

# Real Time Salinity Management Program Framework

- Meet salinity water quality objectives at Vernalis
- Allow export of salt loads in accordance with the provisions in the Basin Plan from surface waters during times of river assimilative capacity
- Reduce the reliance on New Melones Reservoir for meeting water quality objectives for salinity at Vernalis
- Establish an organizational approach for the continuing development, implementation and coordination of RTMP activities

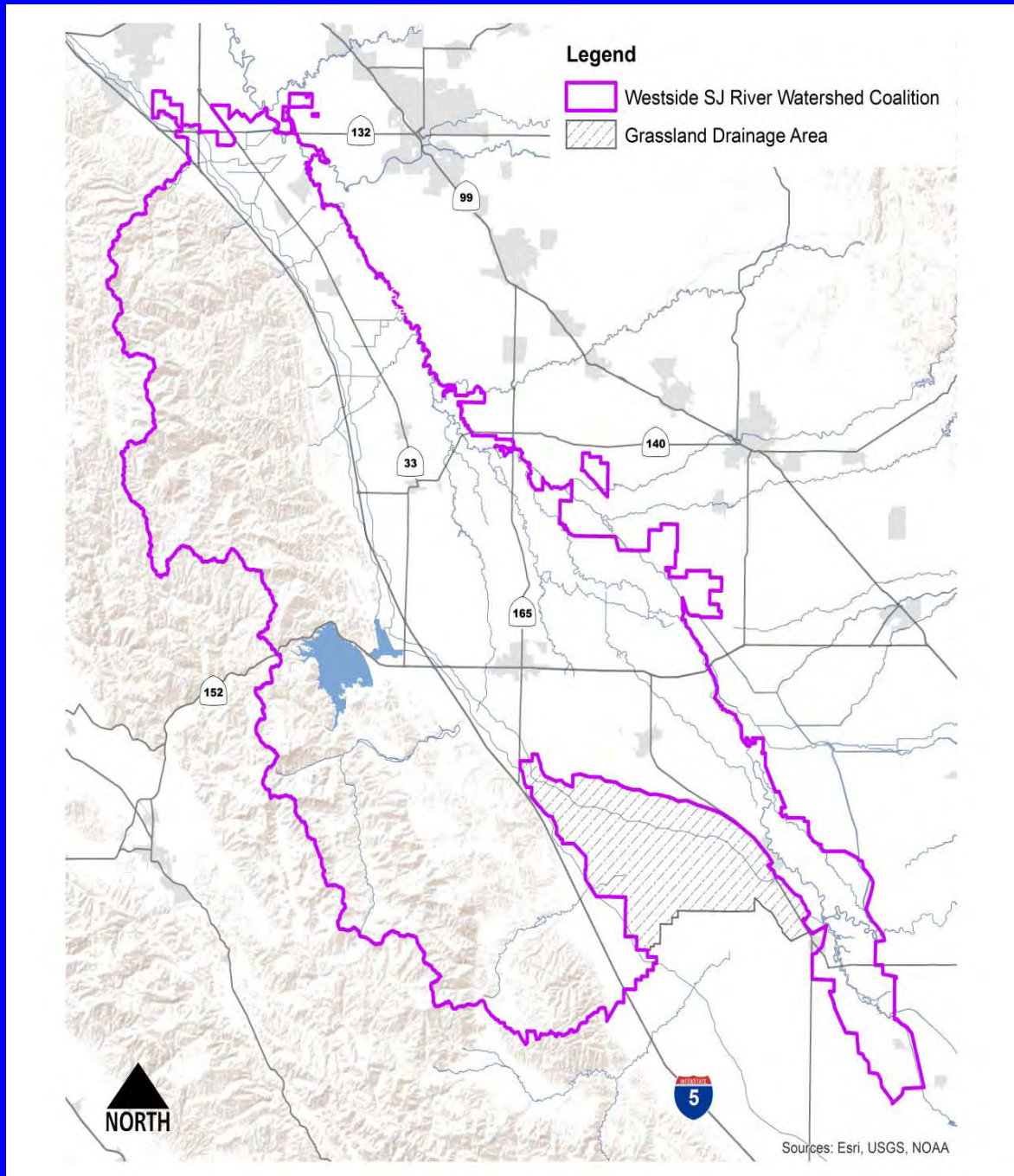
# Components of a RTMP

- Organization Structure for Participants
- Monitoring Network
- Data Management
- Modeling/forecasting
- Physical infrastructure and changes in management practices, as needed
- Funding base

# Memorandum of Understanding

Parties participating in the RTMP Framework will be organized under MOU. The initial participants are expected to be the Westside San Joaquin River Watershed Coalition on behalf of participating agencies and individuals within its boundaries and the Grassland Basin Drainers on behalf of all of its participants, along with Reclamation and other Cooperating Agencies that wish to participate. The MOU will allow for participation by districts, coalitions, or individuals in each of the other identified sub-basins, who may join at the outset or later on. These parties are collectively referred to as the “RTMP Participants” or the “Stakeholders.” The MOU will be executed by July 28, 2014

# Map – Westside Coalition and Grassland Drainage Area



# Phase 1 – Initiation Phase

- Completed prior to first compliance date of July 28, 2014
- Identify the monitoring stations necessary for the River Forecast Model.
- Develop a River Forecast Model approach for the RTMP.
- Determine the appropriate forecasting interval.
- Develop operation and maintenance requirements for the monitoring stations (for the forecasting model) along with costs and funding for the monitoring stations.
- Continue pilot studies on: tracking discharge salinity that includes existing activities and monitoring in the Mud Slough drainage area (including the drainage of the GRCD and the GBP); and salt control techniques at GBP.
- Develop a MOU to organize participants and provide a mechanism for additional participants.
- Develop Management Agency Agreement between Reclamation and the Central Valley Water Board that identifies Reclamation activities supporting a RTMP.

# Phase 2 – Development Phase

- Begin at first compliance date and complete in 12 months.
- Stakeholders participating in the RTMP will demonstrate and refine salinity management methods. Stakeholders can evaluate the GRCD demonstration project networked monitoring and control system and the GBP salinity control techniques for useful program development information.
- Participants throughout the program will as necessary improve the existing monitoring stations, install additional stations, and cooperate to further develop a model to be used to forecast SJR assimilative capacity.
- Initial participants in the RTMP will cooperate under the MOU including developing approaches for funding the necessary activities.
- Develop the data platform to support the River Forecast Model.
- Outreach will continue for additional stakeholders.

## Phase 3 – Early Implementation Phase

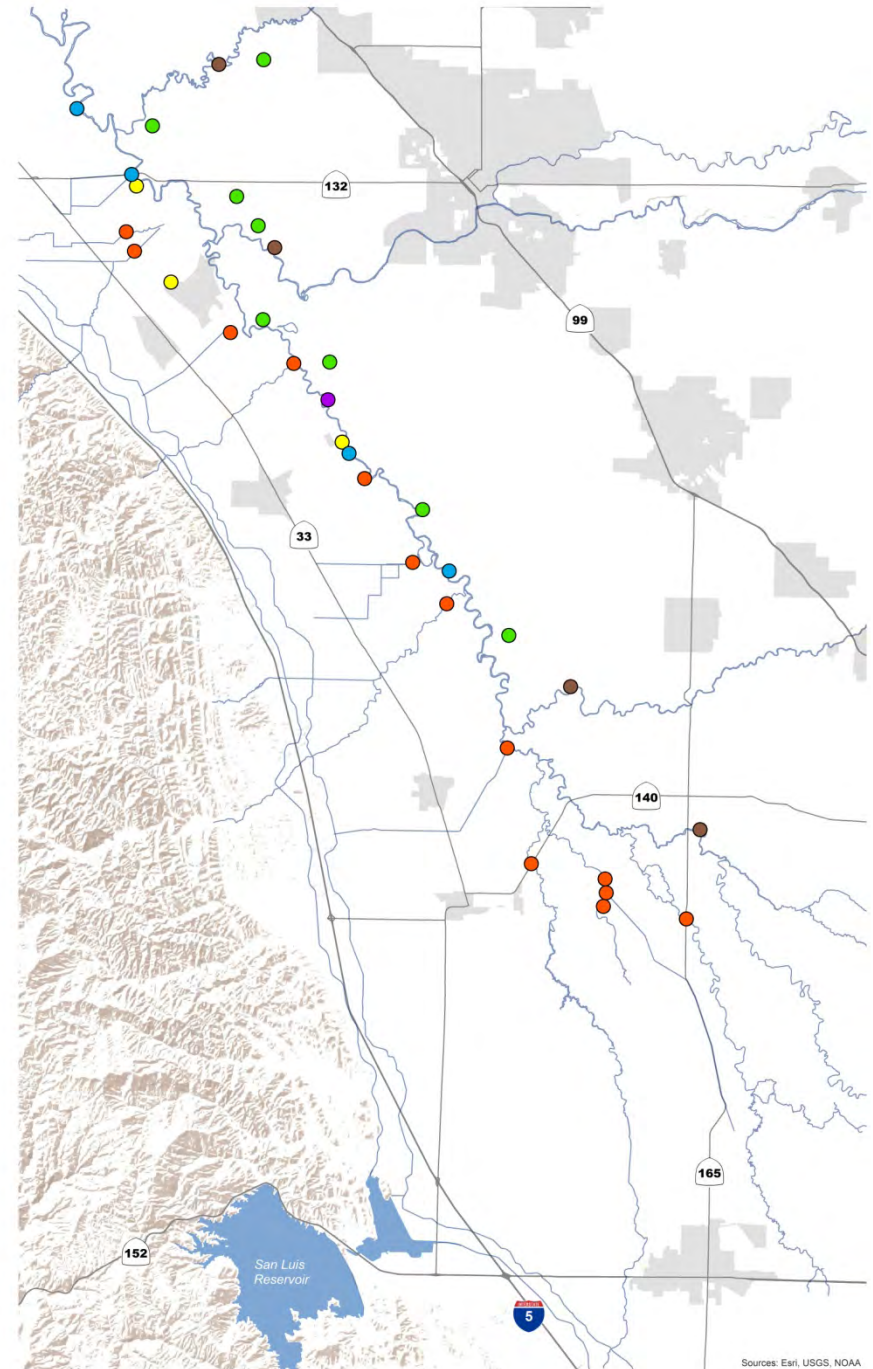
- Complete 36 months from first compliance date.
- One or more cooperating agencies or other entities will conduct programmatic weekly forecasting of assimilative capacity in the SJR. Data sharing is of utmost importance to the successful implementation of the RTMP; key stakeholders will be asked to share flow and water quality information throughout the basin.
- The RTMP participants will analyze the need for additional infrastructure and identify necessary funding requirements through the MOU.
- Develop and recommend specific additional management practices needed to better coordinate the real time operation of discharges to the San Joaquin River.
- Continue outreach for additional stakeholders.

# Phase 4 - Implementation Phase

- Completed 60 months from first compliance date.
- RTMP Participants will be implementing monitoring, data networking, management practices and utilizing the forecast model to coordinate the timing of discharges.
- RTMP participants will be addressing long-term funding and management needs.
- Additional parties would join by their Basin Plan compliance date. The future level of participation by additional regulated parties in the real time management program is difficult to predict. It is anticipated, however, since the alternative will be fixed load allocations, the coordinated and collaborative approach envisaged under a RTMP would be more cost-effective in the long term.
- It is further anticipated that during Phase 4 continuous implementation will bring about improvements to data processing, quality assurance and the river assimilative capacity forecast modeling.



- River Sites
- Tributary Sites
- Westside Discharge Locations
- Eastside Discharge Locations
- Diversion Sites
- Wastewater Treatment Plants



# Examples of Management Control Activities

- Grassland Resource Conservation District Monitoring Program
- Grassland Bypass Project/Panoche Drainage District Selenium and Salt Control Program
- Patterson Irrigation District Marshall Rd and Northside Regulating Reservoirs