

Lower San Joaquin River Salinity Objectives

Preliminary Considerations regarding Tasks 2, 3 and 4

November 12, 2013

The purpose of this document is to initiate discussion on early steps in the performance of Tasks 2, 3 and 4, with emphasis on areas where Committee member input is needed.

Task 2 – Conduct Water Quality and Baseline Salt Loading Characterization

The objective of this task is to assemble information that defines current water quality conditions and baseline salt loadings. The definition of these baseline conditions is needed as the basis for CEQA, for consideration of anti-degradation requirements, and for the evaluation of alternative management scenarios.

Considerations include:

- Current WQ Baseline – e.g. time series since 1995 for key parameters at various locations
- Water systems operational baseline – current/recent reservoir operations, State and federal project operations, others
- Current regulatory constraints – Bay-Delta Plan, TMDL, NPDES permits, fisheries flow requirements, others
- Current Management activities – Grasslands projects, Real-time management, compliance with Vernalis objectives, VAMP, others

Input from Committee members is needed to confirm (a) the time period for the WQ baseline, (b) the water systems operational baseline, (c) flow requirements, and (d) management activities as input into the WARMF model.

Task 3 – Conduct Water Quality Modeling

An objective of this task is to evaluate compliance with a range of water quality objectives under current conditions.

Drawing from the information assembled in Task 2, WARMF will be used to develop a “baseline” model simulation to best approximate current water quality based on an assumed the suite of “current conditions” as described above under Task 2. Compliance with a range of objectives will be made using this simulation.

WARMF outputs will be used to estimate the salt load reductions needed to comply with water quality objectives as input into the development of alternative management scenarios under Task 4 .

Task 4 – Implementation Planning

A primary objective of this task is to use the WARMF modeling tool to determine a suite of alternative management scenarios needed to meet proposed LSJR WQOs in accordance with CWC Sections 13241

and 13242. To reach this determination, management actions that are needed to meet existing (or future) regulatory mandates (e.g. as defined in the No Project Alternative) must be defined. *Input from Committee members is needed to determine the regulatory constraints that should be used in the identification of necessary management actions under the No Project alternative.*

A total of three alternative management scenarios will be modeled to achieve the Task 4 objective. Each alternative will include a set of assumptions regarding water project operational conditions. *Input from Committee members is needed to reach agreement on the best assumptions on those operational conditions for purposes of bracketing a range of outcomes for the CWC Section 13242 analysis.*