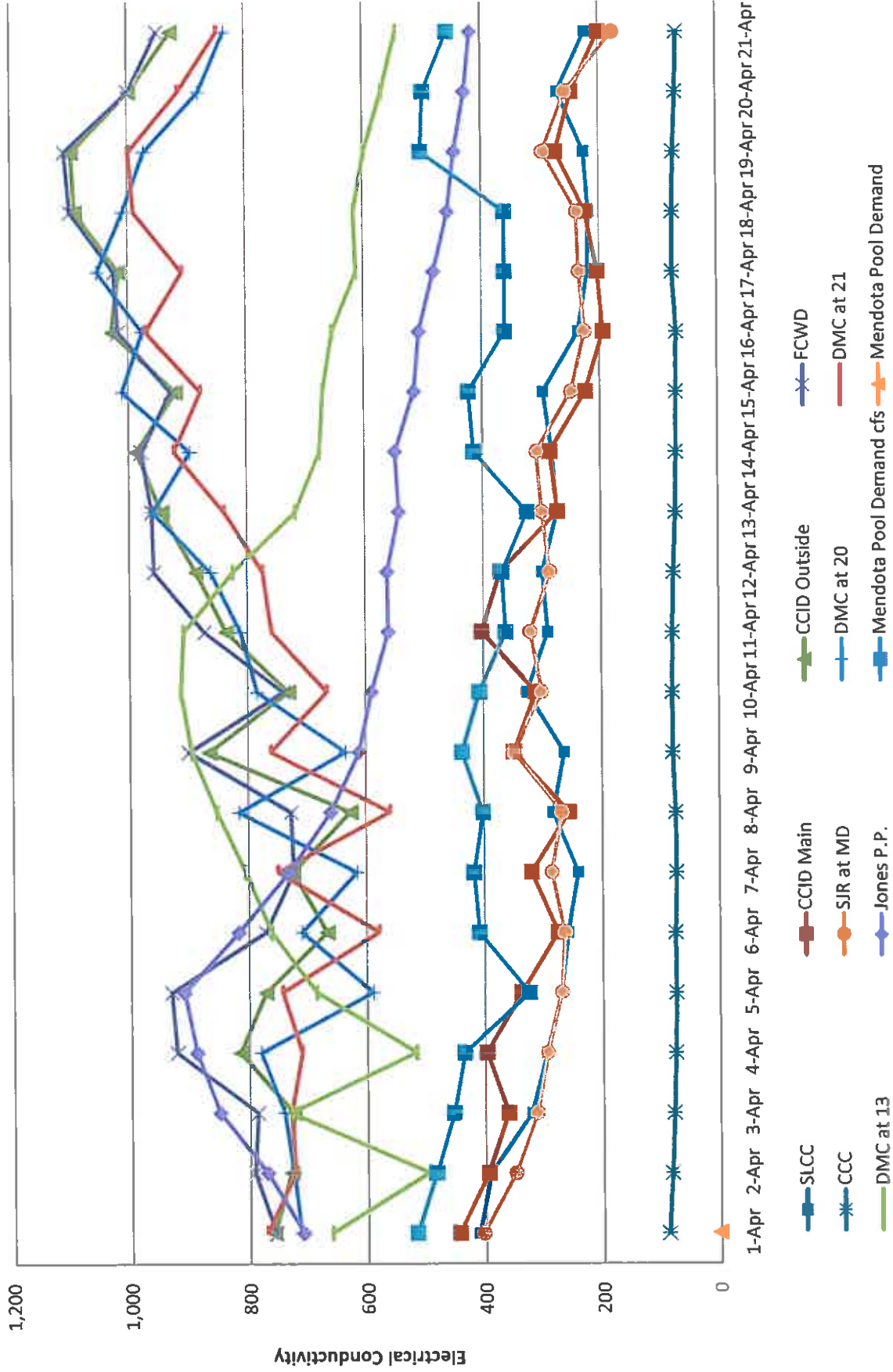


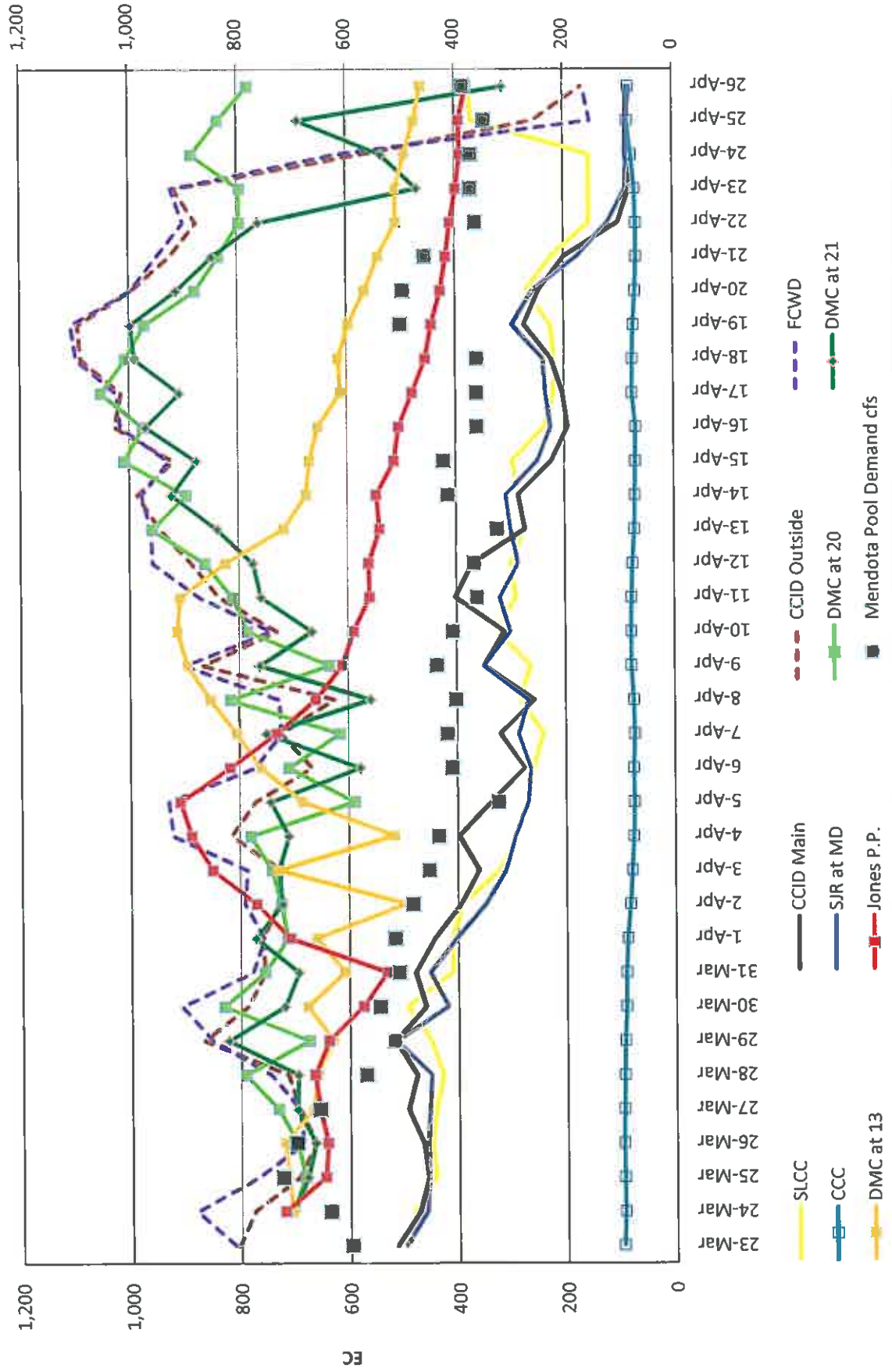
San Joaquin River Exchange Contractors Water Authority  
**Average Daily Electrical Conductivity Readings**  
 Jones Pumping Plant through the Mendota Pool



San Joaquin River Exchange Contractors Water Authority

# Average Daily Electrical Conductivity Readings

Jones Pumping Plant through the Mendota Pool



## **Water Quality Impacts Due to Restoration Flows into the Mendota Pool**

The DMC and Mendota Pool experienced water quality degradation as a result of reduced deliveries (flow) from the DMC to the Mendota Pool in April, 2010 to accommodate Restoration Flow releases into the Mendota Pool. Normally, all demands in the Pool are met through deliveries from the DMC. In order to accommodate the quantity of SJRRP flows into the Mendota Pool that exceeded the required SJRRP release pass the Mendota Dam, the surplus Restoration flow must be utilized to meet the DMC demands and therefore deliveries from the DMC must be reduced.

During this operation in April, 2010, the lower flows in the lower DMC caused the water quality in the canal to degrade. Without fresh water to blend with the tile drainage discharges into the lower DMC, the EC of DMC water quality reached close to 1000 EC. (See attached graph to see water quality impact at delivery locations) Degraded water quality results in the following impacts:

1. High EC water quality water being delivered to water users taking direct deliveries from the lower DMC and Mendota Pool.
2. DMC Pumpers were precluded from pumping into the DMC for credit to supplement their water supply. There is a water quality trigger of 700 EC. When this trigger is exceeded, no pumping is allowed.
3. Mendota Pool Pumpers were shut off due to water quality triggers being exceeded.

## Elements Required in a Recapture and Recirculation Plan

### Goal:

Identify actions steps to carry out the SJRRP in a manner which ensures there are no third party impacts.

1. Installation of continuous real-time monitoring sites for river stage and flow conditions at:
  - Below Friant Dam (river mile 267)
  - At Gravelly Ford (river mile 228)
  - Below Chowchilla Bifurcation Structure (river mile 216)
  - At San Mateo (river mile )
  - Below Mendota Dam (river mile )
  - Below Sack Dam (river mile )
  - At the head of Reach 4B (river mile 168)
  - Upstream of Merced River confluence (river mile 118); and
  - At the head of Sand Slough Bypass (river mile 182)
2. Establish accounting mechanism to determine quantity of water available for recapture/recirculation/transfer which ensures there are no third party impacts.
3. Establish model to evaluate annually the with and without Project operations to determine impacts to third parties.
  - Flood flow requirements
  - New Melones operations
4. Establish a methodology to mitigate for any impacts.
5. Establish the priority for use of Jones and Banks Pumping, San Luis Reservoir for recapture/recirculation of Restoration Flow and channel capacity to Mendota Pool during flood flow releases.
6. Establish responsibility for payment of costs associate with recapture and recirculation.