establishment of water quality objectives for salinity. The LSJR Committee will also ensure that the documentation to support the list is available as a reference document for any basin plan amendment changes proposed.*

**(Line 101): Conduct Internal (LSJR Committee) Review of Draft Water Quality Criteria**

*The LSJR Committee will conduct or arrange for a review of the initial draft of the water quality criteria for each designated beneficial use. Based on comments received from the Committee members, the documents will be put into a final draft form.*

**(Line 102): Review of Draft Water Quality Criteria by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The LSJR Committee will request a review of the final draft water quality criteria by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff.*

**(Line 103): Respond to Comments**

*The LSJR Committee will consider the comments received from the reviewers and, where needed, will modify the water quality criteria and prepare the scientific basis for the modifications. The LSJR Committee will also ensure that the documentation to support the changes to the water quality criteria based on comments from the reviewers is available as a reference document for any basin plan amendment changes proposed. If time permits, the LSJR Committee will respond to those comments not considered in preparing the final draft water quality criteria.*

**(Line 104): Finalize Water Quality Criteria to be Used for Developing Water Quality Objectives**

*The LSJR Committee will prepare a final draft of the water quality criteria that will be used to consider ranges of water quality objectives. The LSJR Committee will ensure that the water quality criteria documents and reference material is available for distribution to the stakeholders and public. The actual release of the final draft document will be determined by the LSJR Committee and the public workshop and meeting schedules agreed upon by the LSJR Committee.*

#### **Review of Established Water Quality Objectives for Salinity**

**(Line 106): Review State Board Documents on Southern Delta Salinity Objectives**

*The LSJR Committee will review and analyze the technical support documents prepared as part of the Southern Delta Salinity objective setting process. The documents will include, at a minimum, the Hoffman Report and the Technical Appendixes to the Substitute Environmental Document and the Substitute Environmental Document. In addition, the LSJR Committee will need to review the proposed water quality objectives and the basis for the recommendations.*

**(Line 107) Review the Proposed Water Quality Objectives for Salinity in the Southern Delta**

*The LSJR Committee will need to review and analyze the basis for the establishment of water quality objectives for salinity in the Southern Delta and how this objective will impact the actions upstream in the Lower San Joaquin River. Present State Water Board direction to the LSJR Committee is to reduce salt input to the Lower San Joaquin River by 10% from the 1990 levels and move the export of salt from the basin to higher flow periods. The latest objective setting*

*process will need to be evaluated as to whether this can be accomplished and what level of protection will be needed upstream in order to accomplish the State Water Board direction.*

**(Line 108): Review Salinity Water Quality Objectives Established in other Water Bodies**

*The LSJR Committee will undertake or will schedule a review of other salinity objectives established in surface water bodies and the beneficial uses they are intended to protect. The review will first cover the surface water bodies of the State of California and then will look at objectives established in other states. Documentation on the reasoning and scientific basis for the objectives will be developed and made available to the LSJR Committee and become part of the record of the basin plan amendment.*

**Water Quality Objectives**

**(Line 110): Review Policy Decisions of CV-SALTS Executive Committee**

*The CV-SALTS Executive Committee is considering several policy issues related to establishment of water quality objectives for salinity. The LSJR Committee will need to consider whether this policy guidance is appropriate for the development of water quality objectives for salinity in the Lower San Joaquin River Basin.*

**(Line 111-116): Evaluate a Range of Water Quality Objectives for Salinity**

*The LSJR Committee will evaluate and prepare a range of water quality objectives to be analyzed based upon the water quality criteria documents previously prepared. A range of water quality objectives will be recommended for Drinking Water, Animal Drinking Water, Protection of Wetland Water Uses, Aquatic Life Protection and for Agricultural Irrigation Uses and an evaluation of the most sensitive ranges within each beneficial use will be conducted. Consideration will also be given to evaluating the impact to beneficial uses of other ranges of water quality objectives.*

**(Line 117-124): Review Policy Guidance and Compliance with Policy Guidance**

*The LSJR Committee will evaluate policy guidance and compliance with existing regulations from State, federal and local levels in relationship to the range of water quality objectives being proposed for analysis for each beneficial use. The evaluation will, as a minimum, review compliance with the Sources of Drinking Water Policy, State and federal drinking water regulations and other state mandates regarding drinking water, State and federal mandates and policy regarding animal drinking water, State and federal mandates and policy regarding protection of wetlands and wetland water supplies, State and federal mandates and policy regarding aquatic life protection, and State and federal mandates and policy regarding agricultural irrigation uses. This review will also consider compliance with the State and federal Non-Degradation Policy.*

**(Line 125-126): Finalize a Set or Range of Water Quality Objectives for Further Analysis**

*The LSJR Committee will develop a final set or range of water quality objectives for further analysis. This evaluation will consider and utilize factors defined in Water Code Section 13241 and other applicable regulations.*

**(Line 127): Review of Proposed Water Quality Objectives by the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board Staff**

*The LSJR Committee will request a review of the final draft set or range of water quality objectives that will be subjected to further analysis. A review will be requested of the CV-SALTS Executive Committee, the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff.*

**(Line 128): Respond to Comments**

*The LSJR Committee will consider the comments received from the review by the CV-SALTS Executive Committee, the CV-SALTS Technical Committee, CV-SALTS Coalition and Regional Water Board staff and, where needed, will modify the range of water quality objectives that will be subjected to further analysis and prepare the basis for the modifications. The LSJR Committee will also ensure that the documentation to support changes to the range of water quality objectives to be subjected to further analysis as proposed by the reviewers is available as a reference document for any basin plan amendment changes proposed. If time permits, the LSJR Committee will respond to those comments not considered in preparing the final draft water quality criteria.*

**(Line 129): Finalize Water Quality Objectives for Further Analysis**

*The LSJR Committee will prepare a final draft of a range of water quality objectives that will be subjected to further analysis. The LSJR Committee will ensure that the documents and reference material supporting the range of water quality objectives that will be subjected to further analysis is available for distribution to the stakeholders and public. The actual release of the final draft document will be determined by the LSJR Committee and the public workshop and meeting schedules agreed upon by the LSJR Committee.*

## Workshop on Beneficial Uses and Water Quality Objectives

### (Line 131-136): Conduct Workshops on Proposed Beneficial Uses and Water Quality Objectives

*The LSJR Committee will conduct or facilitate the effort to conduct one or more public workshops on the proposed changes to beneficial uses and water quality objectives for salinity in the Lower San Joaquin River. These workshops will be open to the public and will seek input on any proposed changes to the Beneficial Uses listed for the Lower San Joaquin River in the Sacramento-San Joaquin River Water Quality Control Plan, seek input on any additions to the listed beneficial uses, seek additional input on other beneficial uses that should be considered for inclusion, review the range of water quality criteria found during the Committee's evaluation of the science related to salinity and beneficial use protection, review the range of water quality objectives for salinity that will be evaluated further or considered during this basin plan amendment process, review compliance with State and federal policies and seek additional ideas on water quality objectives for salinity and their effectiveness in protecting designated beneficial uses.*

### Water Quality Characterization

#### (Line 138-141): Identify Watersheds for Analysis

*Using the Basin Description developed as part of this basin plan amendment analysis, efforts will be made to identify the specific watersheds to be analyzed for salinity input to the Lower San Joaquin River. These watersheds will be used at a later time to determine loadings of salt, existing water quality and potential for improving salinity levels in the Lower San Joaquin River. This analysis will include, but not be limited to, an evaluation of the existing watersheds described in the Basin Plan, watershed as defined in the Vernalis TMDL (Salt and Boron) report, and the utility of using the watersheds described in the draft McCarthy Report. This effort will result in a description of watersheds to be utilized for the salinity inputs analysis.*

#### (Line 142-148): Identify Water Supply and Water Use in Each Watershed

*Using the watersheds identified as part of this basin plan amendment analysis, efforts will be made to quantify the water supply source and water use patterns in each of the identified watersheds. This analysis will include, but not be limited to, characterizing all significant existing uses, flow, location, quality, etc., characterizing legal, institutional and physical/operational constraints to current and future water uses, develop initial future water use scenarios for beneficial uses evaluation, identify locations and magnitude of diversions and other uses, identify drainages and other discharge sources and identify gaining and losing reaches along each of the streams entering the Lower San Joaquin River and the Lower San Joaquin River itself. This analysis will use as a baseline the Vernalis TMDL (Salt and Boron) report and will focus on updating that information.*

#### (Line 149-155): Identify Salt Loading Data Available for Selected Watersheds

*For the watershed identified for analysis, the LSJR Committee will initiate or facilitate the development of salt loading data. This analysis will use as a baseline the Vernalis TMDL (Salt and Boron) report and will focus on updating that information. In developing the detailed work steps for this analysis, the LSJR Committee will consider, but not limited to, identifying monitoring points for salt loadings and data sources associated with them or from additional sources, the ability to utilize existing data from the Vernalis TMDL (Salt and boron) report, ability to update data using recent data from the same sources used for the Vernalis TMDL (Salt and Boron) report, USBR Westside Study, studies updating the information from the wetlands and irrigated lands within the Grassland Basin, the impacts of further development of the San Joaquin River Restoration Program and the present levels and future projections of groundwater accretions. The data within the draft McCarthy Report will also be considered.*

#### (Line 156-160): Update Water Quality Data Base to Current Conditions

*After review of the available reports, the LSJR Committee will undertake or facilitate the updating of present water quality data bases to current conditions. This effort will include, but not be limited to, identifying the usefulness of data used in the Vernalis TMDL (Salt and boron) report, the process and needs to update data using recent data from the same sources used for the Vernalis TMDL (Salt and boron) report or other sources, identify other sources of critical and current water quality data for salinity and determine the effort needed to bring these data bases together.*

#### (Line 161-162): Identify Missing Salt Loading Data for the Selected Watersheds

*If salt loading data is identified as missing, the LSJR Committee will undertake or facilitate the Preparation of a Scope of Work for Identifying missing salt loadings from the selected watersheds. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

### Estimates of Baseline Salt Loading

#### (Line 164): Identify Tools to be Used for Loading Analysis

*The LSJR Committee will initiate or facilitate the development of tools for developing the salt loading data. These tools may include modeling, spreadsheet analysis or other methods. The exact methods cannot be determined until the missing data and the extent of the data analysis needed is determined.*

**(Line 165): Identify Significant Salt Sources**

*As part of the salt loading analysis, the LSJR Committee will conduct or facilitate the development of a sensitivity analysis to determine the largest and most important sources of salt to the Lower San Joaquin River. If needed, the LSJR Committee will identify the most significant salt sources or undertake or facilitate the preparation of a Scope of Work for identifying the most important salt sources to the Lower San Joaquin River or from selected watersheds. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 166): Quantify Salt Loads from Various Sources**

*As part of the salt loading analysis, the LSJR Committee will conduct or facilitate the development of a salt loading evaluation from the largest and most important sources of salt to the Lower San Joaquin River. If needed, the LSJR Committee undertakes or facilitates the Preparation of a Scope of Work for quantifying the most important salt sources to the Lower San Joaquin River or the most important sources from selected watersheds. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 167): Develop Water Balance and/or Salt Budget**

*The LSJR Committee will conduct or facilitate the development of a water balance and/or salt loading budget from the largest and most important sources of salt to the Lower San Joaquin River. If needed, the LSJR Committee undertakes or facilitates the preparation of a Scope of Work for quantifying the most important salt sources to the Lower San Joaquin River or the most important sources from selected watersheds. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**Modeling Existing Water Quality**

**(Line 169-171): Review and Select a Water Quality Model to Assessing River Salinity Levels**

*The LSJR Committee will conduct or facilitate the evaluation of water quality models that can be used to determine the extent of compliance with proposed water quality objectives for salinity in the Lower San Joaquin River. The review will include but not be limited to a review of the CalSIMS Model, the SJRIO model or other models available for prediction on river salinity levels. If needed, the LSJR Committee undertakes or facilitates the preparation of a Scope of Work for a review of the available models and selection of a model to assist the LSJR Committee in their work. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 172-176): Evaluate Whether the Salinity Water Quality Database is Current**

*The LSJR Committee will conduct or facilitate the evaluation of whether water quality data for salinity is current and can be utilized in the models being considered for evaluation of the extent of compliance with proposed water quality objectives for salinity in the Lower San Joaquin River. The review will include but not be limited to a review of the data needs for the CalSIMS Model, the SJRIO model or other models available for prediction on river salinity levels. If needed, the LSJR Committee undertakes or facilitates the preparation of a Scope of Work to evaluate whether water quality data for salinity is current and can be utilized in the models being considered for assessment of compliance with proposed water quality objectives for salinity. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 177-179): Conduct Seasonal and Water-year Analysis**

*During the evaluation of compliance with the proposed water quality objectives for salinity, the LSJR Committee will evaluate whether there is a need for seasonal variation or adjustment in the objective based on specific periods of beneficial use or other factors or whether seasonal or other water-year type analysis can be conducted with the present data or models being used. This analysis will include at a minimum, evaluation of whether flows and concentration data are available for various points on the river that can be utilized for seasonal and water-year type analysis, including drought or below-normal water years. If needed, the LSJR Committee undertakes or facilitates the preparation of a Scope of Work to evaluate whether seasonal or water year analysis can be conducted and utilized in the models being considered for evaluation of the extent of compliance with proposed water quality objectives for salinity. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

## Evaluate Compliance with Proposed Objectives

### **(Line 181-182): Evaluate Compliance with Proposed Objectives**

*The LSJR Committee will evaluate or facilitate the evaluation of compliance with the proposed water quality objectives. This evaluation will include, but not be limited to, whether compliance with proposed objectives can be achieved with present water operations and a preliminary evaluation of salt load reductions needed to achieve the proposed water quality objectives. If needed, the LSJR Committee under take or facilitate the preparation of a Scope of Work to evaluate the extent of compliance with proposed water quality objectives for salinity including whether seasonal or water-year type analysis should be considered. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

## Implementation Planning

### **(Line 184): Review of Available Resources in the Basin**

*The LSJR Committee will evaluate or facilitate the evaluation of the resources available to describe or understand the actions being taken on salinity control within the Lower San Joaquin River Basin for compliance with the proposed range of water quality objectives. The LSJR Committee or contractor will develop a list of all known and potential salinity control actions, ranging from large regional solutions to best management practices and develop a information on how well suited these actions are controlling salinity inputs to the Lower San Joaquin River. In addition, the contractor will develop a listing of goals and policy and management actions that may be needed to facilitate implementation.*

### **(Line 185): Review of Implementation Actions for the State Water Board Delta Salinity Objectives**

*The LSJR Committee will review and analyze the technical support documents prepared as part of the Southern Delta Salinity objective setting process by the State Water Board. The documents will include, at a minimum, the Technical Appendixes to the Substitute Environmental Document and the Substitute Environmental Document. In addition, the LSJR Committee will need to review the implementation actions described in these documents and the basis for their recommendations.*

### **(Line 186-199): Review of Implementation Alternatives for the LSJR Basin**

*The LSJR Committee will evaluate or facilitate the evaluation of alternatives available for compliance with the proposed range of water quality objectives. This will include the evaluation of a no action alternative, the USBR Westside Study, the USBR Real-Time Management Study, Wetland Studies and action plans, proposed water exchanges and probable water exchanges, BDCP/State Water Board flow and salinity objectives and their methods for compliance, the San Joaquin River Restoration Plan implementation methods and actions, the use of solar ponds, the use of a brine line, the implementation of the Grassland Bypass Project, the implementation of the Rainbow Report, other loading alternatives and other flow-related alternatives. If needed, the LSJR Committee undertakes or facilitates the preparation of a Scope of Work to evaluate feasible alternatives to be considered for use as implementation mechanisms for compliance with proposed water quality objectives for salinity. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

### **(Line 200-201): Develop a Program of Implementation for Who Does What and When and Anticipated Results**

*The LSJR Committee will prepare or facilitate the preparation of a Scope of Work to evaluate feasible alternatives and how those alternatives will be implemented to achieve compliance with proposed water quality objectives for salinity. This evaluation will determine water quality conditions that can be reasonably achieved. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

### **(Line 202-210): Define Implementation Authority**

*The LSJR Committee will evaluate or facilitate the evaluation of the various implementation authorities that are available for compliance with the proposed range of water quality objectives. This will include the evaluation of the water board's authority under the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act, State authority over federal and local projects, water right authority, the NPDES Permit System, stormwater permits, prohibition of discharge or Waste Discharge Requirements, waivers, and non-point source discharge controls or TMDLs. The LSJR Committee will prepare or facilitate the preparation of a Scope of Work to evaluate the board's authority to implement various alternative actions and how this authority will be utilized to implemented actions necessary to achieve compliance with proposed water quality objectives for salinity. This work will develop a white-paper exploring the regulatory tools available in the Lower San Joaquin River watershed that can be applied to salinity control actions and discusses the pros and cons of each. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 211): Develop Screening Tools to Evaluate Potential Management Alternatives**

*The LSJR Committee will develop or facilitate the development of tools to screen or prioritize management alternatives for technical feasibility, economic viability, and ability to implement, based on developed screening criteria. The LSJR Committee will utilize these too to take a comprehensive look at implementation scenarios and estimate their ability to reduce salinity concentrations in the Lower San Joaquin River.*

**(Line 212): Identify a Suite of Strategies for the Implementation Program**

*The LSJR Committee will develop or facilitate the use of the screening criteria to determined or identify comprehensive implementation scenarios worthy of pursuing in a more detailed analysis. This task will overlap the technical and the policy areas and should be thoroughly public vetted during workshops on alternatives for implementation. These alternative scenarios should be prepared meet CEQA requirements and be able to define a strategy where maximum benefit programs may result in lower cost and improved salt management in the Lower San Joaquin River.*

**(Line 213): Develop a “Strawman” Implementation Plan**

*The LSJR Committee will develop or facilitate the development of a Scope of Work to develop a “strawman” implementation plan. This plan should include preliminary actions, schedules, responsible parties, institutional requirements, estimated costs, funding responsibilities and strategies, and contingency plans. This plan would also include policy and regulatory requirements that may be generated from maximum benefit, adaptive management or non-regulatory implementation scenarios. This plan would be used to suggest the range of implementation that may occur during public meetings and give the LSJR Committee a scale of amount of effort that will be needed to complete the implementation process and the basin plan amendment. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 214): Identify Critical Implementation Components**

*During the development of the “strawman” implementation plan, there may be issues that are identified as needing further exploration, such as potential regulatory, legal, funding, or institutional obstacles. The Scope of Work for the “strawman” implementation analysis will include the requirement to prepare a white paper accordingly and use to inform the development of quantified, verifiable adaptive management or max benefit strategies and programs to assist with implementation where incomplete data or uncertain circumstances or effectiveness is present. This Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 215): Implementation Effectiveness and Preliminary Cost Analysis**

*To support the development of the “strawman” implementation plan and the Basin Plan amendment, a review will be needed of selected programs and strategies for effectiveness and preparation of an initial or preliminary cost benefit with the goal of ensuring that critical areas are prioritized, and that public and private capital is applied in the highest performing and most cost effective way. This need will be included in the Scope of Work that will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project.*

**(Line 216): Comments on the “Strawman” Implementation Plan**

*The draft “strawman” implementation plan should be vetted at various stages. The LSJR Committee will ensure that during development of the “strawman” implementation plan that is adequate time and effort given to obtaining public review both at the LSJR Committee level and through the CV-SALTS Technical Committee, the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project. There may also be a need for vetting the “strawman” proposal with various parties, and through a wider public release and public workshops.*

**Workshop on Proposed Implementation Alternatives**

**(Line 218-222): Conduct a Workshop on the Various Implementation Alternatives and Actions**

*The LSJR Committee will conduct or facilitate the effort to conduct one or more public workshops on the various alternatives being considered for implementation to achieve compliance with the water quality objectives for salinity in the Lower San Joaquin River. These workshops will be open to the public and will seek input on any of the alternatives proposed, the adequacy of the suggested alternatives, review the changes in operations and salt loading that must occur for each objective considered, seek guidance on a range of alternatives, seek guidance on economic or institutional constraints to implementation, review the range of compliance levels in relation to or with State and federal policies, and seek additional ideas on water quality objectives and methods for implementation that provide beneficial use protection.*



## Select the Alternatives to be Analyzed

### (Line 224): Review the Changes in Operations and Salt Loading that Must Occur for Each Objective Considered

*In selecting the alternatives to be further analyzed, the LSJR Committee will consider changes in the operations of water projects and discharges and the resulting salt loading. This sensitivity analysis and other factors will be used in developing the final listing of alternatives to be given full analysis.*

### (Line 225): Determine Whether Alternative Falls Within Present Authority

*In selecting the alternatives to be further analyzed, the LSJR Committee will consider whether the alternative's implementation actions fall within the present authority of the State and Regional Water Boards or whether other agencies will need to be included in the implementation plan. These factors will be used in developing the final listing of alternatives to be given full analysis.*

### (Line 226): Determine Water Quality Conditions that Can Reasonably be Achieved

*In selecting the alternatives to be further analyzed, the LSJR Committee will consider whether the alternative's implementation actions can be reasonably achieved and are within the authority of an implementation agency. These factors will be used in developing the final listing of alternatives to be given full analysis.*

### (Line 227): Outline the Economic Impacts of Each Alternative

*In selecting the alternatives to be further analyzed, the LSJR Committee will consider whether the alternative's implementation actions are a reasonable enough economic impact that further evaluation is warranted. These factors will be used in developing the final listing of alternatives to be given full analysis.*

### (Line 228): Determine Compliance with Federal and State Laws

*In selecting the alternatives to be further analyzed, the LSJR Committee will make an initial evaluation as to whether the alternative's implementation actions are within compliance with State and federal laws and can be implemented within those law and authorities. These factors will be used in developing the final listing of alternatives to be given full analysis.*

### (Line 229-237): Determine Compliance with Federal and State Policies and Regulations

*In selecting the alternatives to be further analyzed, the LSJR Committee will make an initial evaluation as to whether the alternative's implementation actions are in compliance with State and federal policies and regulations. Policies and regulations that will be covered in this evaluation will include, but not limited to, the Clean Water Act, State and federal Endangered Species Act, Recycled Water policy, Urban Runoff Policy, Water Quality Limited Segment Policy, both Federal and State Antidegradation Policy, Water Quality Objectives policy and the Watershed Policy. These factors will be used in developing the final listing of alternatives to be given full analysis.*

## Economic Analysis

### (Line 239-246): Conduct a Full Economic Analysis of the Cost of Implementation of the Selected Alternatives

*To support the implementation plan and the draft Basin Plan amendment, the LSJR Committee will review the selected programs and strategies for effectiveness and cost benefit with the goal of ensuring that critical areas are prioritized, and that public and private capital is applied in the highest performing and most cost effective way. This evaluation must include anticipated implementation program costs, costs to agriculture and where there are sources of funding for agriculture (per Water Code), costs to municipal dischargers, costs to industrial dischargers, costs to water districts and water supply, costs to wetland management areas and also seek additional input on cost of the alternative water quality objectives.*

## Long-Term Monitoring and Compliance Reporting

### (Line 248): Set the Goals of Monitoring and Compliance Reporting

*The LSJR Committee will conduct or facilitate the effort to identify and define the goals of a long-term monitoring and compliance reporting program. Goals may include monitoring for CEQA-requirements, or monitoring to inform adaptive management proposals. If needed, a Scope of Work will be prepared in conjunction with the CV-SALTS Technical*

Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project to facilitate developing these goals.

**(Line 249): Prepare a Program for Monitoring and Compliance**

*The LSJR Committee will conduct or facilitate the effort to prepare a draft long-term monitoring and compliance program. The monitoring and compliance plan may build off of short term monitoring plans prepared and executed by other stakeholders. The Scope of Work for a monitoring plan should identify monitoring locations, constituents, frequency, funding and resource needs and sources, monitoring leads, purpose of monitoring, and means of reporting results. Plan should also include a QAPP. If needed, a Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project to facilitate developing these goals.*

**Prepare Basin Plan Amendment Language**

**(Line 251): Draft Basin Plan Amendment Preparation**

*The LSJR Committee will prepare or work with Regional Board staff to prepare the draft Basin Plan Amendment according to Regional Water Board requirements. The LSJR Committee will conduct an internal review prior to release for public review and comment. The LSJR Committee will ensure that all the Basin Plan amendment language is prepared under the supervision of Regional Water Board staff. Presentations of the draft language will be made to the CV-SALTS Technical Committee and the CV-SALTS Executive Committee.*

**(Line 252): Prepare Final Document for Presentation to Regional Board Staff**

*The LSJR Committee will prepare or work with Regional Board staff to prepare the final draft Basin Plan Amendment according to Regional Water Board requirements. The LSJR Committee will receive and respond to public comments. The final draft Basin Plan Amendment language will be prepared according to Regional Water Board requirements. The LSJR Committee will work with the Regional Board staff on the release for public review and comment.*

**Prepare Substitute Environmental Document (SED) and CEQA Documentation**

**(Line 254): Draft CEQA Functional-Equivalent Documentation**

*The LSJR Committee will utilize the scoping efforts previous done by the Regional Water Board staff on the scope of the environmental analysis of the proposed water quality objectives and implementation plan. The LSJR Committee will determine the need to solicit additional information and feedback on the scope of alternatives and the areas for analysis including implementation. The LSJR Committee will conduct or facilitate the preparation of the environmental analysis of the proposed water quality objectives and implementation plan. The LSJR Committee will also determine whether CEQA compliance is for the Basin Plan amendment alone, or whether it should be prepared to cover other implementation actions as well. This task also covers document production and posting requirements and preparation of responses to comments and final environmental documentation. If needed, a Scope of Work will be prepared in conjunction with the CV-SALTS Technical Committee and with the approval of the CV-SALTS Executive Committee and the Regional Water Board staff working on the CV-SALTS project to facilitate the preparation of these documents. The final draft of the Substitute Environmental Document language will be prepared according to Regional Water Board requirements. The LSJR Committee will work with the Regional Board staff on the release for public review and comment.*

## Brainstorming Draft:

### Goal for the Framework Document

1. To provide a real-time salinity management program (RTMP) roadmap for Stakeholders
2. Identify and satisfy the minimum Water Board requirements for a RTMP program
  - 2.1. What needs to be accomplished to initiate salinity management within the basin to meet water quality objectives at Vernalis
  - 2.2. What does it mean to participate?
  - 2.3. What do stakeholders need to present?
  - 2.4. Reporting Requirements
3. Present an overall program that includes requirements for all participants in the real-time program

### Objectives

1. Identify a logical framework for a phased RTMP
2. Provide sufficient detail to obtain Central Valley Regional Water Quality Control Board approval for the waiver for Waste Discharge Requirements
3. Provide a timeline to guide the actions of the organizations participating in the RTMP
4. Be reflective of stakeholder inputs
5. Limit reliance on New Melones for dilution flows; water available for other beneficial uses

### Background

The Basin Plan for the Sacramento River and San Joaquin River Basins was amended in 2004 with a Total Maximum Daily Load (TMDL) for the control of salt and boron discharges into the lower San Joaquin River (Resolution No. R5-2004-0108). A provision was included in this amendment to allow the stakeholders to obtain a waiver from salt load limits and Waste Discharge Requirements if a Water Board approved real time management program is in place before the onset of Waste Discharge Requirements.

Reclamation entered into a Management Agency Agreement (MAA) with the Water Board in 2008. In this agreement Reclamation agreed to initiate a real time management program through actions to establish a monitoring network and forecast model. These actions have been completed for a pilot

project in Grassland Water district. Reclamation scientists will be able to utilize lessons learned from the Grassland pilot to provide technical support and guidance to other entities participating in the real-time management program.

1. The Memorandum of Understanding (MOU) between the Central Valley Regional Water Quality Control Board and the Central Valley Salinity Coalition
2. Display/discussion of river assimilative capacity in the past 5 years using CDEC data
3. Other examples of Real-time systems of a suitable scale for reference (e.g. National Water Quality Monitoring Council examples: Willamette River, Newfoundland and Labrador)
4. Benefits of the program

#### Stakeholder Involvement

The real time system will require participation from entities throughout the basin. Information from the monitoring system must be managed in a way that is transparent and available to all dischargers within the basin. A governing body of stakeholders can determine how the real-time information is used for compliance purposes.

1. Real time stakeholder charter and governing document creation
2. Operations and maintenance activities
3. Required actions for East Side stakeholders (flow requirements, assimilative capacity requirements, etc.)
4. Participation vs. non-participation and how to maintain equity between dischargers within the watershed

#### Approach

Implementation of the real time management program will occur in several phases. The purpose of the phased implementation approach is to allow for adaptive management and the application of the appropriate monitoring tools in the appropriate places. The implementation process must withstand changes (e.g. a change to flow standards in the San Joaquin River) over time while adhering to the river pollutant concentration standards listed in the appropriate regulations. The early phases are intended to identify a monitoring and management system for the San Joaquin River and large tributaries within each sub basin. The most important monitoring stations, San Joaquin River tributaries and sources of salinity should be identified (among participating parties) in the early phases. Later phases incorporate greater detail for other sources of salinity, adjustments to improve accuracy, improvement of the operations and

maintenance protocols and actions resulting from data quality analysis. Real-time salinity management must rely on a network of continuously operating flow and water quality monitoring stations. Electrical conductivity, flow, and temperature are the water quality parameters of concern.

Phase I - Develop and Implement a Basin Wide Forecasting tool: stations, parameters, data management, baseline monitoring, etc. (WARMF model); Identify Pilot Projects (e.g. Grassland WD)

Phase II - Evaluate resulting data; Develop operation and/or management concepts (including funding); inclusion watershed by watershed; obtain physical infrastructure to support RTMP (e.g. monitoring stations, databases)

Phase III - Begin implementation of management plan and initiate management strategies to move toward full RTMP implementation

Phase IV - Fully operational; Adaptive Management

#### RTMP Implementation

1. Basin-Wide requirements
  - 1.1. Assimilative capacity model
  - 1.2. Outreach and Participation
2. Participation vs. non-participation and equitable distribution of responsibility

# Lower San Joaquin River Committee



## LOWER SAN JOAQUIN RIVER COMMITTEE INVITATION TO STAKEHOLDERS

You are receiving this notice as you have previously expressed interest in activities in the Lower San Joaquin River Basin that may influence future water management and water quality regulation in the basin. This notice is to inform you about the efforts of the Lower San Joaquin River (LSJR) Committee of CV-SALTS and to invite you to participate if you feel these efforts may affect you or those you represent.

The Lower San Joaquin River (LSJR) Committee of CV-SALTS is a stakeholder effort to develop site-specific water quality objectives for salinity and boron in the Lower San Joaquin River between the Merced and Stanislaus River inflows. The committee recommendations will form the basis for an amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). CV-SALTS is a broad-based stakeholder effort that is developing salt and nutrient management plans for the entire Central Valley.

The LSJR Committee is presently made up of stakeholders in the basin and downstream and has been meeting periodically for over a year to educate themselves on the salinity issue, beneficial uses being made of the river, water quality needs and other factors that impact salinity in the LSJR. The LSJR Committee has now developed a workplan for completing the basin plan amendment process and is beginning to implement that workplan. A brief summary of the workplan is included with this notice.

Groups and individuals interested in the salt and boron impairment in the Lower San Joaquin River are encouraged to join the LSJR Committee stakeholders as they move through the workplan to develop the proposed Basin Plan Amendment. The work of the LSJR Committee may be of particular significance to agricultural interests, water districts, governmental officials, environmental groups, or others with interest in or responsibility for agricultural drainage, and agencies and organizations overseeing storm water management, wastewater treatment and disposal, water diversions, or management of flow in the San Joaquin River and its tributaries.

There are two ways to participate. For those interested in staying informed about the committee's work and review the committee's proposed amendments, you can sign up at [http://www.waterboards.ca.gov/resources/email\\_subscriptions/reg5\\_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml) by checking the box entitled "San Joaquin River Salt and Boron". By doing this you will receive periodic updates and locations of documents that are being reviewed or prepared by the LSJR Committee.

If you would like to be more directly involved and participate in the deliberations of the LSJR Committee, please contact the Committee Chair and list the stakeholders you would represent and confirm your commitment to attend committee meetings and review committee work products.

If you have any questions, please contact Dennis Westcot, LSJR Committee Chair at 530-758-8633 or by e-mail at [LSJR.Committee@sbcglobal.net](mailto:LSJR.Committee@sbcglobal.net).

Sincerely,

Dennis Westcot  
LSJR Committee Chair

# CV-SALTS Meeting Calendar

## 2013

**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

2nd or 3rd Thursdays

- Dark Green Exec Comm Policy
- RWQCB Update **Bold Underline**

2nd or 3rd Tuesdays

- Lt. Green Hatch Exec Comm Admin

First Monday except conflicts

- Yellow Salty 5
- Lower San Jaquin River Committee

Light Red conflicts

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**Third Thursday Exceptions**

- January 24 vs 17th due to CASA
- Dark in July & December for Policy
- Nov 14 vs 21 due to Thanksgiving

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Second Friday Exceptions

- April due to RWQCB meeting

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December 3 State Board Presentation