

STAFF REPORT

REVISED MANAGEMENT AGENCY AGREEMENT WITH THE UNITED STATES BUREAU OF RECLAMATION ADDRESSING SALINITY IN THE LOWER SAN JOAQUIN RIVER

Purpose

The purpose of Resolution No. R5-2014-XXXX is to approve a revised Management Agency Agreement (MAA) between the Central Valley Regional Water Quality Control Board (Central Valley Water Board) and the U.S. Bureau of Reclamation (USBR). The revised MAA replaces an initial MAA approved in 2008 to address the salinity requirements established in the *Control Program for Salt and Boron Discharges into the Lower San Joaquin River* (Control Program), also known as the Salt and Boron TMDL. The Central Valley Water Board adopted the Control Program into the Water Quality Control Plan for the for the Sacramento River and San Joaquin River Basin (Basin Plan) on 10 September 2004, in order to ensure compliance with salt and boron water quality objectives at Vernalis, the boundary of the Delta. The Office of Administrative Law approved the amendment to the Basin Plan on 28 July 2006.

Background

One of the goals of the Control Program is to achieve compliance with salt and boron water quality objectives at Vernalis without restricting the opportunity for dischargers to export salt out of the LSJR watershed. The Vernalis salinity objectives are 700 micro Siemens per centimeter ($\mu\text{S}/\text{cm}$) electrical conductivity from April 1st through August 31st, and 1,000 $\mu\text{S}/\text{cm}$ from September 1st through March 31st, as a 30-day running average, and were developed to protect the agriculture beneficial use in the southern portion of the Sacramento-San Joaquin Delta. The Control Program requires the Central Valley Water Board to use waste discharge requirements (WDRs) or waivers of WDRs to apportion salt load allocations to each of the seven geographic subareas (see Figure 1) that comprise the LSJR watershed and to salt loads imported by the Delta Mendota Canal (DMC) which is owned and operated by the USBR. The Control Program provides four means for non-point source dischargers to achieve compliance:

1. Cease discharge to surface water,
2. Discharge does not exceed 315 $\mu\text{S}/\text{cm}$ electrical conductivity (30-day running average),
3. Operate under WDRs that include effluent limits for salt, or
4. Operate under a waiver of WDRs for salt and boron discharges to the LSJR.

The Control Program also provided dischargers the opportunity to participate in a Central Valley Water Board approved real-time salinity management program (RTMP). The goal of the RTMP is to maximize salt export out of the LSJR drainage basin while meeting water quality objectives at Vernalis by timing saline discharges to those times when there is assimilative capacity in the river. Participation in an approved RTMP and attainment of salinity and boron water quality objectives constitutes compliance with the Control Program.

The Control Program includes a timeline for implementation with initial control actions on the most significant sources of salt and boron discharges to the LSJR. Priority for implementation of load allocations was given to subareas with the greatest unit area salt loading (tons per acre per year) to the LSJR. Table 1 presents the priority compliance schedule in the Control Program for each of seven subareas and the DMC.

To address impact of salt loads from the DMC, the Control Program provides USBR the opportunity to either adhere to load allocations specified in WDRs or enter into a Management Agency Agreement (MAA) with the Central Valley Water Board clarifying how USBR will mitigate imported salt loads. The Central Valley Water Board and USBR signed an MAA in December 2008. As required by the Control Program, the MAA included provisions for USBR to *“a. Meet DMC load allocations; or b. Provide mitigation and/or dilution flows to create additional assimilative capacity for salt in the LSJR equivalent to DMC salt loads in excess of their allocation”*. In addition, all USBR water rights permits related to the Central Valley Project are conditioned on meeting salinity objectives at Vernalis. The Vernalis salinity objectives have been met since the 1995 water year.

In the 2008 MAA, USBR also committed to initiate and facilitate stakeholder efforts to develop a RTMP. The 2008 MAA acknowledges uncertainty regarding the potential for establishing a RTMP for the river. To address this uncertainty, specific tasks were incorporated into the MAA including performing initial RTMP monitoring, quantification, and evaluation. After completion of these items under the MAA, the Central Valley Water Board and USBR were to review the results to better define future efforts in an updated MAA.

During a Central Valley Water Board meeting on 3 February 2011, staff from both agencies gave presentations on the status of the MAA activities performed in 2009 and 2010, and the efforts under way to update the agreement. At that time, Central Valley Water Board staff was directed to review USBR technical studies, once completed, and prepare an updated MAA.

Since February 2011, USBR staff has initiated or completed several studies as follows:

- Two technical LSJR Watershed salinity memorandi: 1) Water Budget, Westside Salt Assessment, and 2) Salt and Nitrate Budget, Westside Salt Assessment.
- Pilot studies tracking salinity discharges from Mud Slough, the Grassland Resource Conservation District (GRCD) and the Grassland Bypass Project (GBP).
- A pilot salt load forecasting model with input from local stakeholders as well as staff from the Department of Water Resources and Central Valley Water Board.
- A RTMP framework document in collaboration with the Westside San Joaquin River Watershed Coalition and other interested parties.

Based on the results of the efforts, staff from both agencies and local stakeholders determined that an RTMP for the control of salinity was feasible, so agency staff began drafting a revised MAA. The revised MAA outlines USBR commitments over a five-year term and references a workplan that USBR will develop annually. The workplan will prioritize and forecast needs and funding for each coming year over the term of the MAA. The first workplan is to be submitted

for approval on 31 December 2014, after review by stakeholders. Subsequent workplans are due 90 days prior to the beginning of the next federal fiscal year. Workplans will document the following:

- Program status.
- Descriptions of proposed activities.
- Schedule of activities.
- Funding sources of proposed activities.
- Public review process and response to comments.

In the revised MAA, USBR agrees to the following:

- Offset a minimum of 25% of the excess DMC salt load, participate in projects to reduce salt load, participate in projects to improve discharge scheduling, and take other actions to provide assimilative capacity for salt in the LSJR.
- Lead and support a Central Valley Water Board approved RTMP.
- Submit annual work plans for approval 90 days prior to the beginning of the next federal fiscal year, with the first due by 31 December 2014.
- Implement the annual work plans.
- Submit annual activities reports 90 days after the end of the federal fiscal year.
- Continue to provide technical support and appropriated financial assistance for salinity management to wildlife refuges in the SJR and the Grassland Resource Conservation District and Federal Water Supply Contractors.
- Pursue funding including grant funding for salinity control efforts in the LSJR basin.

In the revised MAA, the Central Valley Water Board agrees to the following:

- That the successful and timely implementation of the MAA is a cooperative means of achieving the requirements set forth in the Basin Plan.
- The RTMP will be developed jointly between the Central Valley Water Board, USBR, and stakeholders.
- Continued evaluation of USBR's progress and support its efforts toward MAA implementation.
- Regular presentations describing USBR's activities and assessing the RTMP at public meetings.

In the revised MAA, both agencies agree to the following:

- Comply with State and Federal laws and regulations.
- Results of studies completed under the first MAA and current circumstances warrant an update of the MAA.
- Revisions to the MAA must be signed by the Central Valley Water Board Executive Officer and the USBR Mid-Pacific Regional Director. Significant revisions to the MAA will be made part of the Central Valley Water Board public review process.
- Annual activities reports and work plans will be reviewed by staff of USBR and Central Valley Water Board and stakeholders before finalization.
- Reclamations salinity management program to consist of dilution flow releases, salt load reduction activities, mitigation actions, CV-SALTS participation, San Joaquin River Restoration Project reporting, and other actions to be determined as required.

The draft revised MAA was released for public review and comment on June 4, 2014. Comments were received from the San Joaquin Tributary Authority and Stockton East Water District. Comment letters were posted on the Central Valley Water Board Webpage at: http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/vernalissalt_boron/index.shtml#aug2014draftmaa . Central Valley Water Board, USBR and San Joaquin Valley Drainage Authority have prepared responses which have been posted at the same website.

Parallel Resolution

Also, at this time, Central Valley Water Board staff are bringing Resolution No. R5-2014-YYYY for Board consideration to approve a RTMP framework document prepared by USBR and LSJR stakeholders.

Other Activities

Although stakeholders are committed to developing a fully functional RTMP, several activities are being conducted in parallel with the effort:

- USBR is continuing to release mitigation flows to meet its water rights permit requirements including compliance with the Vernalis salinity objectives,
- Provisions of the Control Program have been incorporated by reference into both the Western San Joaquin and Eastern San Joaquin WDRs General Orders under the Irrigated Lands Regulatory Program, and
- The Central Valley Water Board staff is working with LSJR stakeholders on the identification of appropriate salinity and boron water quality objectives for the river between its confluence with the Merced River and Vernalis. The RTMP is being evaluated as one of the implementation alternatives to meet salinity objectives within that reach of the river.

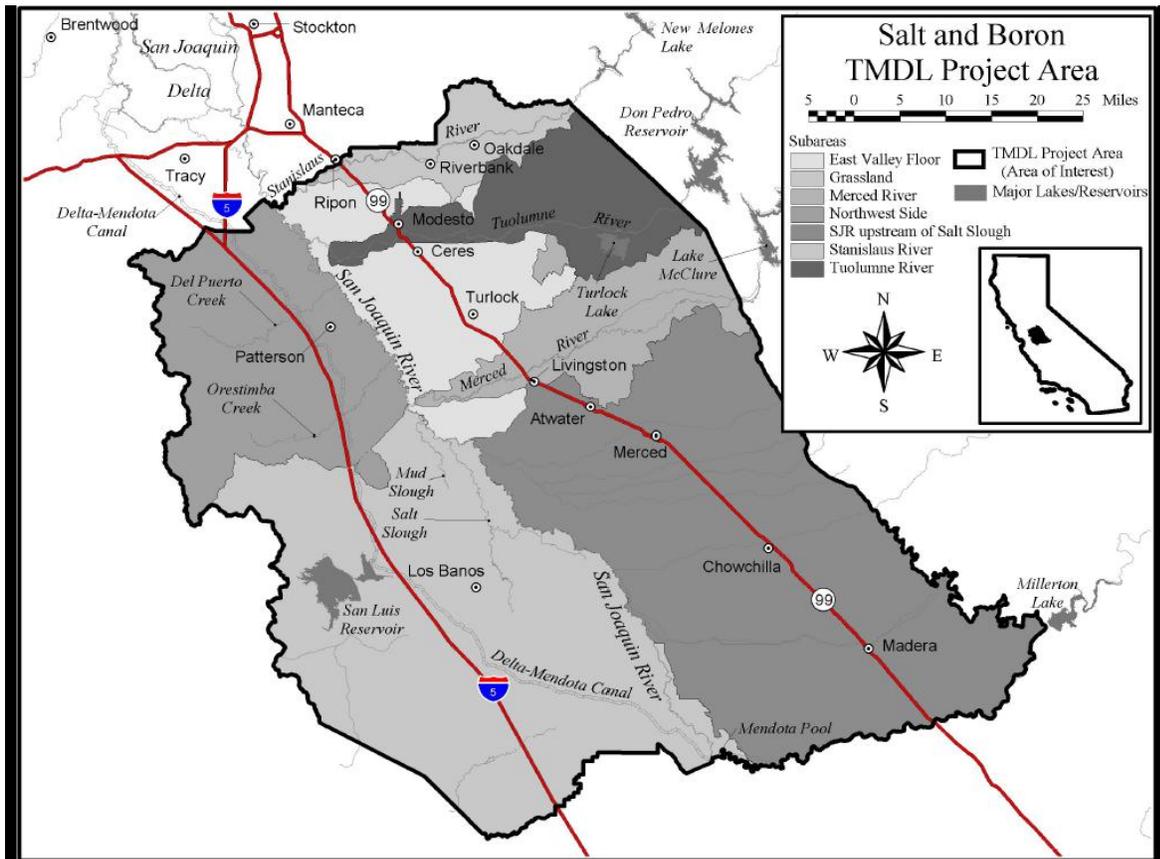


Figure 1. Control Program Subareas

Subarea	Map No.	Wet through Dry Water Year Type Deadline	Critical Water Year Type Deadline
Northwest Side	4	July 28, 2014	July 28, 2018
Grassland	2	July 28, 2014	July 28, 2018
Delta Mendota Canal (DMC) ^a	labeled	July 28, 2014	July 28, 2018
Tuolumne River	6	July 28, 2018	July 28, 2022
East Valley Floor	3	July 28, 2022	July 28, 2026
SJR Upstream of Salt Slough	1, 1a	July 28, 2022	July 28, 2026
Merced River	5	July 28, 2022	July 28, 2026
Stanislaus River	7	July 28, 2022	July 28, 2026

^a DMC is not a Subarea

Table 1. Lower San Joaquin Subarea Salt and Boron Control Program Compliance