

Water Quality Report Card		Salt Impacts to the Delta from the Lower San Joaquin River	
Regional Water Board:	Central Valley, Region 5	STATUS	<input type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input type="checkbox"/> Improvement Needed <input checked="" type="checkbox"/> Targets Achieved/Water Body Delisted
Beneficial Uses Affected:	AGR		
Implemented Through:	WDRs, MAA w/USBR	Pollutant Type:	<input type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input type="checkbox"/> Legacy
Effective Date:	July 2006	Pollutant Source:	Irrigated Crop Production
Attainment Date:	2014		

Water Quality Improvement Strategy

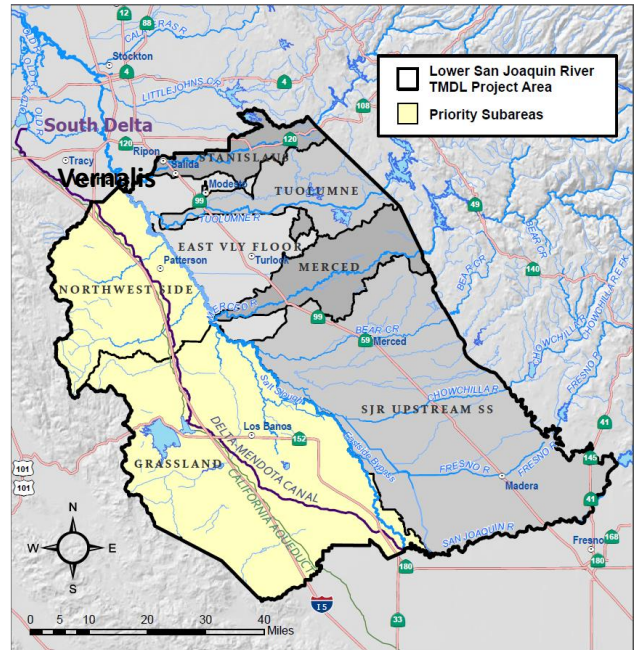
The [Salt and Boron TMDL](#) was approved by the Central Valley Regional Water Board (CVRWB) in 2004 to protect the beneficial uses in the Sacramento – San Joaquin Delta. It focuses on achieving salinity and boron water quality objectives (WQOs) in the Lower San Joaquin River (LSJR) near Vernalis, where it enters the Delta. The primary source of salinity in the LSJR is agricultural irrigation return flows from lands on the west side of the Basin. These lands receive supply water pumped from the Delta and delivered through the Delta-Mendota Canal (DMC) by the U.S. Bureau of Reclamation (USBR). Irrigation practices in these subareas have raised local water tables, resulting in subsurface drainage that leaches salt from saline soils and discharges it to the LSJR. The salinity issue is exacerbated by dams on the Upper San Joaquin, Merced, Tuolumne, and Stanislaus Rivers that restrict high quality Sierra Nevada dilution flows from entering the LSJR.

TMDL Waste Load Allocations/Load Allocations

As part of the TMDL implementation program, CVRWB and USBR signed a [Management Agency Agreement](#) to address salt imports from the DMC. The TMDL apportions salt load allocations to the DMC and each of seven geographic subareas within the LSJR Basin. The allocations are established through waste discharge requirements (WDRs), which allow an alternative to discharge limits by participation in a [CVRWB-approved Real-Time Salinity Management Program](#) (RTMP). This can maximize removal of salt from the basin while maintaining the salinity WQOs at Vernalis. The TMDL schedule requires early compliance in the two priority subareas on the west side of the river basin because they contribute the largest salt load per acre to the LSJR.

SALINITY WQOs -Vernalis reach only	
Irrigation Season (Apr 1 – Aug 31)	Non-Irrigation Season (Sep 1 – Mar 31)
700 $\mu\text{S}/\text{cm}$	1,000 $\mu\text{S}/\text{cm}$

Watershed Map



Water Quality Outcomes

- Electrical conductivity (a measure of salinity) and boron WQOs are being attained in the LSJR at Vernalis. The 3-mile long LSJR segment between Vernalis and the Stanislaus River was delisted in the [2014 Integrated Report](#).
- TMDL compliance by dischargers in the two high-priority westside subareas was attained with the Central Valley Water Board approval of their RTMP.
- USBR continues to support the RTMP efforts to reduce overall salt load, and provide dilution flows.
- The [Grasslands Bypass Project](#) has contributed to salt and boron load reductions.

Lower San Joaquin River at Vernalis

30-day Running Average Electrical Conductivity

