

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Monitoring Special Study Stakeholder Engagement

Technical Workgroup #5: The 1980 Report



March 17, 2022, 11:00 am -12:30 pm

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Scope of the MSS

- MSS is a separate document from the COP
- Focus is on the interior Southern Delta, including Vernalis inflows (hypothetical and observed)
- Involves monitoring, data collection, and more robust modeling and data analytics through technical studies



Goals of the MSS

Work with stakeholders and State Water Board staff to achieve the following:

- 1) Characterize the spatial and temporal distribution and associated dynamics of water level, flow, and salinity conditions in the Southern Delta waterways.
- 2) Identify the extent of low or null flow conditions and any associated concentration of local salt discharges.
- 3) Inform a Long-Term Monitoring a Reporting Plan that will:
 - i. Assess attainment of the salinity objectives
 - ii. Include specific compliance monitoring locations
 - iii. Recommend monitoring protocols for a reach-based salinity objective within the three river segments

Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

December 12, 2018

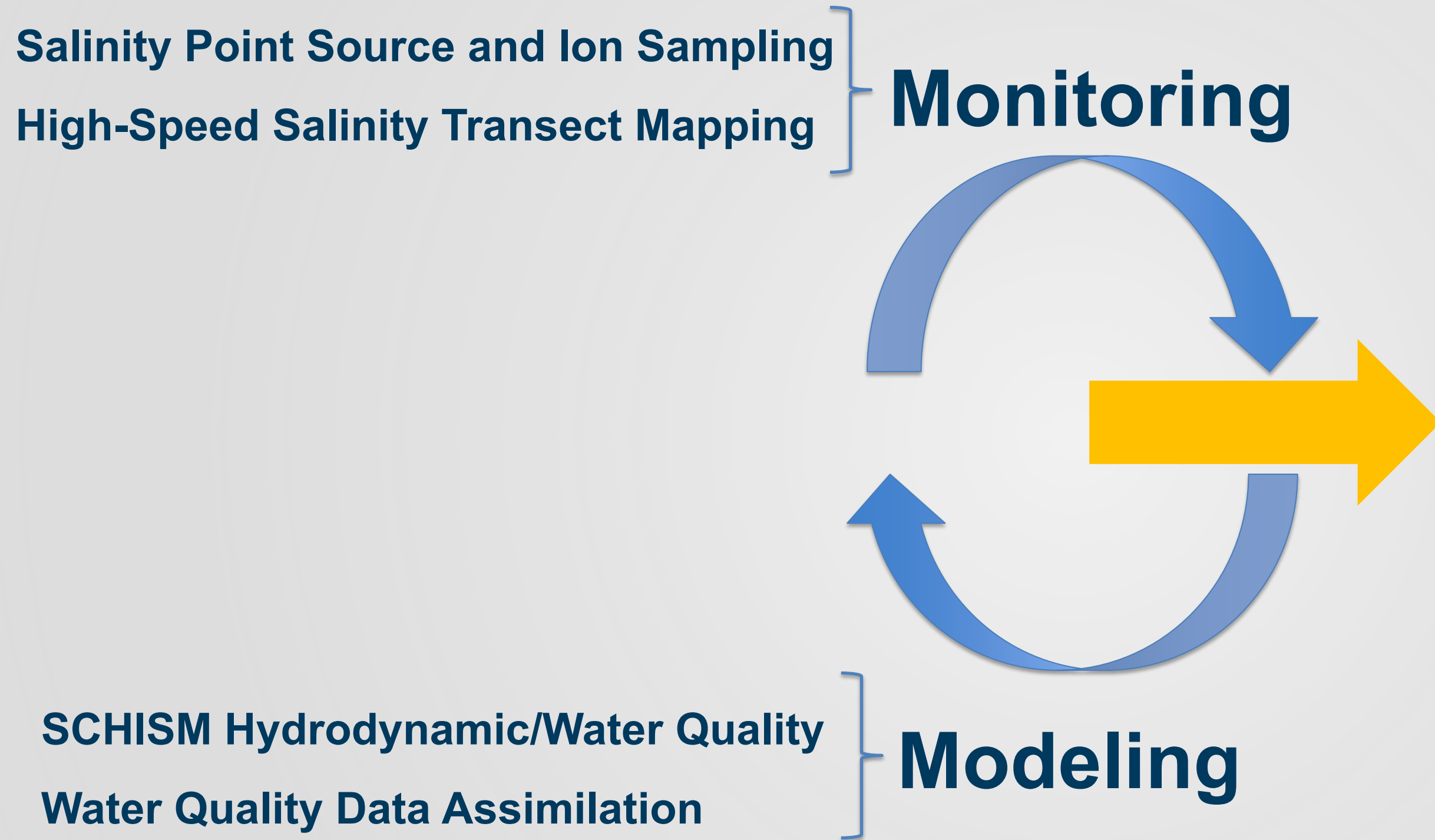


State Water Resources Control Board



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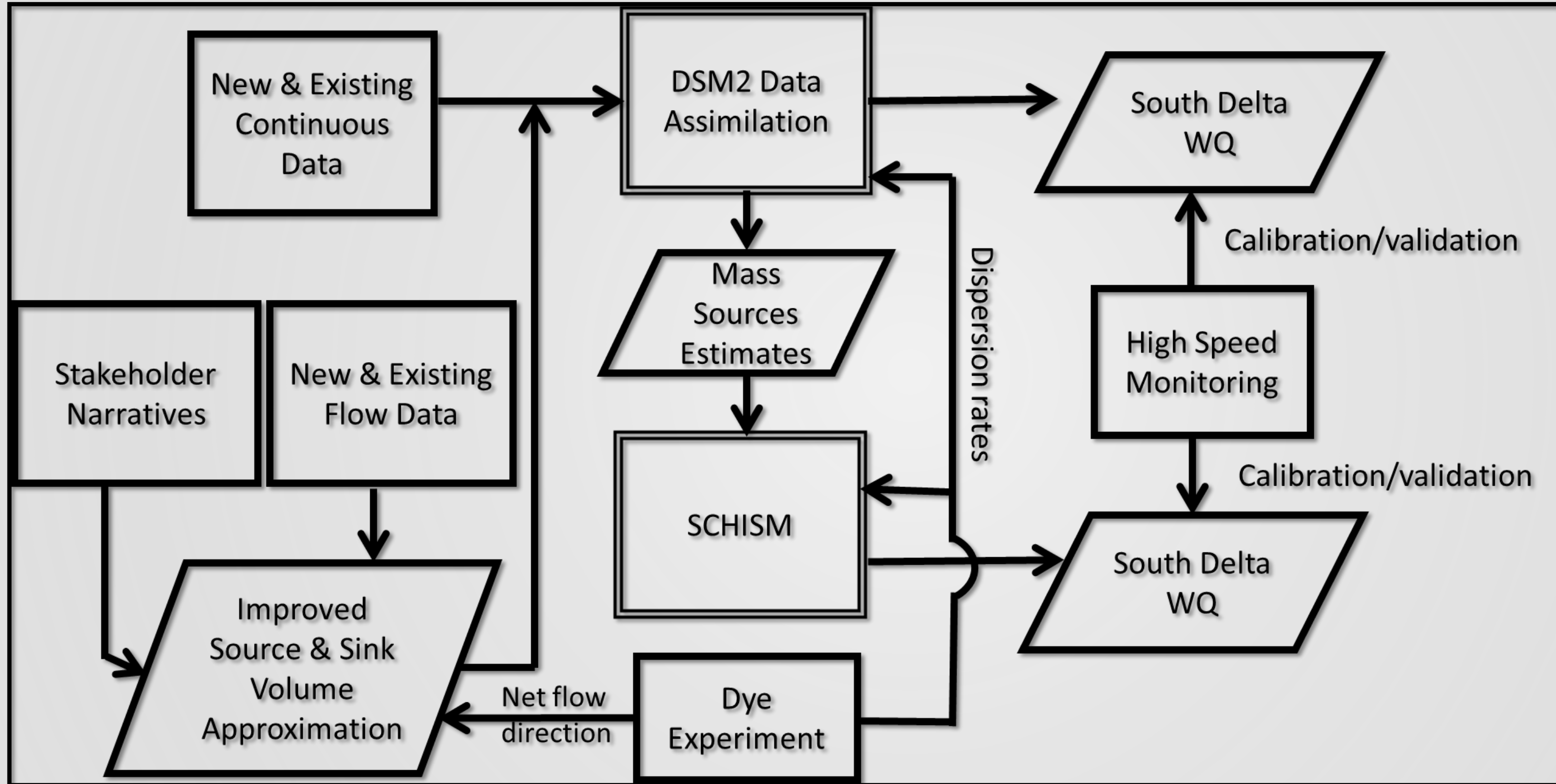
MSS Technical Studies & Alignment With Goals



- Improved characterization of SD salinity, flow, and stage
- Identification of null flow zones and concentrated salinity
- Recommendations for modernized compliance objectives



More Complicated MSS Diagram



Framework of 1980 Report

- Used available data to estimate CVP impacts on flow/mass loads in the San Joaquin River above Vernalis
- "Vernalis" is used as an indicator for conditions in the south Delta
- Study of Delta processes deferred

EFFECTS OF THE CVP
UPON THE SOUTHERN DELTA WATER SUPPLY
SACRAMENTO-SAN JOAQUIN RIVER DELTA, CALIFORNIA

JUNE 1980

The impacts of upstream development on the inflow to the Delta are measured mainly in the flow and quality of the San Joaquin River at Vernalis, hence data for this location are crucial to the investigation. (p. 22)



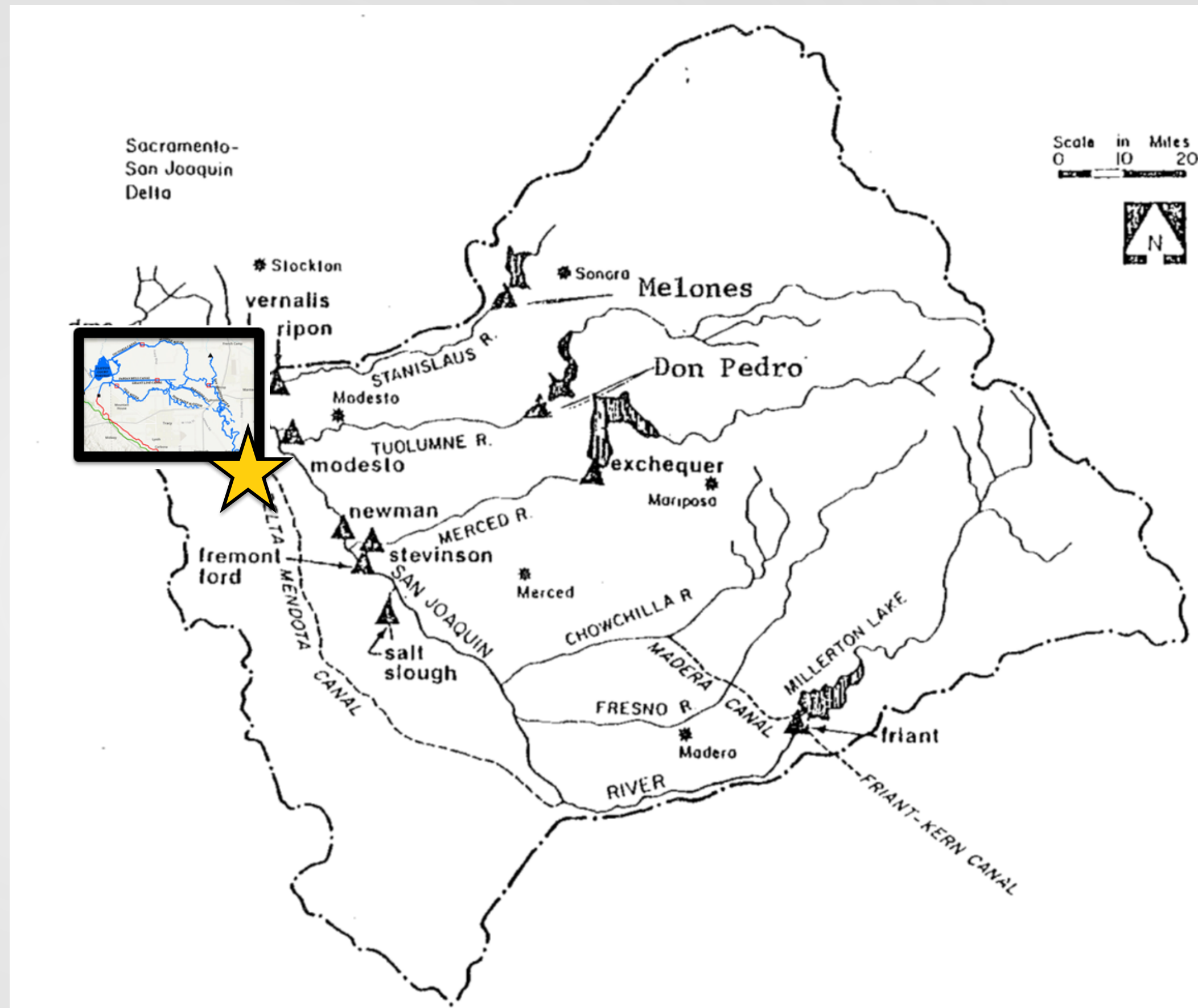
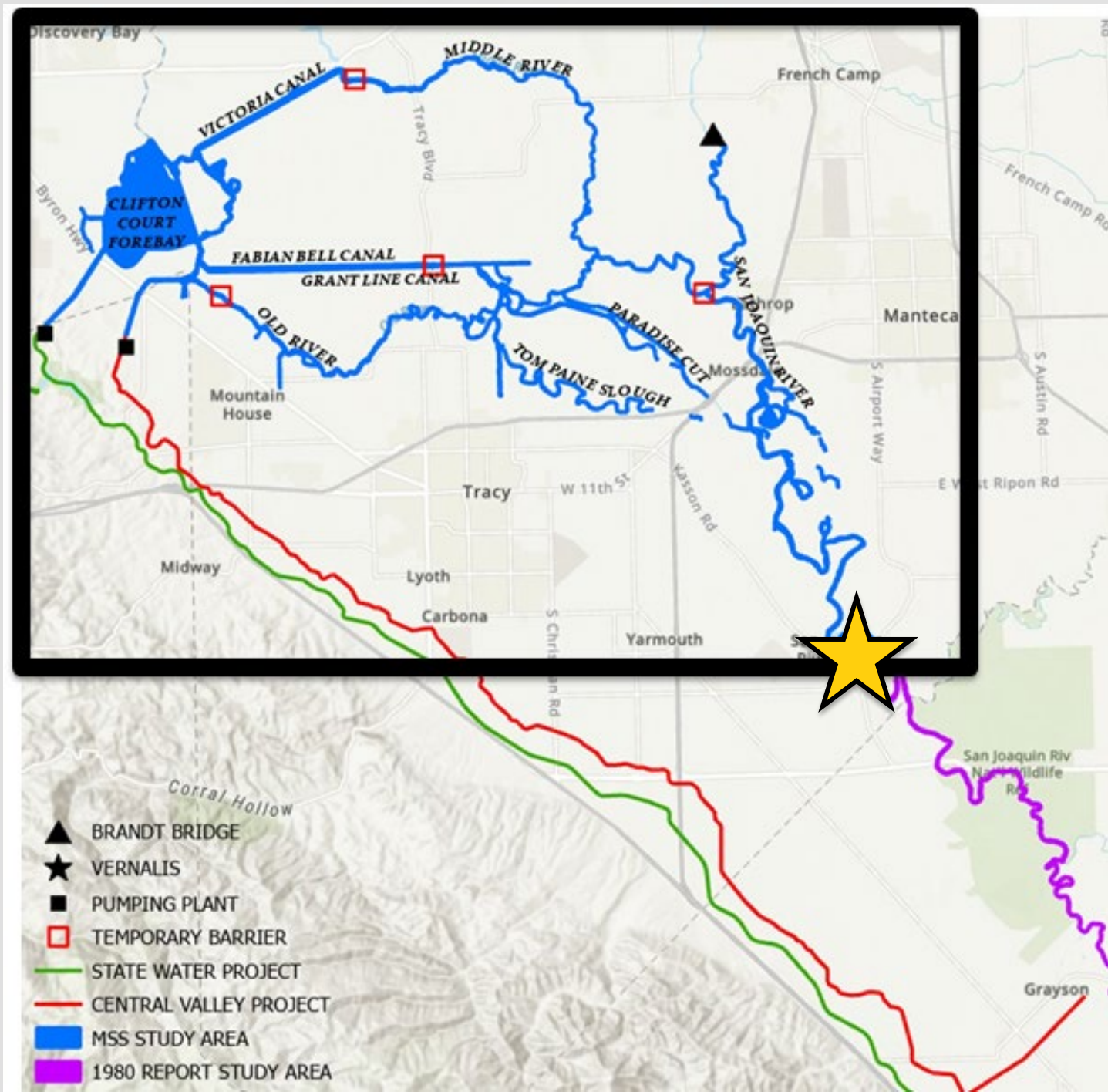


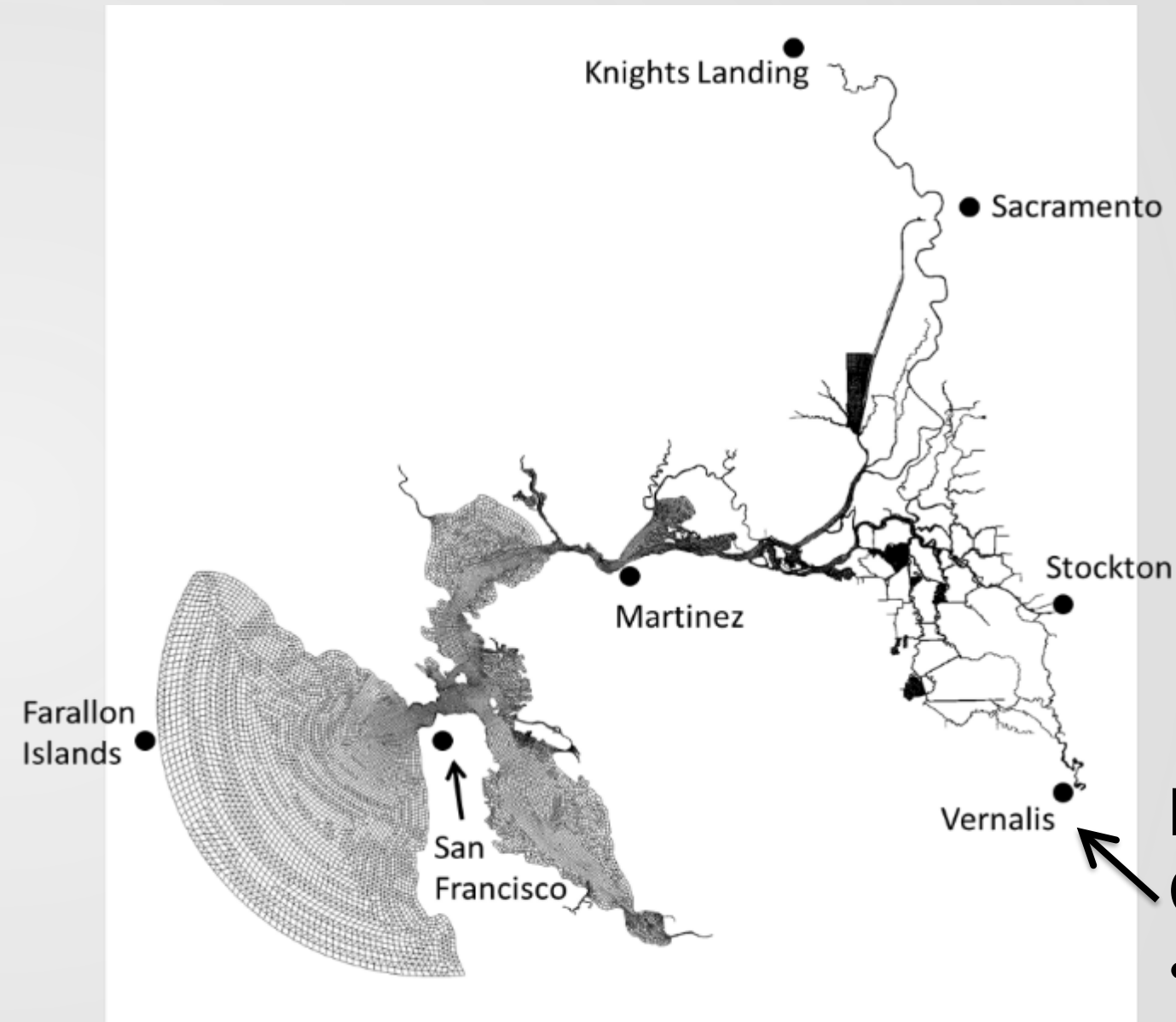
Figure III-3 SAN JOAQUIN RIVER BASIN STREAM FLOW GAGING STATIONS



Vernalis as an MSS Boundary

Hydrodynamic models expect flow/quality at Vernalis

- We can vary this around historical
- Groundwater water quality history has no “slot”
- Natural, physical decoupling



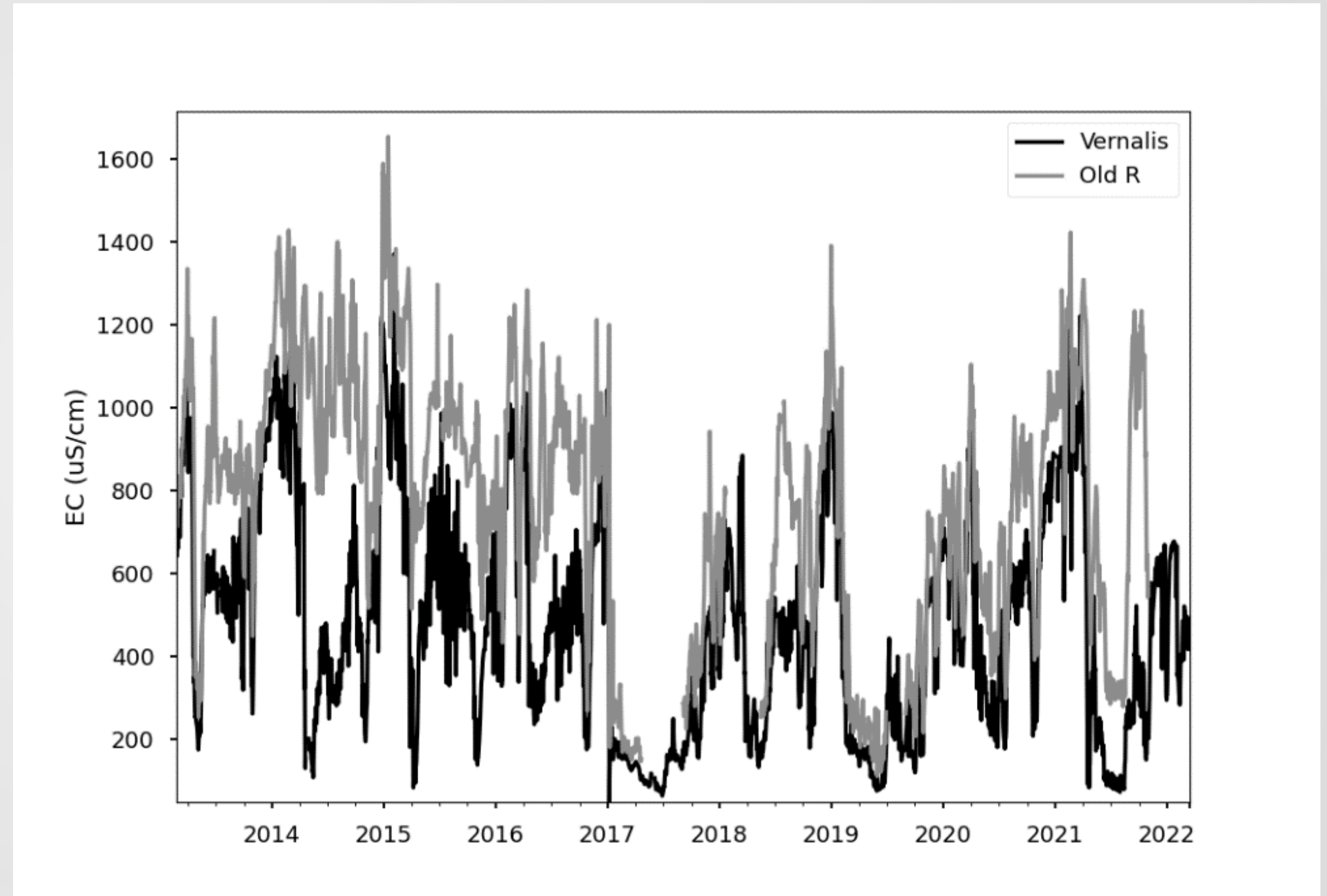
Boundary Conditions:

- Flow
- Constituents (salinity)



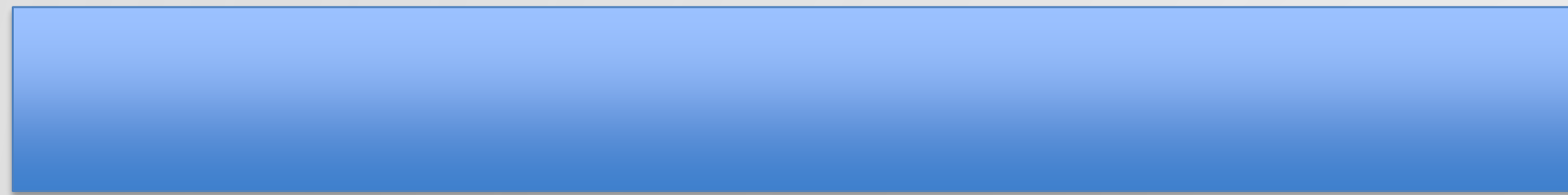
Vernalis and Internal Processes

- Much happens in the Delta after Vernalis
- Both important
- Left as unfinished work in 1980



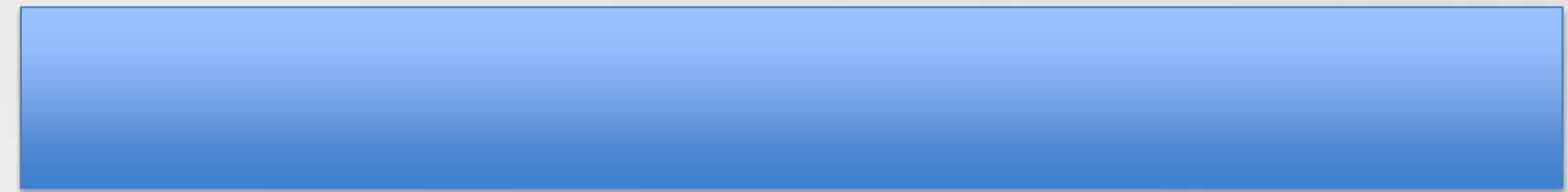
Comparison to MSS

MSS



- Below Vernalis
- SWP
- CVP
- Temporary Barriers

1980 Report



- Above Vernalis
- Pre-SWP
- Pre-CVP vs CVP
- Pre-Temporary Barriers



Other Resources and Efforts

- CV Regional Water Board Control Program for Salt and Boron Discharges into the LSJR (aka the **Salt and Boron Total Maximum Daily Load**):

https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/san_joaquin_salt_boron/

- **Management Agency Agreement** between CVWQCB and USBR:

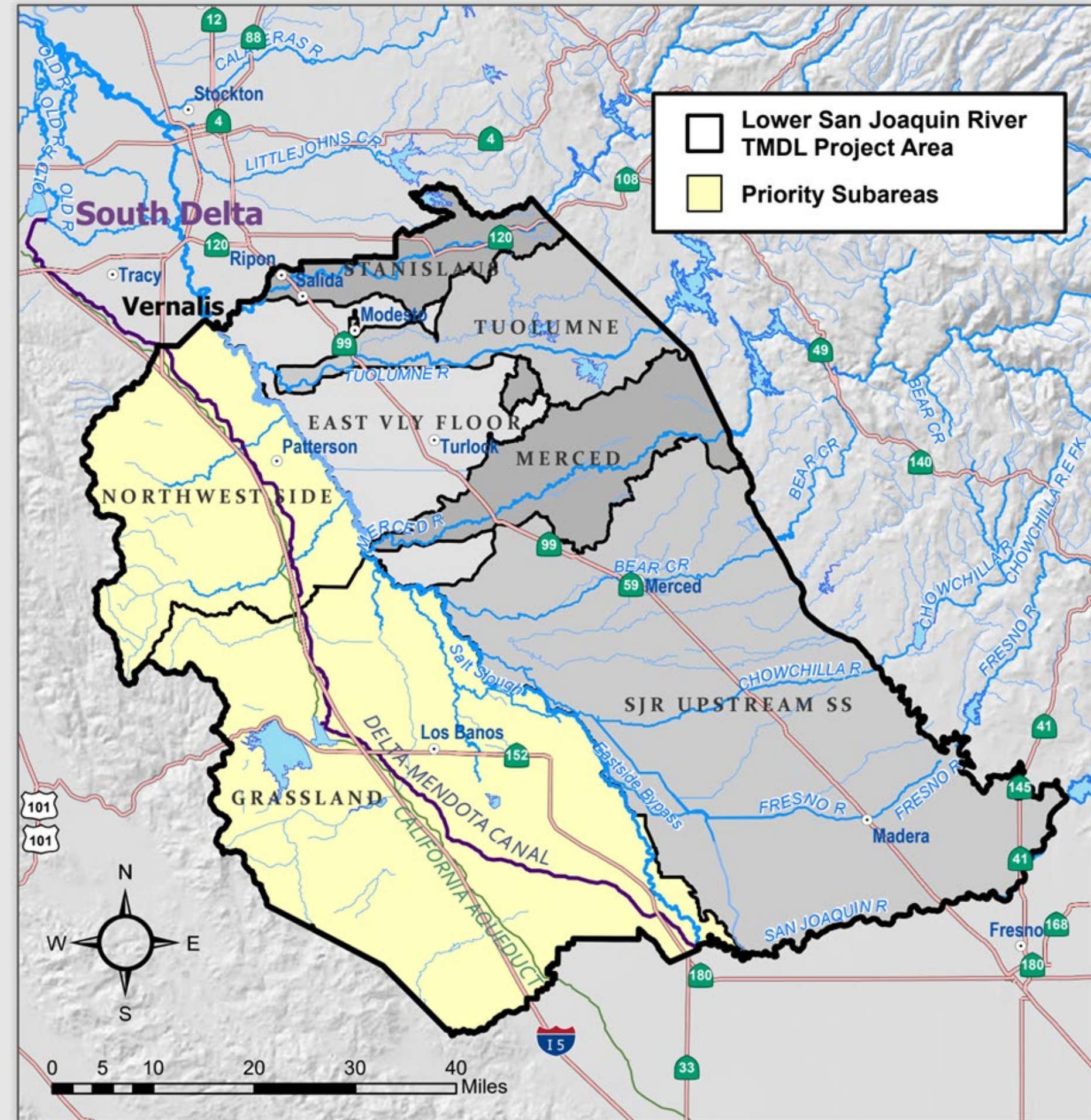
<https://www.usbr.gov/mp/ptms/docs/2014-management-agency-agreement.pdf>

- **Real-Time Salinity Management Program:**

https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/vernalissaltboron/realtime_management/rtmp_2018_mou_signed.pdf

- **USBR Program to Meet Standards:**

<https://www.usbr.gov/mp/ptms/index.html>



Other Resources and Efforts (continued)

- **San Joaquin River WQ Improvement Project and Long-Term Stormwater Management Plan:**
<https://www.sldmwa.org/grasslandbypass/LTSWMP%20Addendum%20080519.pdf>
- **CV-SALTS (Central Valley Salinity Alternatives for Long-term Sustainability) Salt Control Program:**
<https://www.cvsalinity.org/salt-program/>
- **San Joaquin River Restoration Program:** <https://www.restoresjr.net/>



Other 1980: What About Water Levels?

- MSS purpose statement includes water levels
- 1980 report describes water level experiments
 - Pre-barrier
 - Are these hard or easy to replicate?
- Scope & biggest questions of concern?
 - Local conveyance? Exports with barrier in place?



Next Steps on the MSS

- April 2022
 - Send MSS draft study plan to stakeholders and State Water Board for review and comment
 - Schedule Public stakeholder meeting to discuss feedback
- May 2022
 - Address feedback and finalize study plan



Thank You



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