

Irrigated Lands Regulatory Programs Coalition approach to Salinity Related Exceedances

The Irrigated Lands Regulatory Program (ILRP) agriculture water quality coalitions are actively engaged in the Central Valley Salinity Alternatives for Long term Sustainability (CVSALTS) process and a number are members of the Central Valley Salinity Coalition. In addition to the CVSALTS effort, coalitions whose members discharge to the San Joaquin River are working to implement the San Joaquin River at Vernalis Salinity and Boron Total Maximum Daily Loads (TMDLs).

The Irrigated Lands Regulatory Program requires a coalition to prepare a management plan, if a water quality trigger is exceeded more than once in a three year period. The management plan must include the following elements: 1) identification of agricultural source; 2) identification of management practices to be implemented; 3) schedule for implementation of management practices; 4) management practice performance goals; 5) monitoring schedule; 6) process for evaluating management practice effectiveness; 7) identification of participants who will implement the plan; and 8) a schedule for reporting to the Central Valley Water Board.

The Coalitions with salinity issues are generally relying on their participation in the CV-SALTS effort to address those management plan elements. A brief overview of the general approach used by ILRP Coalitions addressing salinity issues is provided below.

WESTSIDE SAN JOAQUIN RIVER WATERSHED COALITION

The Westside Coalitions primary goals/ activities associated with salinity are:

- Identify sources of salinity within the Westside Coalition and variations in different areas.
- Incorporate appropriate activities to address salinity as they are identified and required by the Central Valley Water Board.
- Participate in ongoing Central Valley Water Board programs for the management of salinity
- Conduct monitoring to track changes in TDS, EC, and boron to evaluate the impact of the strategy.
- Report semi-annually on the potential contributing factors to salinity and their exceedance locations.

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Westside San Joaquin River Watershed Focused Plans that addresses Salinity

<u>Waterbody</u>	<u>Focused Management Plan Start¹</u>
Ingram Creek 2009	2009
Hospital Creek	2009
Westley Wasteway	2010
Del Puerto Creek	2010
Orestimba Creek	2010
Salt Slough	2011
Poso Slough	2011

EAST SAN JOAQUIN WATER QUALITY COALITION

The Coalition is prioritizing constituents and site subwatersheds to allow for focused source identification, outreach and education. Although the Coalition is focusing on chlorpyrifos and diazinon exceedances and associated applications, management practices implemented to help reduce the runoff of these constituents are expected to also reduce the runoff of other constituents, such as salts and nutrients.

The Coalition is collecting EC, TDS, and Flow measurements on a monthly basis and calculating a “Base Salt Load Allocation.” These calculations will be used to assess compliance with the San Joaquin River at Vernalis TMDL requirements.

East San Joaquin Focused Plans that Address Salinity:

<u>Waterbody</u>	<u>Focused Management Plan Start</u>
Prairie Flower Drain @ Crows Landing Rd ¹	2008-2010
Duck Slough @ Gurr Rd	2010-2012
Hilmar Drain @ Central Ave	2012-2014
Deadman Creek (Dutchman) @ Gurr Rd	2012-2014
Hatch Drain @ Tuolumne Rd	2013-2015
Mustang Creek @ East Ave ¹	2014-2016
South Slough @ Quinley Rd	2014-2016

¹Nitrate as N exceedances.

THE SAN JOAQUIN COUNTY DELTA WATER QUALITY COALITION

Similar to the Eastside San Joaquin, the San Joaquin County Delta Coalition is prioritizing constituents and taking a focused watershed approach. Although the

¹ Note that the start dates indicated generally reflect when there will be a focused effort in the watershed. In general, salinity is not a priority constituent in those watersheds, but the management practices that are promoted to address priority constituents are generally expected to reduce salt loading.

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Coalition is focused on pesticides and toxicity, many of the practices implemented to address those constituents are expected to reduce runoff of constituents such as salt. The Coalition has identified six sites with chronically elevated levels of both EC and TDS- Sand Creek, Marsh Creek, both Grant Line Canal sites, and both Roberts Island Drain sites- are located in the Delta where ground water is very shallow. Water with high TDS is used for irrigation and discharged back to the Delta. The Coalition has indicated that although this process concentrates salts, it is only to a small degree and is not the primary cause of exceedances of the TDS trigger. As part of the Coalition's routine monitoring program, TDS and EC are analyzed.

The San Joaquin County Delta Water Quality Coalition Management Plans that Addresses Salinity:

<u>Waterbody</u>	<u>Management Plan Start</u>
Unnamed Drain to Lone Tree Creek	2008-2010
Grant Line Canal @ Clifton Court Rd.	2009-2011
Grant Line Canal near Calpack Rd	2009-2011
Terminus Tract Drain	2010-2012
Sand Creek	2011-2013
Kellogg Creek	2011-2013
Roberts Island Drain @ Holt Rd	2012-2014
Roberts Island Drain along House Rd	2012-2014

SACRAMENTO VALLEY WATER QUALITY COALITION

The Sacramento Valley Water Quality Coalition Management Plan addresses exceedances of total dissolved solids (TDS), electrical conductivity (EC), and boron. The Coalition plans to:

- Support additional source characterization for the CV-SALTS program through the ongoing ILRP monitoring effort. Additionally, data will be compiled to characterize salinity characteristics of irrigation supply waters, if these data have not already been compiled by the CV-SALTS program.
- Work with County Agricultural Departments to identify areas and drainages with elevated salinity and will compile information about potentially salt-sensitive crops grown in these drainages.
- The Coalition plans to establish specific schedules and goals for each subwatershed or for the Coalition as a whole based on outcomes of the CV-SALTS process. The parties responsible for tracking implementation of management practices cannot yet be identified, but will be documented later in the process.

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Sacramento Valley Water Quality Coalition Focused Management Plans that Address Salinity:

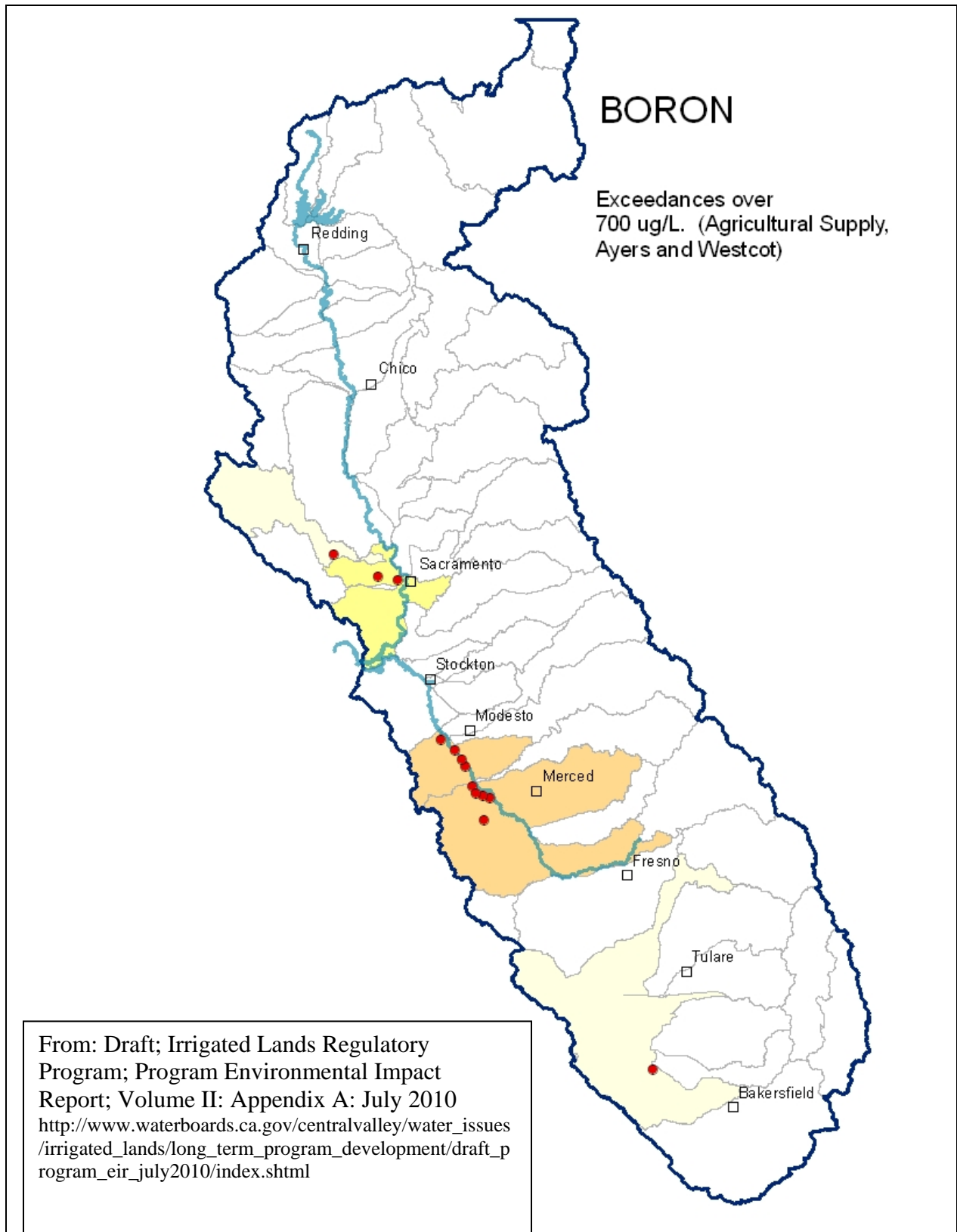
<u>Waterbody</u>	<u>Focused Management Plan Start²</u>
Gilsizer Slough	January 2010
Colusa Basin Drain	January 2010
Freshwater Creek	January 2010
Lurline Creek	January 2010
Stone Corral Creek	January 2010
Sycamore Slough	January 2010
Dry Creek	January 2010
Grand Island Drain	January 2010
Cache Creek	January 2010
Tule Canal	January 2010
Ulatis Creek	January 2010
Willow Slough	January 2010
Z-Drain	January 2010

California Rice Commission: Conditional Waiver for Rice and Rice Pesticides Program

The California Rice Coalition has no management plan requirements for salinity parameters. However, edge of field studies were conducted that included TDS, and EC readings. The Coalition reports that salt concentration in return flows are usually relatively low due to the low salinity in irrigation source water. Over 90% of the field data were less than 700 umhos/cm.

² Source identification to begin for all watersheds with salinity issues.

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