Upstream DO TMDL Study

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Participating Agencies

- San Joaquin Valley Drainage Authority
- San Joaquin River Group Authority
- Berkeley National Laboratory
- University of the Pacific
- US Geological Survey
- University of California, Davis
- Summers Engineering
- Systech Engineering
- Jones & Stokes
- California Department of Water Resources
- California Water Institute

Objectives

- Conduct a mass balance on algae and nutrients in the San Joaquin River
  - Data collection & modeling
- Establish a comprehensive algae and nutrient monitoring program
- Provide a scientific basis for DO TMDL implementation & allocation process
  - Increase stakeholder confidence

Project Organization

- Task 1: Administration
- Task 2: Environmental Compliance
- Task 3: QAPP
- Task 4: Monitoring Study
- Task 5: Upgrade Monitoring Stations
- Task 6: Modeling Study
- Task 7: BOD Isotope Study

Project Organization

- Task 8: Linking Study
- Task 9: Grazing Study
- Task 10: Installation of New SJR Station
- Task 11: Local Access Database
- Task 12: Draft Final & Final Report
- Task 13: Project Closure

Key Scientific Components

- Increased reliance on continuous monitoring to close data gaps
- Development of improved flow monitoring network
- Integration of stable isotope techniques with water quality monitoring program
- Intensive surveys of poorly understood regions

Key Scientific Components

- Integration of water quality models with existing DWR hydraulic models
- Utilization of stable isotope geochemistry to identify sources of BOD & nutrients
- Study the impact of grazing pressure on algal biomass production
- Transfer of technical knowledge & expertise to stakeholders

First Step

- Develop Quality Assurance Project Plan
  - Due October 15, 2004
  - Needs to include all laboratory and field methods
  - Must be reviewed and accepted by CBDA