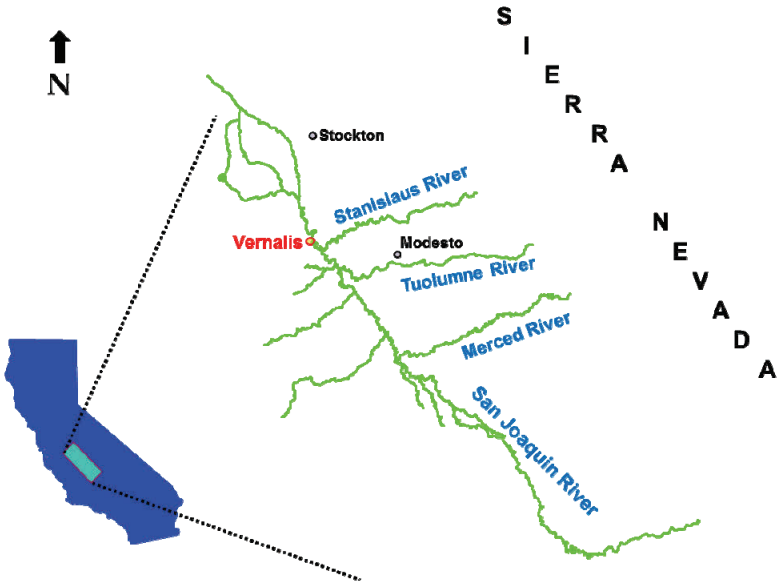
Water Quality Report Card		Salt and Boron in Lower San Joaquin River	
Regional Water Board:	**Central Valley, Region 5**	**STATUS**	☑ **Conditions Improving** ☐ Data Inconclusive ☐ Improvement Needed ☐ Targets Achieved/Water Body Delisted
Beneficial Uses Affected:	AGR		
Implemented Through:	WDRs, MAA w/USBR		
Effective Date:	July 2006		
Attainment Date:	2014-2022 for Wet and Dry years, and 2018-2026 for Critical Years	**Pollutant Type:**	☐Point Source ☑ Nonpoint Source ☐ Legacy

Water Quality Improvement Strategy

The Salt and Boron TMDL for the Lower San Joaquin River (LSJR) was developed to protect beneficial uses in the Sacramento – San Joaquin Delta. The TMDL focuses on achieving salinity and boron water quality objectives (WQOs) for the LSJR. The primary source of salinity in the LSJR is irrigation return flows from agricultural lands located on the west side of the LSJR basin which receive supply water from the U.S. Bureau of Reclamation's (USBR) Central Valley Project's Delta-Mendota Canal (DMC). The salinity issue is exacerbated by dams constructed on the Upper San Joaquin, Merced, Tuolumne, and Stanislaus rivers that restrict high quality dilution flows entering the LSJR. In addition, irrigation practices on the west side of the basin have raised local water tables, resulting in subsurface drainage that transports salt, leached from the marine formations beneath the west side of the basin, to the LSJR.

As part of the TMDL implementation program, the Central Valley Regional Water Board and the USBR entered into a Management Agency Agreement (MAA) in 2008, renewed in 2014, to address salt imports from the DMC. The TMDL apportions salt load allocations to the DMC and each of seven geographic subareas within the project area. The TMDL implementation schedule is prioritized with control actions beginning in the areas with the largest salt loads. TMDL salt load allocations are established through waste discharge requirements (WDRs), however dischargers may have these allocations waived if they participate in a Central Valley Water Board-approved real-time management program that maximizes removal of salt from the basin while maintaining salinity WQOs in the San Joaquin River at Vernalis (the boundary of the Sacramento-San Joaquin Delta).

Lower San Joaquin River Watershed

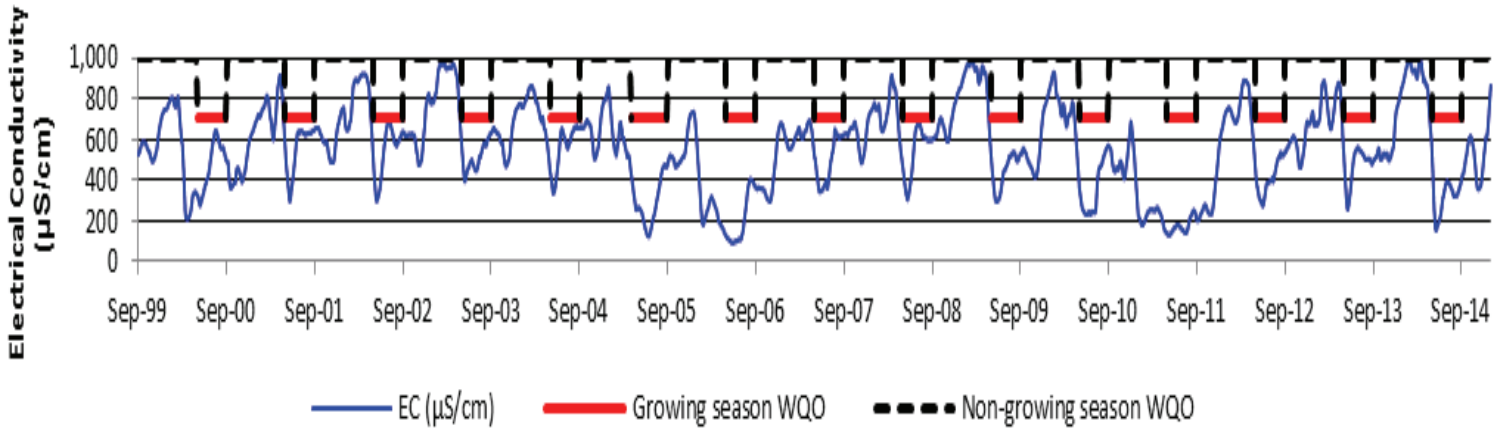


Water Quality Outcomes

- San Joaquin River Salinity WQOs were continuously met at Vernalis from 1993 – 2014.
- In December 2014, the Central Valley Regional Water Board approved the real-time salinity management program (RTMP) developed by agricultural and wetland dischargers on the west side of the LSJR.
- In the MAA, USBR agreed to support RTMP activities, lead efforts to reduce overall salt load to the San Joaquin River, and continue providing freshwater dilution flows as needed.
- The Grasslands Marshes Selenium TMDL has also reduced salt and boron loads to the LSJR.

Lower San Joaquin River at Vernalis

30-day Running Average Electrical Conductivity



December 2015