

Lower San Joaquin River Committee
Development of a Basin Plan Amendment for Salt and Boron in the Lower San Joaquin River
Key Deliverables Developed by the LWA Team (2013-2015)

In 2013, the LWA Team was retained to assist the Lower San Joaquin River Committee (LSJRC) with the development of a basin plan amendment (BPA) for salt and boron in the Lower San Joaquin River (LSJR). The Work Plan identified eight key tasks and a series of deliverables that were requested in order to ultimately assist the Central Valley Regional Water Quality Control Board (Regional Water Board) staff with the development of the BPA and corresponding Staff Report. A summary of the tasks and deliverables that have been completed as a part of this work effort is provided below.

Task 1 – Finalize Draft Agricultural Supply (AGR) EC Objectives

Review the technical comments received on the *Salt Tolerance of Crops in the Lower San Joaquin River Basin (2010)* and provide responses and recommendations for consideration by the LSJRC. Assess the potential for changes in model outcomes when using policy recommendations developed by the CV-SALTS Executive Committee as model inputs.

- “Task 1 – Finalize Draft Agricultural Supply (AGR) EC Objectives” Memorandum – June 19, 2014

Task 2 – Conduct Water Quality and Baseline Salt Loading Characterization

Task 2a – Compile and Update Water Quality and Salt Loading data

Identify, compile, and develop into a database, the available water quality and salt loading data needed for determining baseline salt loading to the LSJR as well as evaluating current water quality conditions within and estimating compliance with water quality objectives being considered for the river.

- “Task 2a – Compile and Update Water Quality and Salt Loading Data” Memorandum – March 4, 2014
- “Updates to the WARMF Database” Memorandum Addendum – June 19, 2014

Task 2b – Update Analysis of Baseline Salt Loading to the LSJR

Using data compiled under Task 2a, use the WARMF model to generate a salt loading analysis that identifies the significant salt sources in the LSJR basin, quantify the salt loading from those sources, and describe the timing of salt loading to the river.

- “Summary of Work Completed: Tasks 2, 3, and 8b” Memorandum – November 12, 2014

Task 3 – Conduct Water Quality Modeling

Task 3a – Identify Potential Ranges of Water Quality Objectives

Using information from Task 1 and Task 8b, identify the constituents and potential ranges of water quality objectives (WQOs) identified for protection of the proposed beneficial uses

- “Summary of Work Completed: Tasks 2, 3, and 8b” Memorandum – November 12, 2014

Task 3b – Conduct Evaluation and Analysis of Existing Water Quality and Compliance with Water Quality Objectives being Considered in the LSJR

Characterize historical ambient water quality conditions at Maze Road and Crows Landing as well as one location upstream of Reach 83, and compare historical ambient data collected at these locations to the proposed WQOs identified in Task 3a.

- “Summary of Work Completed: Tasks 2, 3, and 8b” Memorandum – November 12, 2014

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Task 4 – Conduct Implementation Planning

Evaluate a range of salinity management alternatives, assess the ability of those alternatives to achieve proposed salinity WQOs in Reach 83, identify a proposed salinity WQO, and identify a program of implementation to achieve the proposed WQO.

- “Task 4 – Implementation Planning for Proposed Salinity Objectives” Report – October 5, 2015

Task 5 – Economic Analysis

Develop a planning level economic analysis for the Preferred Alternative, which provides the costs of implementation for various discharge sectors. The analysis also included the development of planning levels costs for meeting alternative salinity WQOs.

- “Task 5 – Economic Analysis” Memorandum - October 5, 2015

Task 6 – Long-term Monitoring Program

Develop the goals and details of a long-term monitoring and reporting program to determine compliance with the salinity WQOs in Reach 83 as well as the effectiveness of the implementation program.

- “Task 6 – Long-term Monitoring and Reporting Program” Memorandum – October 5, 2015

Task 7 – Substitute Environmental Documentation

Based on other similar efforts by the Regional Water Board, develop an environmental analysis of the proposed WQO and implementation plan for Reach 83.

- “Task 7 – Substitute Environmental Documentation” Memorandum - October, 5, 2015

Task 8 – Central Valley Basin Plan Amendment Documentation

Task 8a – Finalize Beneficial Uses Review

Review and edit a LSJRC document that provided an evaluation of existing and potential beneficial uses in the LSJR as well as proposed Basin Plan language. Provide a recommendation regarding the sufficiency of available technical information to support the proposed modifications.

- “Finalize Beneficial Uses Review” Memorandum – December 5, 2013

Task 8b – Finalize Water Quality Criteria Review

Review salinity criteria, guidelines, and/or proposed benchmarks identified in several Beneficial Use Source documents commissioned by CV SALTS. Provide a summary of the review and use the information to assist in the identification of the potential range of WQOs.

- “Summary of Work Completed: Tasks 2,3, and 8b” Memorandum – November 12, 2014