Real Time Data and Forecasting Project
Water Quality Weekly Report
Office of Water Quality
Department of Water Resources

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Important Information for this Week

The volumetric, EC and DOC fingerprints in Section 4 have been updated.

Suspect data omitted: EC at Patterson since 10/6/05

Organic carbon data for Hood are unavailable due to a pump failure which should be fixed this week.

CDWA-12

2. Comments, Observations and Interpretation (EC, TOC/DOC, Flow):

EC in the Sacramento River at Hood has declined further since the last report with mean daily values of 126 µS/cm for October 9th and 10th. We expect that there should be little further decline until the rainy season.

EC in the San Joaquin River near Vernalis which had been declining since early September appears to have bottomed out with a mean daily of 379 µS/cm on 9/25/2005. Flow on that date was 2611 cfs. EC on October 10th was 557 µS/cm with a flow of 2151 cfs.

Mean daily EC at the H. O. Banks Pumping Plant has been less than 400 µS/cm since 9/25/2005. It was 346 µS/cm on the 10th of October. Combined pumping by DWR and USBR is currently at 11,080 cfs.

No carbon data have been transmitted to CDEC from the Sacramento River at Hood after 10/04/2005 due to a pump failure. Mean daily TOC by combustion was 1.82 mg/L on that date.

Mean daily TOC by combustion at the H. O. Banks Pumping Plant was 2.48, 3.46, 2.86 and 2.49 mg/L respectively from 10/07 through 10/10/2005; however, there was very little variation in DOC by combustion during that period. Wind at Clifton Court often causes resuspension of particulate matter and thus an increase in turbidity and TOC but not DOC. The average wind speed at Tracy was 9.2 miles per hour on the 8th with speed greater than ten mph for twelve hours.

3. General Information

This weekly water quality report is produced by the Department of Water Resources, Office of Water Quality. Any questions, comments or suggestions are welcome. Please contact Rob DuVall by E-mail at: rduvall@water.ca.gov or by phone at: (916) 651-9680. Each weekly issue is sent out electronically as an E-mail attachment in Adobe Acrobat format. The corresponding data are also sent out electronically as an attached EXCEL XP file. This report is part of the Real Time Data and Forecasting (RTDF) project. The goal is to bring real time, near real time, and forecasted water quality data to source water managers, treatment plant operators, scientists, and other stakeholders.

If you find the information useful, feel free to share it with others. If you wish not to receive this report in the future, please contact Rob DuVall and you will be remove from the address list. Conversely, anyone interested in receiving this report can send a request to be added to the list.

This weekly report is a work in progress. The RTDF Steering Committee has provided guidance and the report will continue to evolve and provide more useful information.

Calculated Delta Inflow (Section 11) is the sum of CDEC flow data from the following stations:

Sacramento River at Freeport
San Joaquin River near Vernalis
Yolo Bypass near Woodland
Cosumnes River at Michigan Bar
Mormon Slough at Bellota (Calaveras River)
Camanche Reservoir (Mokelumne River)

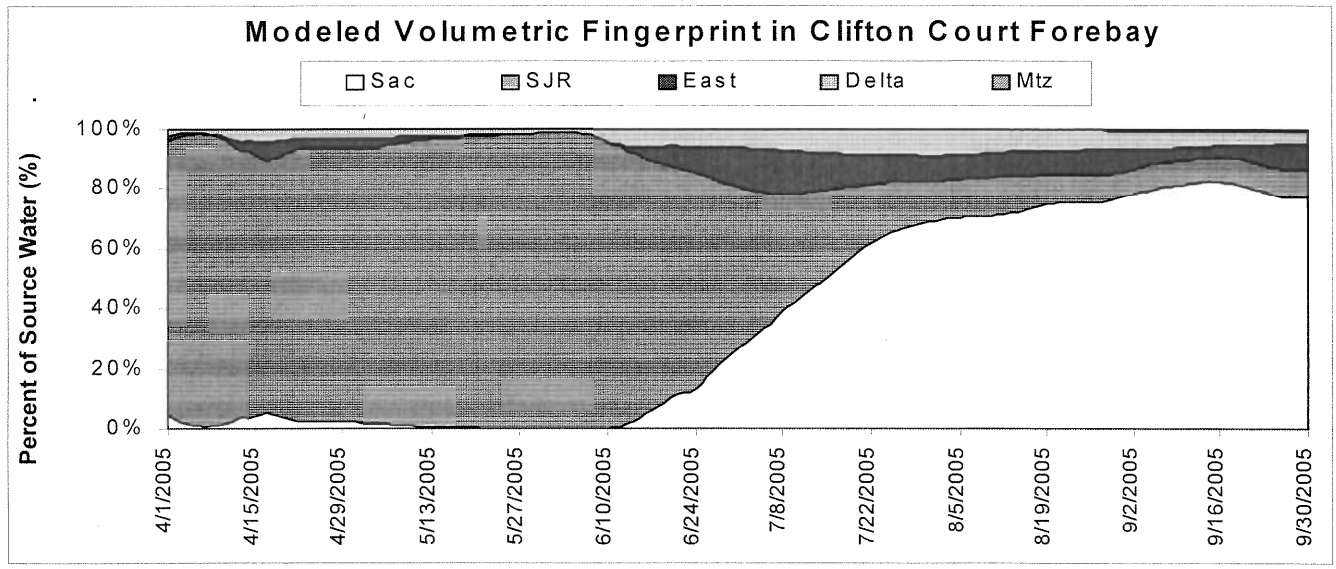
Useful links:

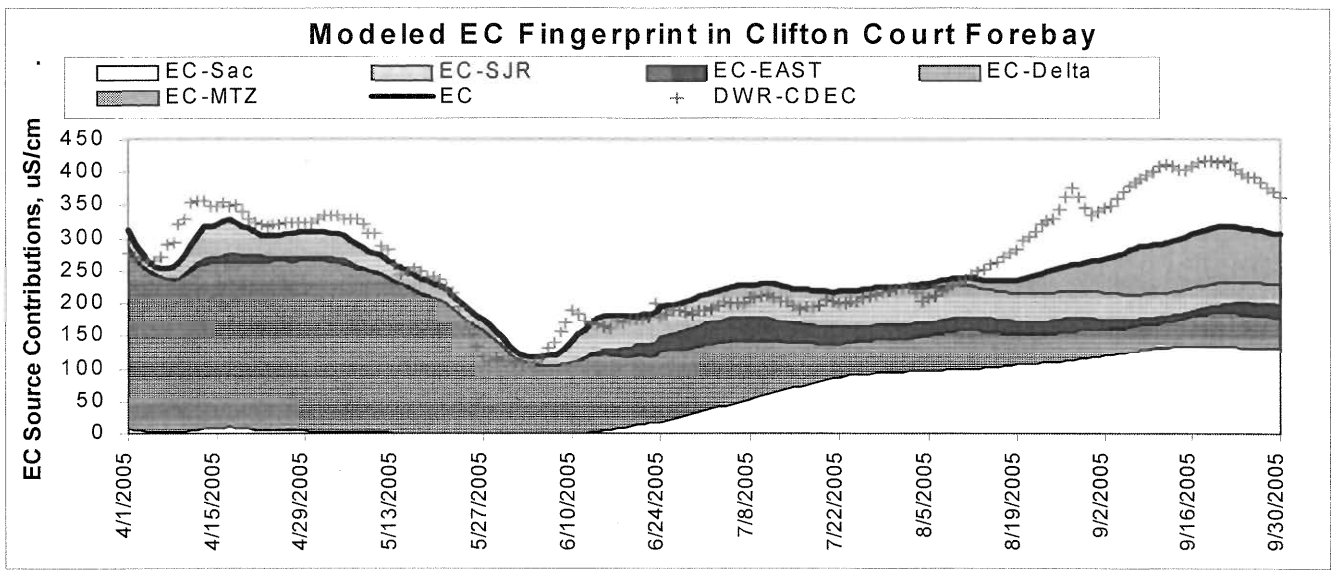
Station Meta Data, Maps and Related Data at	http://cdec.water.ca.gov/staMeta.html
CDEC Plotter at	http://cdec.water.ca.gov/cgi-progs/histPlot
Other Historical Water Quality Data at	http://wdl2.water.ca.gov/mwqi/
IEP Maps of Delta Monitoring Stations	http://www.iep.ca.gov/dss/all/

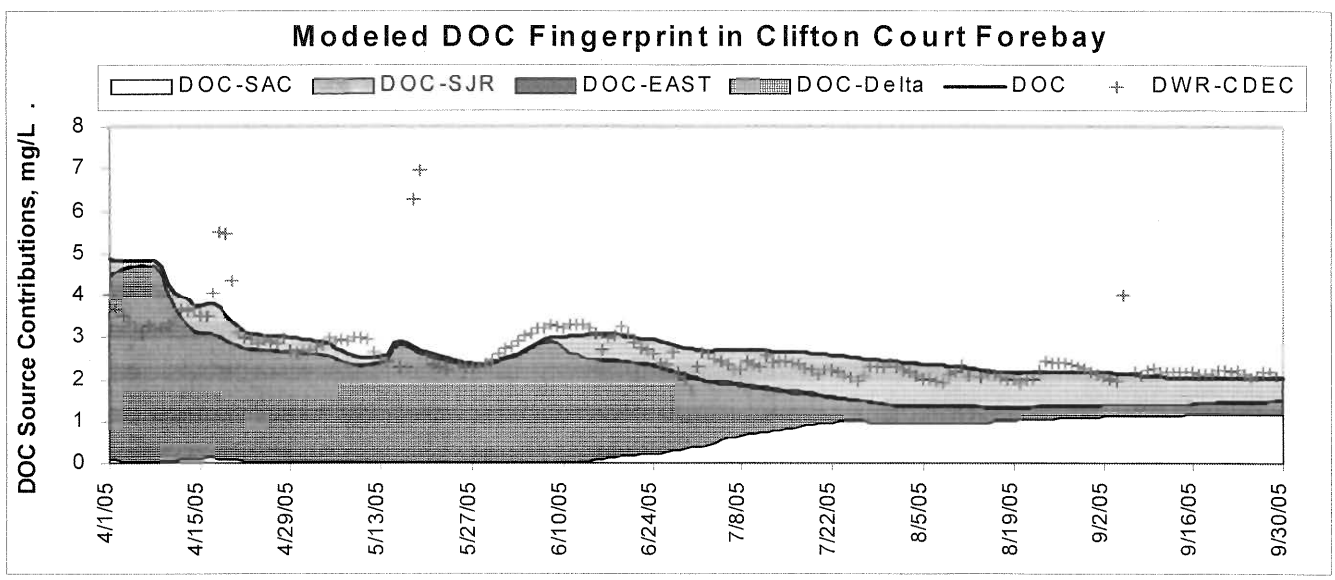
This report contains preliminary data and is subject to revision.

All figures except the EC forecasts and San Luis Storage represent mean daily data.

4. Volumetric and Constituent Fingerprints

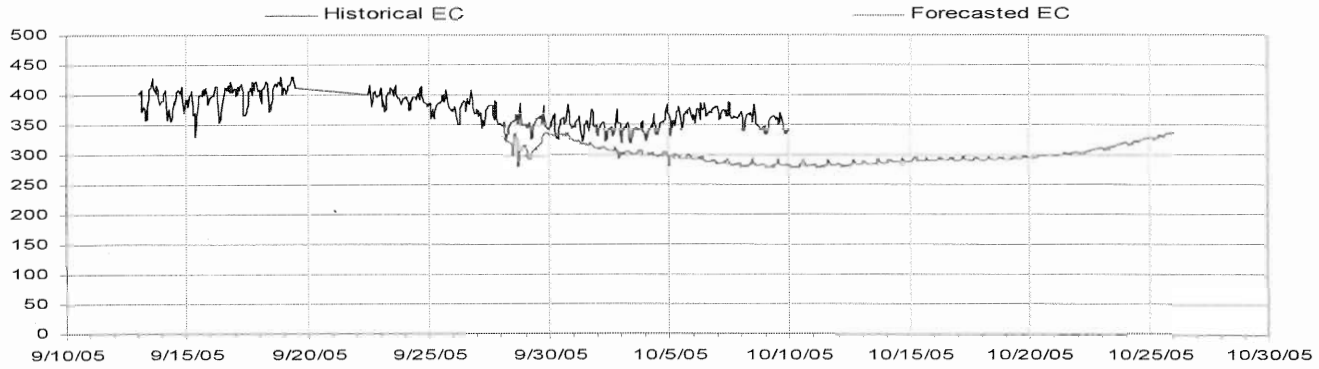




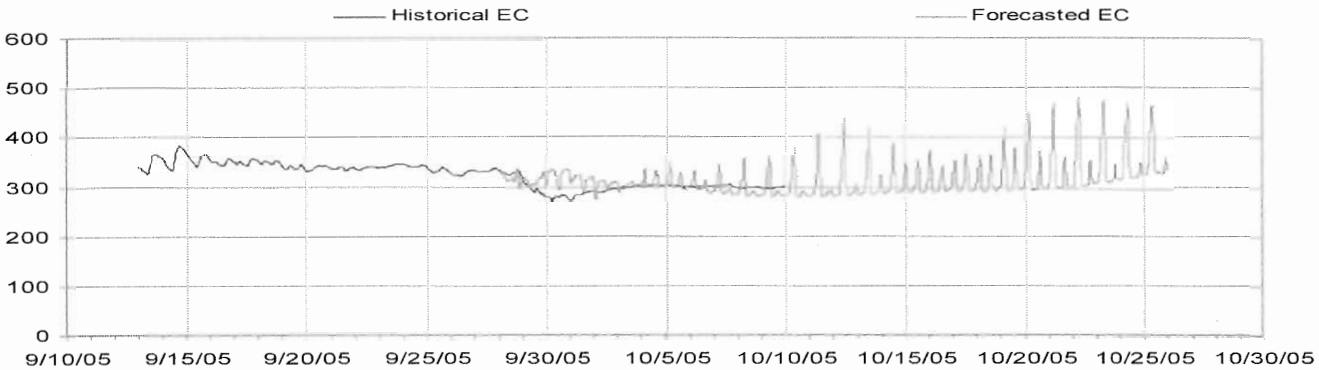


5. Forecasted EC—Export Locations

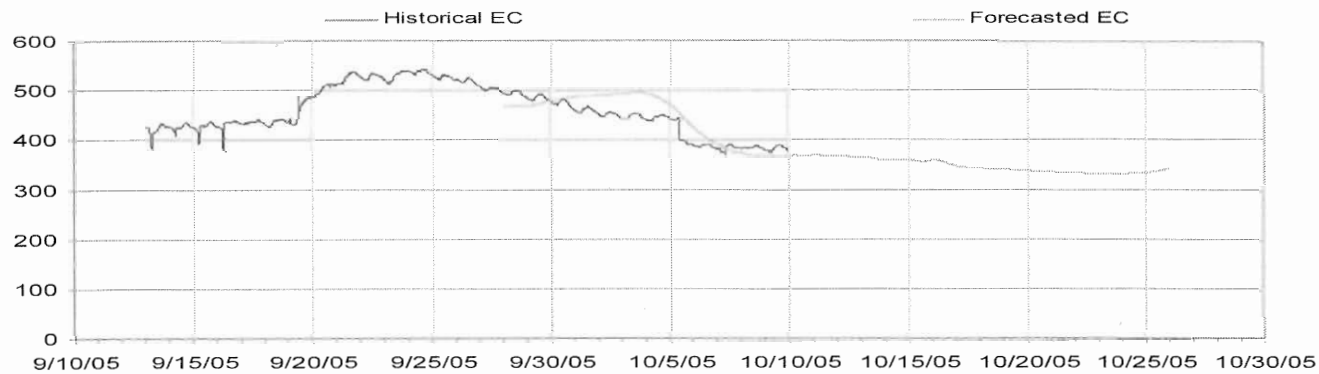
Old River at Clifton Court Gates (µS/cm)



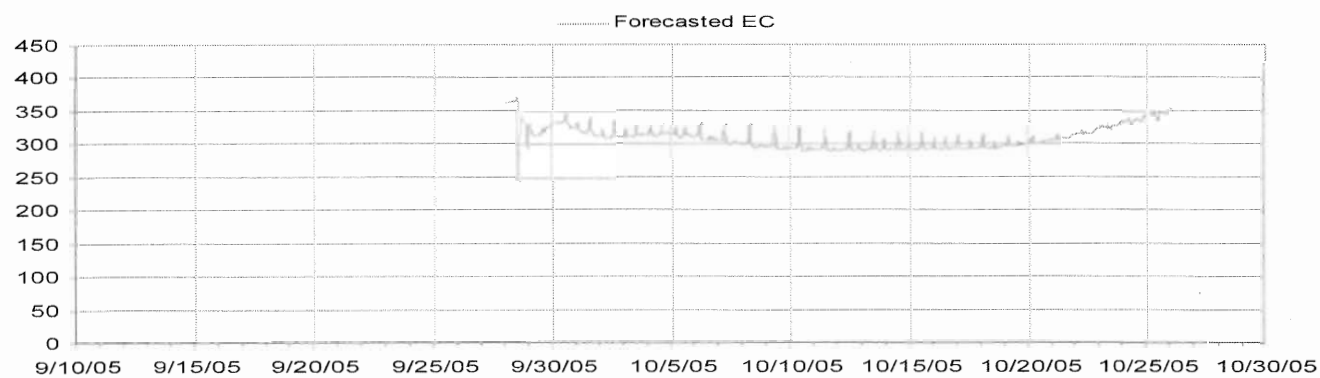
Delta Mendota Canal/Tracy P.P. (µS/cm)



Rock Slough (µS/cm)

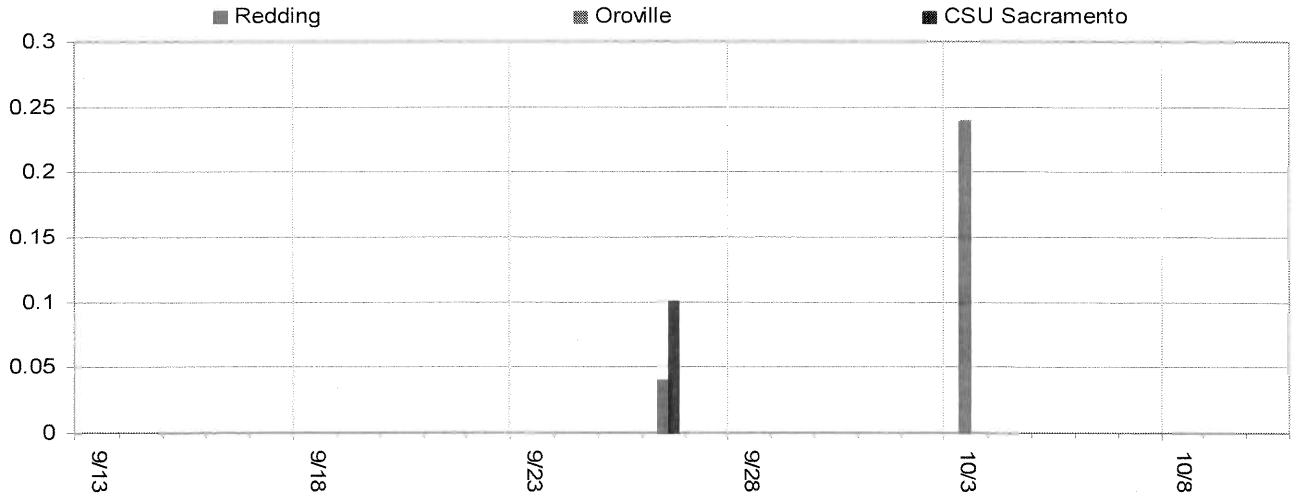


Old River at Los Vaqueros Reservoir Intake (µS/cm)

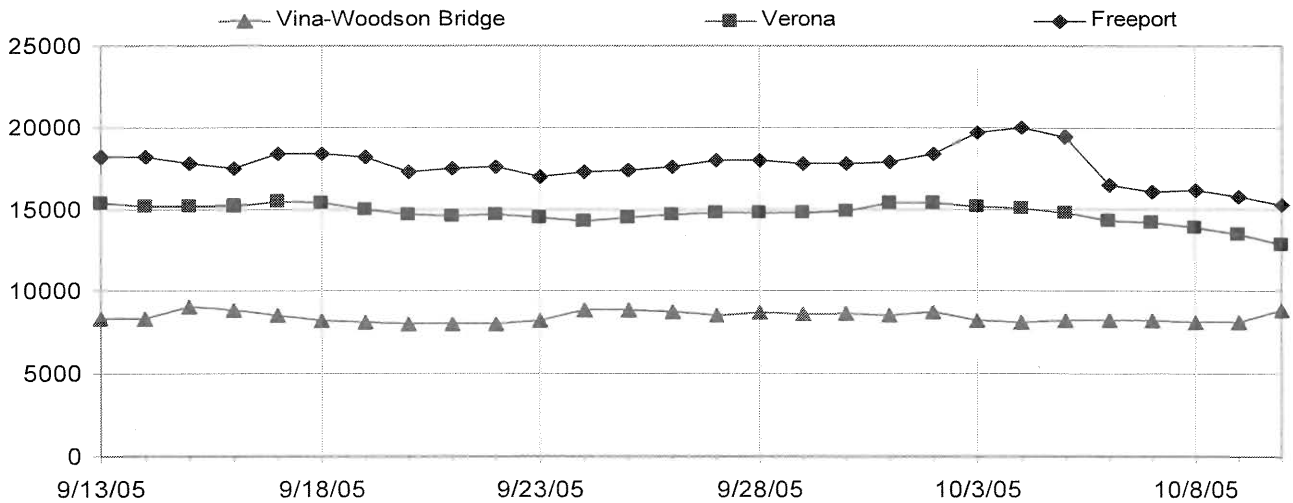


6. Precipitation, Flow & Electrical Conductivity—Sacramento River

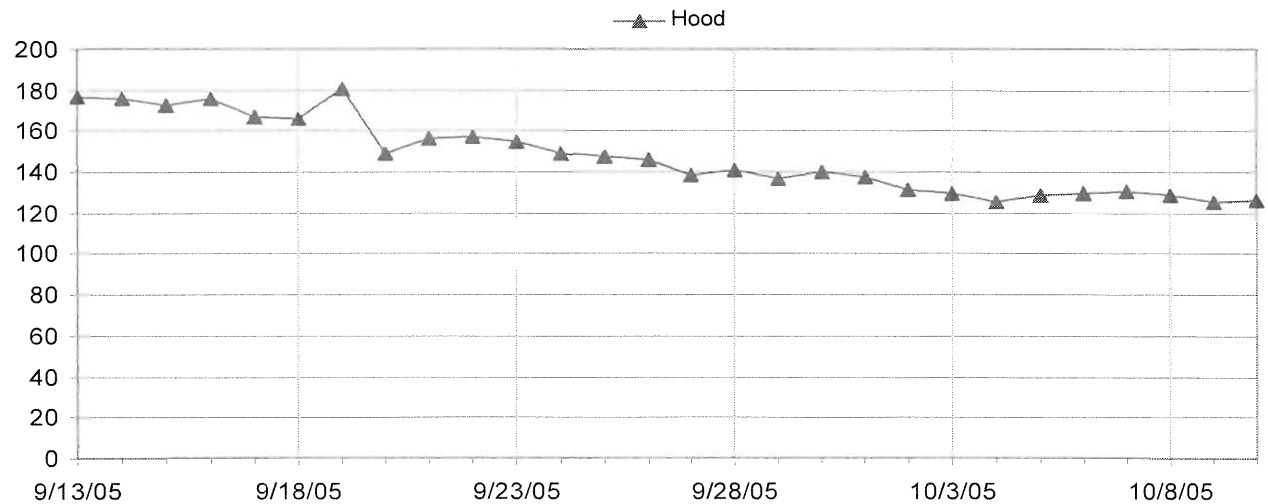
Sacramento River Watershed Precipitation (inches)



Sacramento River Flows (cfs)

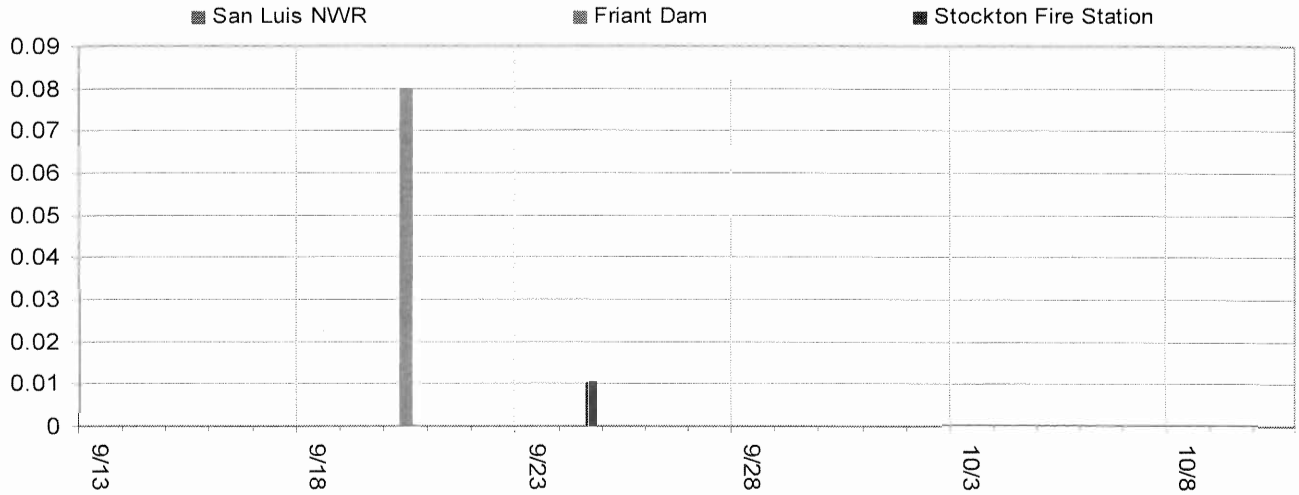


Sacramento River Electrical Conductivity (µS/cm)

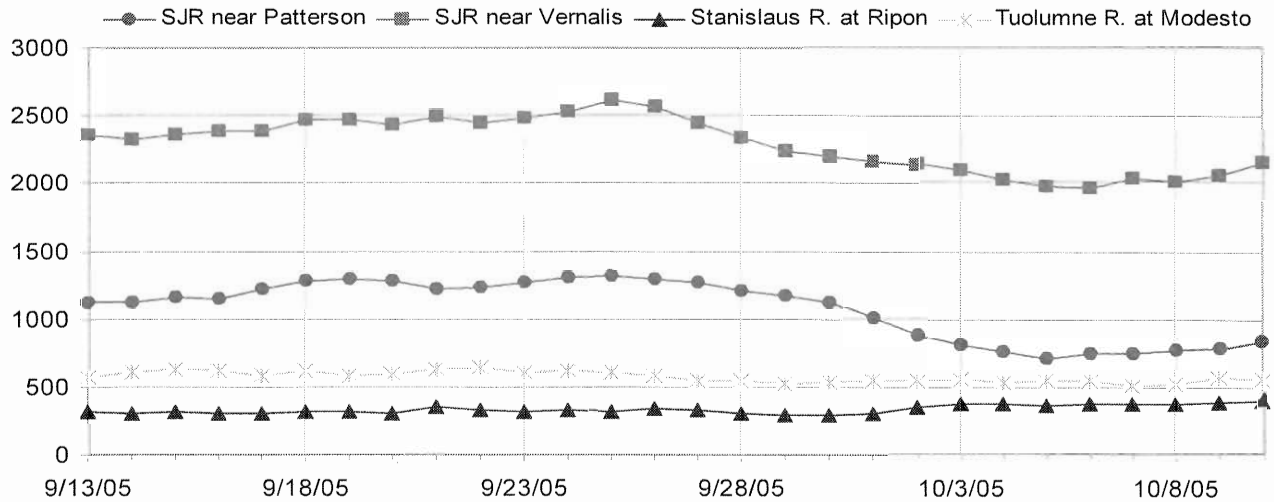


7. Precipitation, Flow & Electrical Conductivity—San Joaquin River

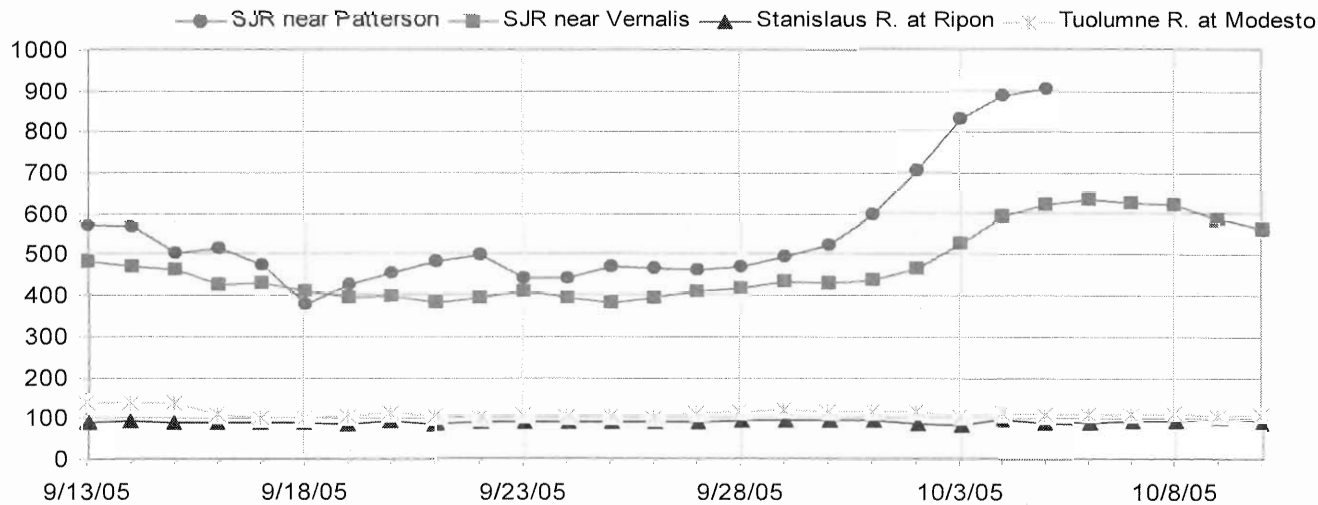
San Joaquin River Watershed Precipitation (inches)



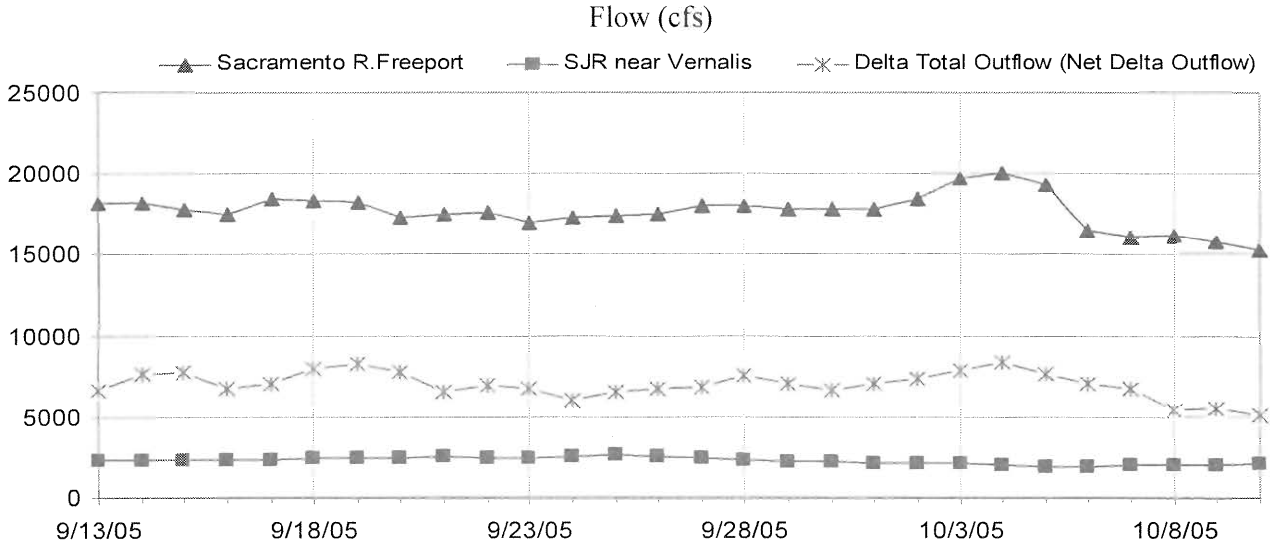
San Joaquin River Flows (cfs)

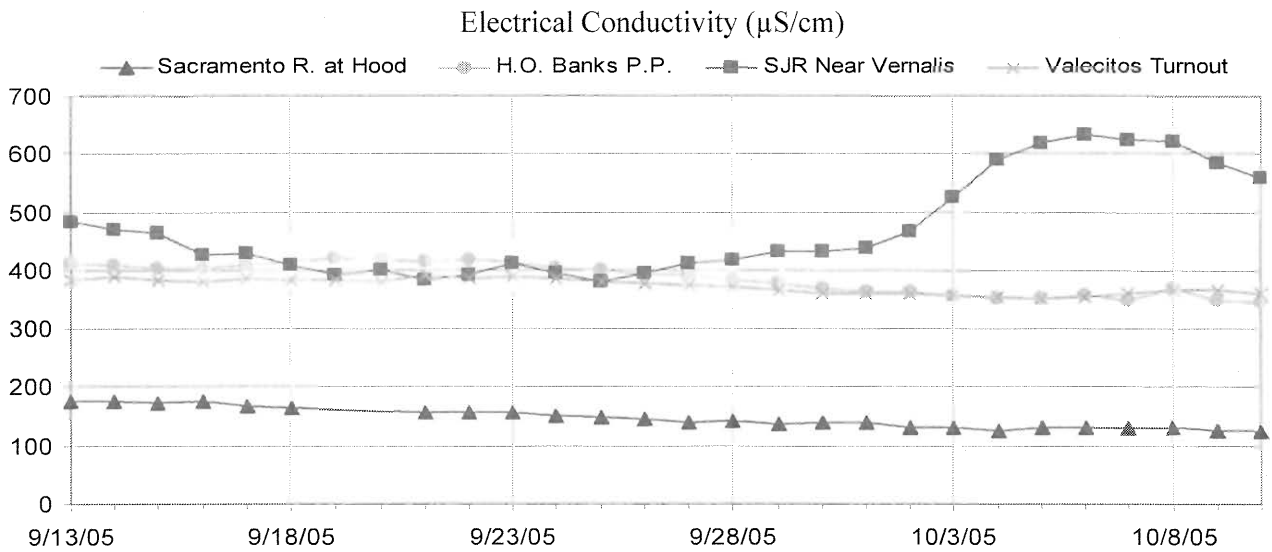


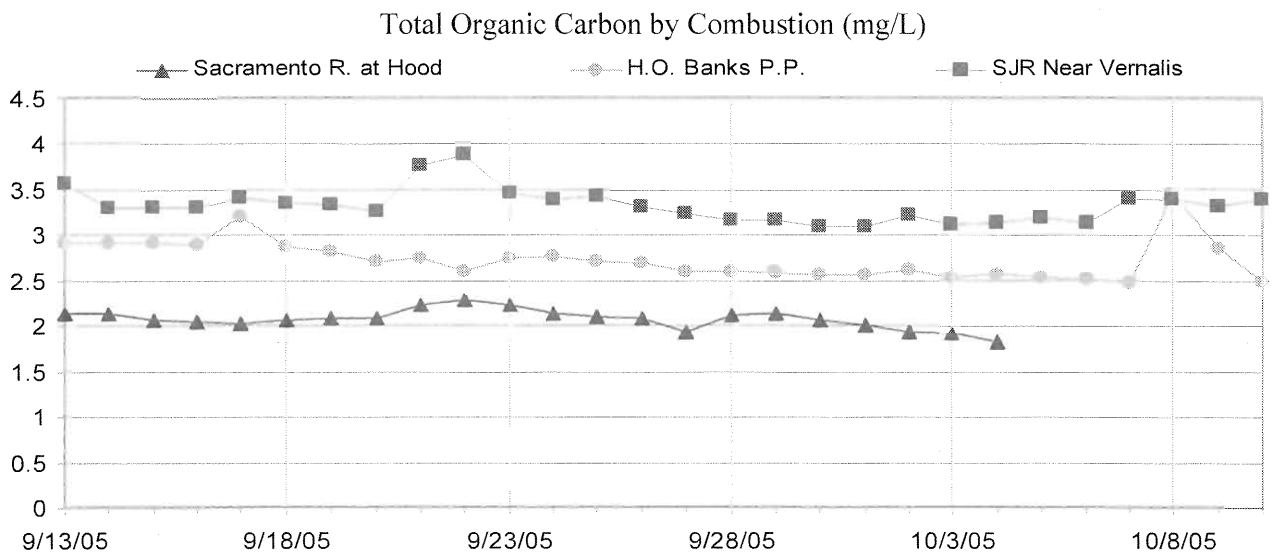
San Joaquin River Electrical Conductivity (µS/cm)



8. Flow, EC & TOC—Sacramento-San Joaquin Delta

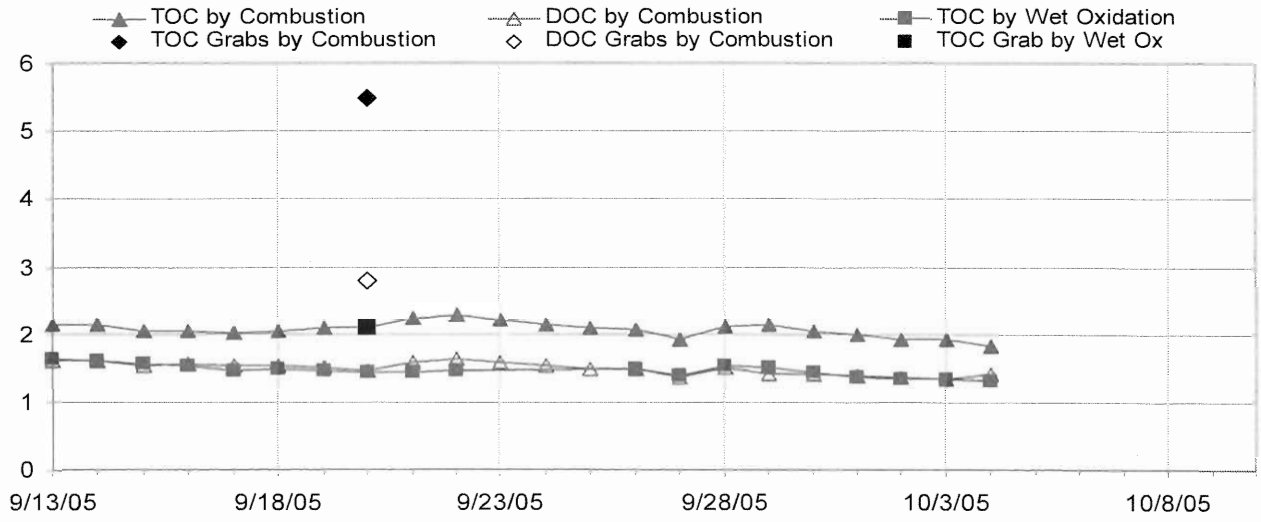




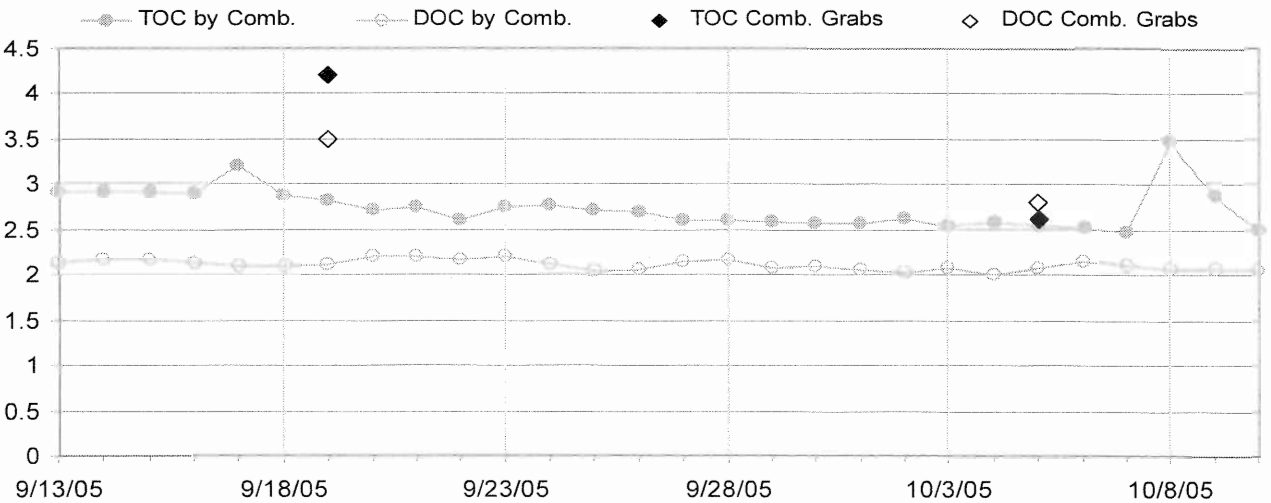


9.Total and Dissolved Organic Carbon

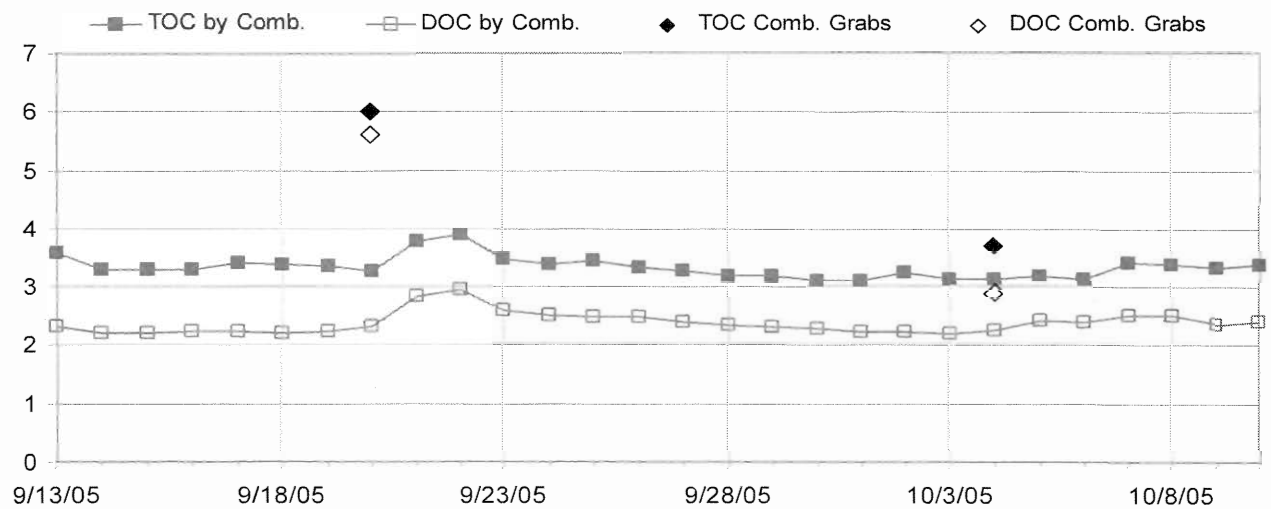
Sacramento River at Hood (mg/L)



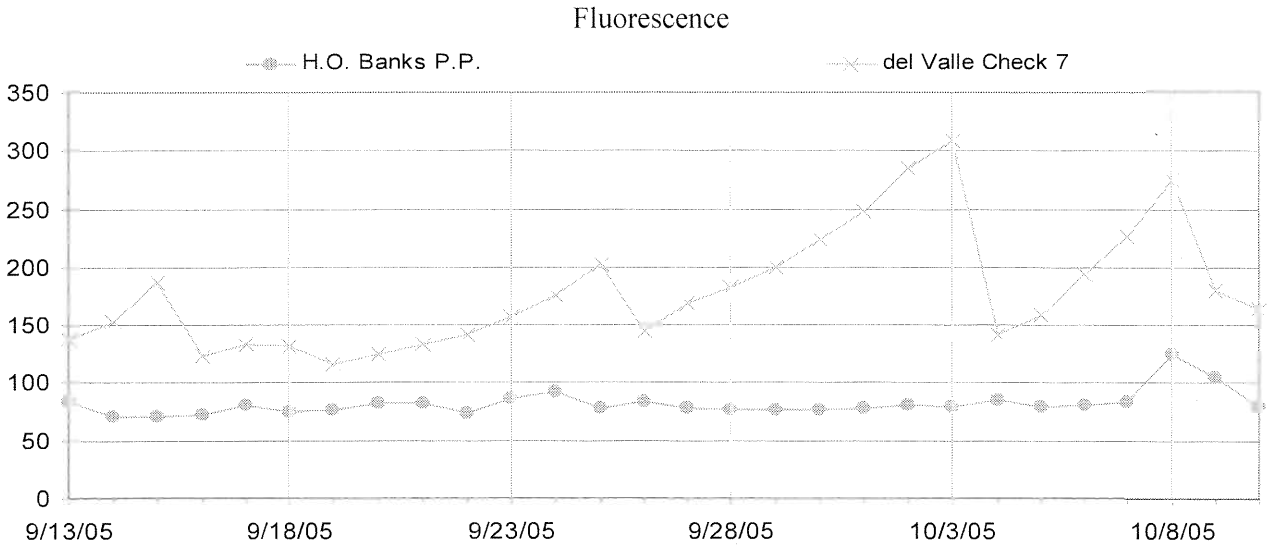
H.O. Banks Pumping Plant (mg/L)

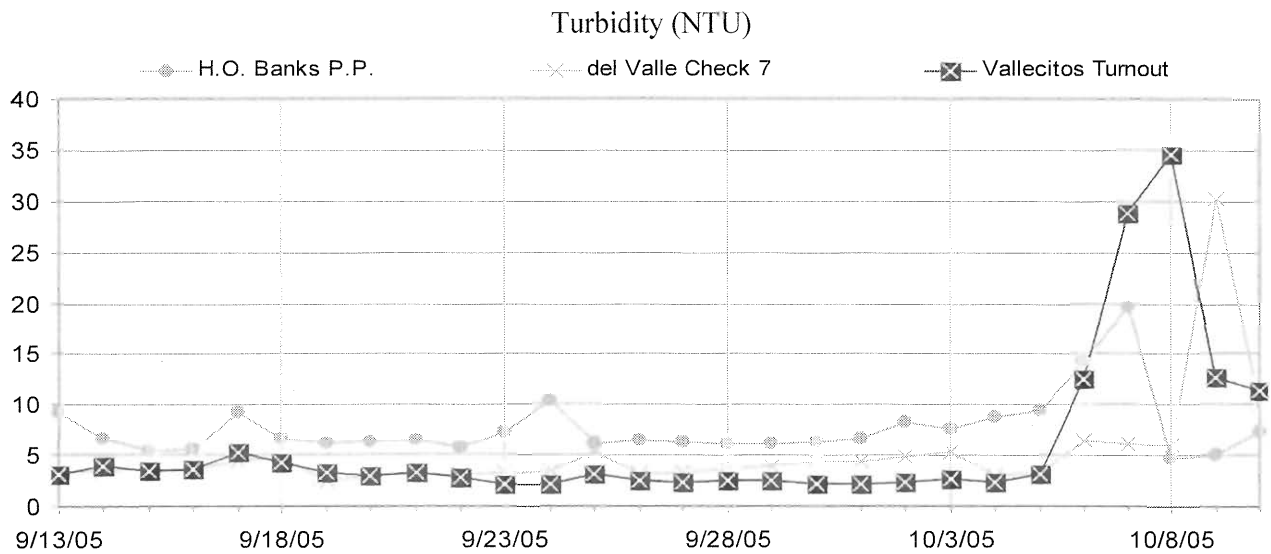


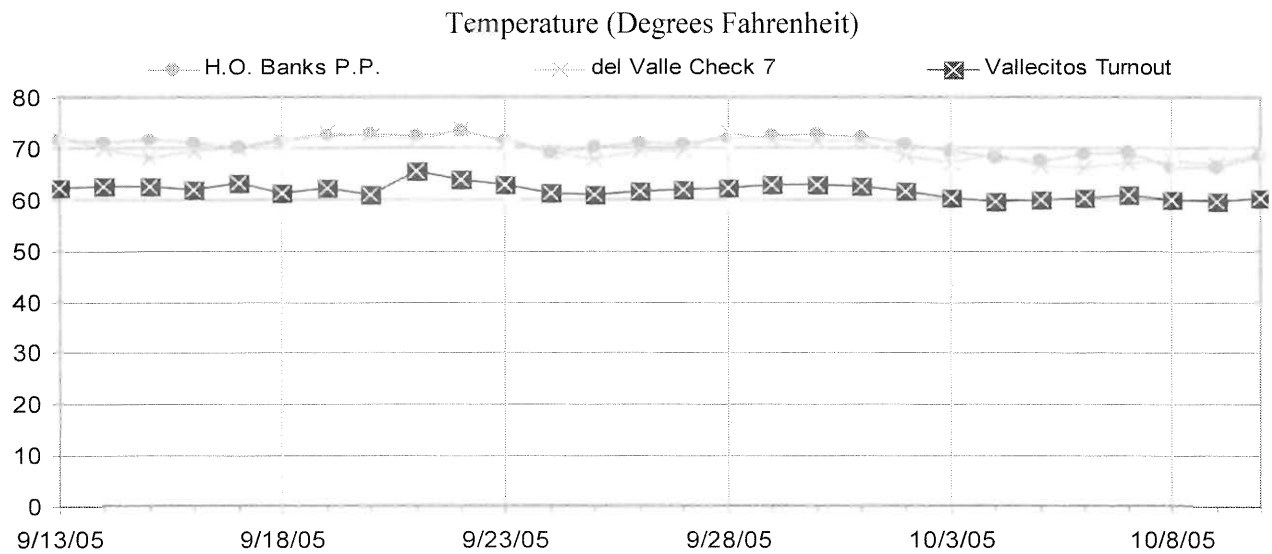
San Joaquin River Near Vernalis



10. Fluorescence, Turbidity and Temperature—SBA

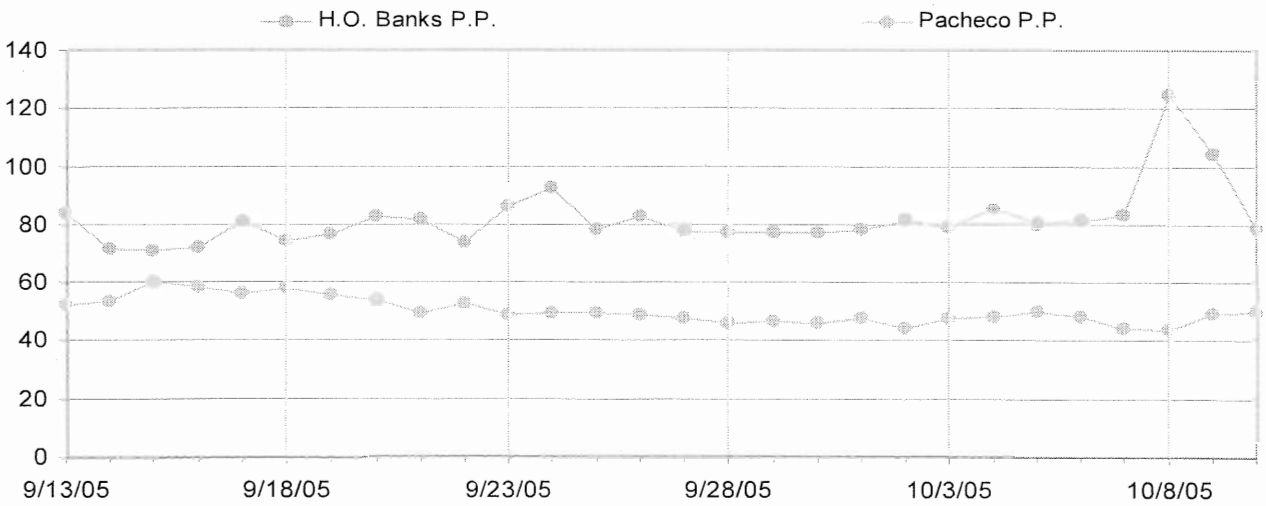




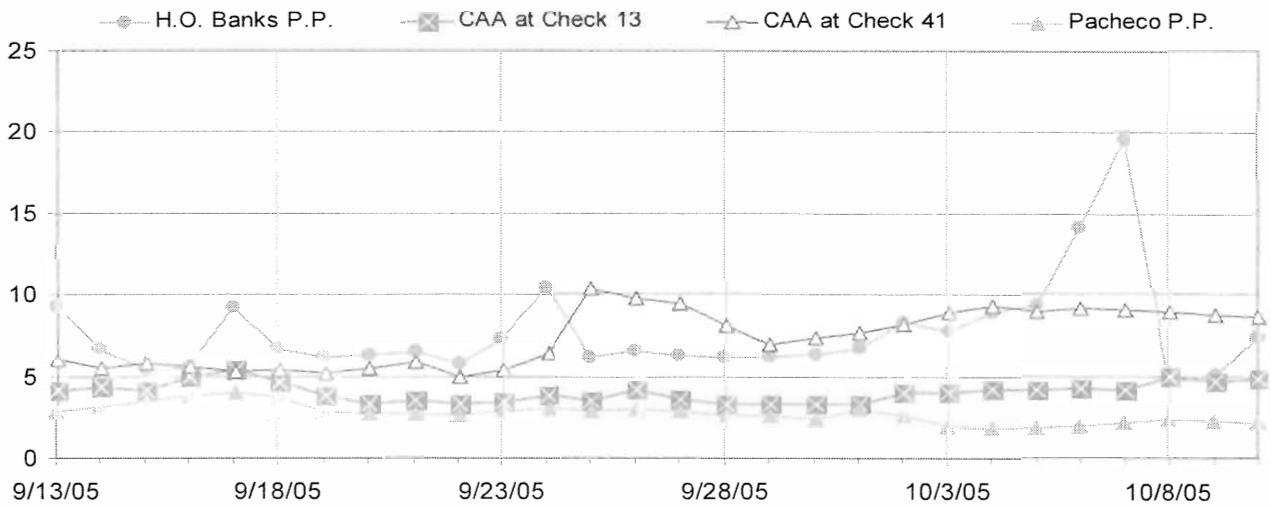


11. Fluorescence, Turbidity and UVA—CAA

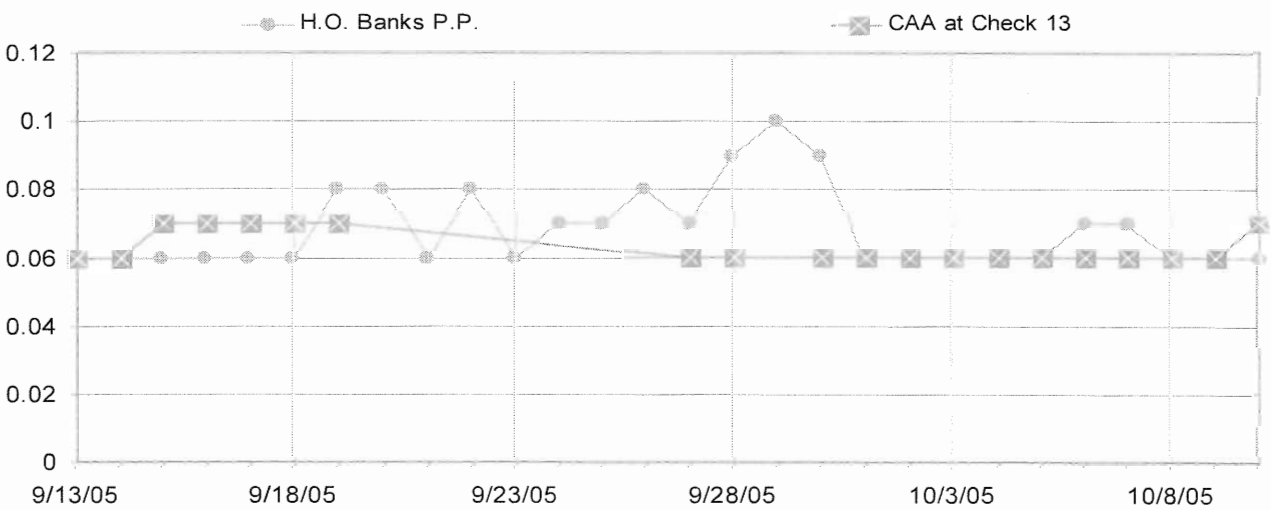
Fluorescence



Turbidity (NTU)

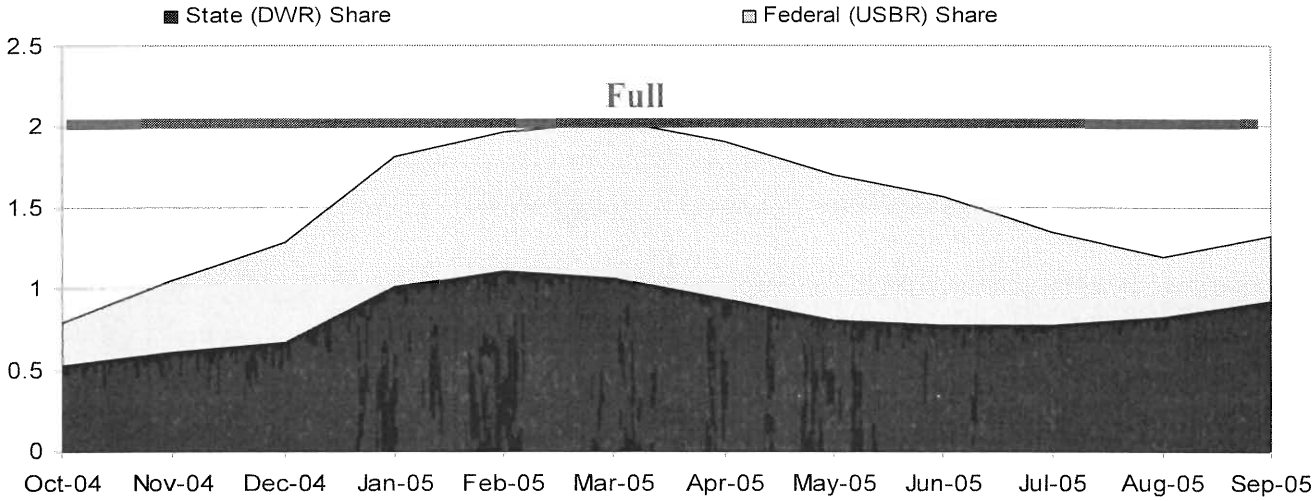


UVA (cm^{-1})

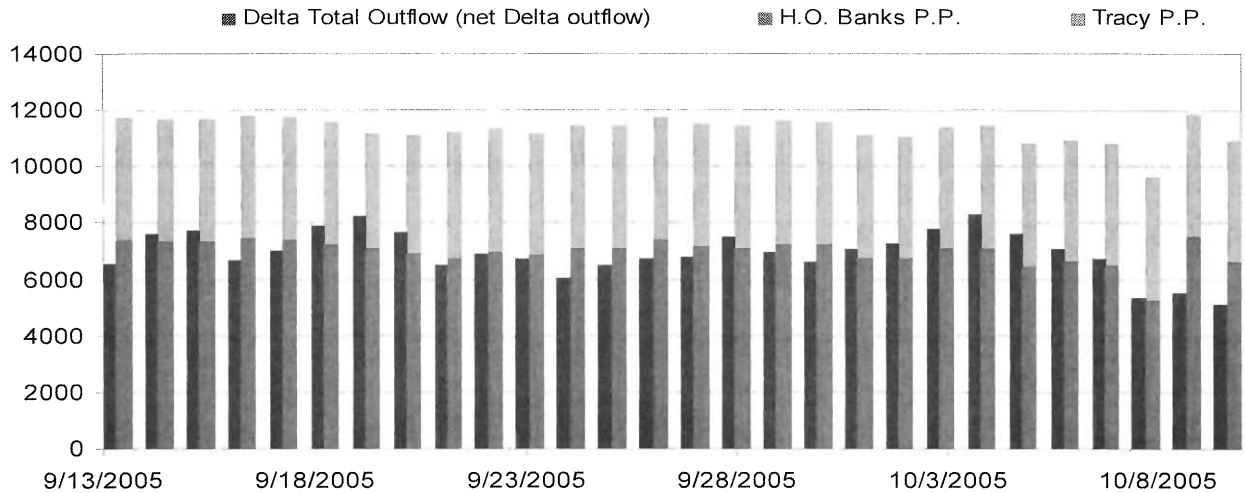


12. San Luis Reservoir Storage & Delta Pumping, Inflow & Outflow

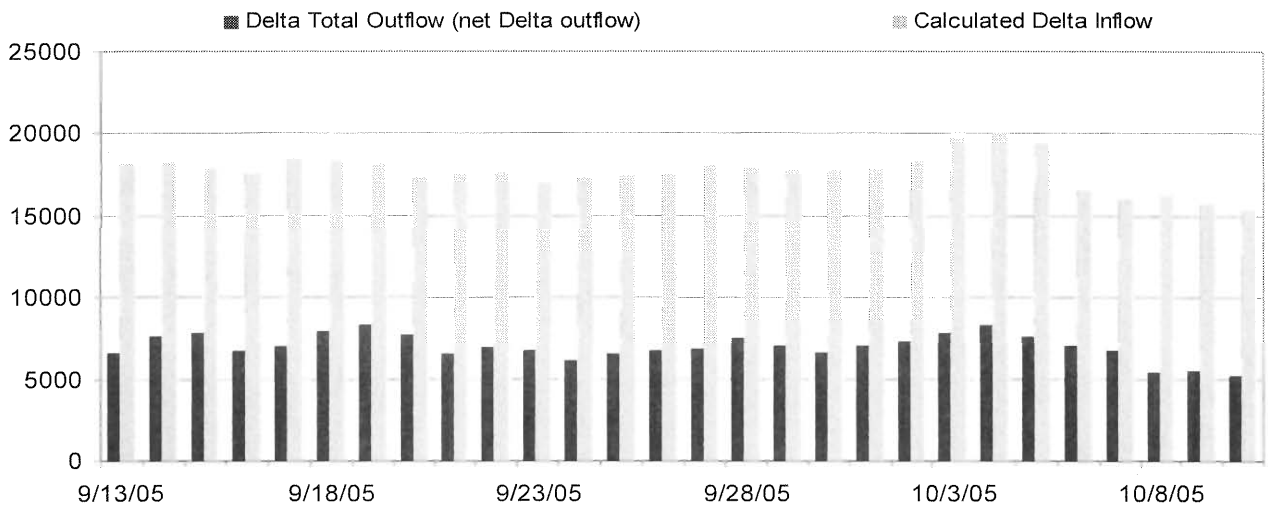
San Luis Reservoir Storage Shares (in millions of acre feet)



H.O Banks and Tracy Pumping plus Delta Total Outflow (cfs)



Calculated Delta Inflow and Delta Total Outflow (cfs)



13. Delta Operations

PRELIMINARY DATA
SUBJECT TO REVISION WITHOUT NOTICE

EXECUTIVE OPERATIONS SUMMARY
October 11, 2005
SCHEDULED EXPORTS FOR TODAY

Clifton Court Inflow = 6680 cfs
Tracy Pumping Plant = 4400 cfs

ESTIMATED DELTA HYDROLOGY

Total Delta Inflow ~ 17,900 cfs
Sac River = 15,184 cfs
San Joaquin River = 2,151 cfs

DELTA OPERATIONS

Delta Conditions = Excess Condition.
Delta Cross-channel Gates: Open.
Outflow Index ~ 4,800 cfs
% Inflow Diverted ~ 54.9 (using 14-day avg).
X2 Position >81.0 km

Operational Comments:

RESERVOIR STORAGE (AS OF MIDNIGHT)
Shasta Reservoir = 2,959 TAF
Folsom Reservoir = 628 TAF
Oroville Reservoir = 2,829 TAF
San Luis Res. Total = 1,363 TAF
SWP Share = 945 TAF

DELTA SMELT
Daily Expanded Salvage = 0
October Total Salvage = 0

DSRAM juvenile concern level = N/A
DSRAM adult concern level = 892
Re-consultation level for October = 100

Reservoir Releases

Keswick = 9,000 cfs
Nimbus = 2,500 cfs
Oroville = 3,500 cfs

14. Acknowledgments

Data and information for this report has been provided by:

California Department of Water Resources

Division of Environmental Services
Office of Water Quality

Division of Flood Management
California Data Exchange Center

Division of Operation and Maintenance
Environmental Assessment Branch
Operations Control Office
Field Divisions

Division of Planning and Local Assistance
California Irrigation Management Information System
Northern District
San Joaquin District

Bay-Delta Office

United States Department of the Interior

Bureau Of Reclamation

U.S. Geological Survey

National Oceanic and Atmospheric Administration

National Weather Service