

## Preliminary Review of Site-Specific EC Study Workplans & Reports

### City of Roseville – Dry Creek WWTP

#### Report Submitted Nov. 2010

The permit calls for a study to identify EC levels that would be protective of both AGR and MUN beneficial uses. A workplan was submitted in December 2008, and approved by staff in August 2009. The workplan proposed using a transient model for determining the objective, but the City met with NPDES staff in February 2010 and proposed revising the study approach by comparing the modeling inputs used for Hoffman's South Delta study and Grattan's Woodland study with the site-specific conditions in the Dry Creek study area, and, if shown to be similar, using the recommendations of the Hoffman & Grattan models to identify an appropriate objective. The study followed the revised approach and concluded that the Dry Creek site-specific conditions are less restrictive than those of Woodland and the South Delta and that EC levels higher than those proposed by Hoffman and Grattan would be protective of crops in this study area. An objective of 900uS/cm (Recommended Drinking Water MCL) was proposed.

\*\*\*\*\*

### City of Roseville – Pleasant Grove WWTP

#### Workplan Submitted Dec. 2008

This workplan was submitted at the same time as the Roseville Dry Creek WWTP original workplan (Dec. 2008), and is almost identical with that plan. Both proposed using a transient model. However, the Dry Creek workplan was revised as described above, while this workplan was not revised.

\*\*\*\*\*

### City of Manteca WWTP

#### Workplan Submitted Jul. 2010

This workplan proposes to base its technical approach on Hoffman's South Delta report and, because the Manteca study area conditions are expected to be similar to those modeled in the South Delta study, the workplan anticipates that the EC levels modeled by Hoffman will be applicable to the Manteca study area. An approach similar to this was approved by NPDES staff for the Roseville – Dry Creek study and was used in preparing that report.

\*\*\*\*\*

### City of Colusa WWTP

#### Workplan Submitted Nov. 2009

This workplan proposes to use a steady-state model. However, in Feb. 2010, the City's consultant submitted a letter to Regional Board staff. In the letter, the consultant posed the following questions:

- 1.) Can the amount or type of study be reduced or eliminated while maintaining compliance with the NPDES permit requirements? (*This would be a Water Board decision*)
- 2.) Are there similar studies being conducted, and, if so, is there some way the City can defer the study until the results of those other studies are complete? (*This would be a Water Board decision*)
- 3.) If the City were to submit documentation stating that the landowners surrounding the discharge are willing to accept the water quality as it currently exists, can the City reopen the permit to allow deferral of the study until CV-SALTS addresses objectives on a more regional basis?

\*\*\*\*\*

### City of Vacaville - Easterly WWTP

#### Original Workplan Submitted Oct. 2008 Revised workplan submitted Sep. 2010

This study is to determine both EC and pH objectives for the study area. An initial workplan was submitted by the City in Oct. 2008. In Nov., 2008 Regional Board staff responded that the study must be based on 100% crop protection, not of the most salt-sensitive crop currently grown in the area, but of the most sensitive crop that can be grown in the area. Staff also said the report must consider economic and environmental impacts, such as using more water to leach salts, groundwater or surface water degradation, and corrosion of equipment, from irrigating at a higher EC, TDS, or pH.

In Sep. 2010, the City submitted a revised workplan. The workplan proposed using a transient model for establishing site-specific EC objectives and conducting detailed soil sampling in the study area to assess soil pH. But, before proceeding with any other tasks, the plan proposed as an initial step the resolution of significant issues through the CV-SALTS process. The issues identified were:

1. *Is a transient model acceptable?*
2. *What level of crop protection is reasonable?*
3. *What winter bare soil evaporation rate is appropriate?*
4. *What soil water root uptake pattern is most appropriate?*
5. *What is the best way to determine leaching fractions and is there a conservative assumption to use in the absence of site-specific values?*
6. *What crop type is appropriate for determining level of protection?*