

Explanation of Brainstorming Table

The attached table identifies a first cut at a basic framework to develop water quality objectives for the Lower San Joaquin River. (The table resulted from a brainstorming session between Jeanne Chilcott, Rudy Schnagl, Dennis Westcot, and Jim Martin with additional input from Michael Steiger.) This initial draft builds off of appropriate sections of the Basin Plan Report Outline (attached) Rudy prepared for the LSJR Committee in 2010. The table identifies sections of a final report, anticipated work needed to complete the section, available reference material, the party responsible to complete the work and a rough time estimate.

Additional information highlighting some of the preliminary discussion points for each chapter is listed below.

Note: It is our opinion that the best approach to getting this project done in a timely manner is for the technical project manager (TPM) to coordinate and manage this project, in addition to completing some of the specific tasks in the table,

In addition, the committee needs to consider the pros/cons of entering into a contract with the SJRGA in order to subcontract out some of the work anticipated. (Developing a SJRGA contract is anticipated to take 3-months.)

Introduction

In general, the purpose of this chapter is to provide basic background information and discuss the problem(s) and the current situation. "McCarthy report" refers to a preliminary draft staff report prepared by Matt McCarthy, who worked on this project until about 2007. The report may or may not already address a number of the sections of this chapter and is currently being reviewed. SJRIO is a spreadsheet model that staff used to do a lot of the analysis for the Vernalis TMDL project. The Vernalis TMDL staff report contains a lot of relevant information including sources of salt. It is a good source, but most of the data used for that report is pre-1995, so the findings need to be updated. Our discussions noted that the sources of salt lead into the development of appropriate alternatives, so whoever does the update for the sources of salt should also work on the alternative section since both sections would share common references and data sets. An analysis of the temporal (by water-year type) variations in flow vs. concentration would provide the basis for evaluating different alternatives for drought years.

It is anticipated that this chapter could be completed by the end of 2011.

Beneficial Uses/Existing Conditions

The committee will need to come to a consensus on whether to refine any of the beneficial uses for the LSJR. As discussed in the policy meetings, refining some of the uses to "incidental" may be worth attempting.

It should be possible to reach consensus by the end of 2011, with much of the work being conducted by the policy group. However, it was not clear who would actually write this chapter. There is potential to utilize a SJRGA writer.

Water Quality Objectives

AGR- Irrigation – The main thing that needs to be done to finalize staff's draft Hoffman report is to address the public comments received. A matrix of comments is available, so these can easily be separated into policy vs. technical comments. The LSJR committee could address the policy related comments and it may be possible to hire Glenn Hoffman to address the technical comments.

AGR – Stock watering – It looks like this will be handled through a contract with Kennedy-Jenks, with funding coming from Dairy Cares.

Aquatic Life – It is not yet clear who will be doing this work. Nigel (TAC) is supposed to discuss it with people from UC and CDFG to see if something can be worked out with them.

Others - Dennis has already completed a write-up on this and felt additional information needed could come from work done by the Drinking Water Policy Committee.

Seasonality - One important issue that could be explored is establishing different objectives for AGR -Irrigation for different seasons. Part of this discussion would include actual diversions for use (e.g. timing in water rights permits) while another part of the discussion would be documenting the realities of plant sensitivity. In general, plants are significantly more salt-sensitive during the early stage of growth and most planting in the SJR basin is done in the Spring, so by June plants are hardy enough to withstand higher salinity levels. If growth stage sensitivity can be adequately supported by data and other information, it may be possible to develop objectives and times when they are applied to better reflect reality. An alternative option is to include language in the resulting amendment that specifies factors (e.g. peer reviewed documentation for a subarea) that would allow site specific/seasonal objectives to be utilized.

Implementation Program

This section would first look at the current salt management activities as well as trends in the basin as a lead in to the discussion on various alternatives and the preferred alternative.

Alternatives

Alternatives should be identified by the LSJR committee as soon as possible, because the breadth of choices will drive much of the rest of the process. Once alternatives are identified, they must be reviewed and evaluated (evaluation criteria need to be developed first). It is anticipated that a consultant would be used to develop the criteria and then provide the committee with the pros/cons of each alternative. Part of the evaluation process includes modeling to determine if the alternatives are achievable. A model must be chosen to conduct the achievability analysis. We identified three models that could be considered - CalSIMS, WARMF and SJRIO. Staff had been considering

using CalSims before this project was turned over to CV-SALTS. The selection of a model for this analysis should be based on a recommendation from the TPM.

Some factors that should be considered in the achievability analysis that are currently not quantifiable are:

- the State Board's South Delta flow and salinity objectives, which are scheduled for consideration in the Summer of 2012.
- FERC relicensing of some of the reservoirs in the basin, which are scheduled to be completed in 2014
- the SJR Restoration Project – some considerations associated with this project are that it may end up pushing slugs of salt downstream by mobilizing salt in the soil and shallow groundwater, and water may be recycled at Patterson for ag users.

Monitoring

Jeanne, Nigel and Ernie have a lot of knowledge regarding the monitoring of surface water in the SJR basin and should be able to develop a sound monitoring program. The final program should be compatible with the Regional Monitoring effort being conducted by CURES under USEPA funding.

CEQA Equivalent Documentation

The CEQA analysis must include an economic component. Dr. Hannemond from UC Berkeley has done a lot of work on agricultural economics in the SJR basin and should be considered for this work. The economic impact of the various identified alternatives has to be analyzed-- on both individual regions as well as on discharger types.