## *EPA Region 9 priorities in the Delta*

**Coordinated water quality monitoring and assessment**

There is widespread recognition for the need to improve monitoring and assessment to help guide decision making. The usefulness of current monitoring can be improved through closer coordination and improvements to data management. Additional monitoring is necessary to fill data gaps, including those identified through the Pelagic Organism Decline (POD) studies.

Several parties are currently developing strategies to enhance water quality monitoring in the Central Valley, geographically focused on the Sacramento, the Delta and the San Joaquin. EPA has led the effort in the San Joaquin Basin and cooperated on the Sacramento and Delta efforts. Developing a long-term ongoing funding mechanism to support a wide range of monitoring, assessment and research is a hurdle in successfully establishing these regional monitoring programs, though there are models elsewhere in California for how this can be done. EPA will assist in the implementation of these strategies by providing technical assistance and start-up funding.

Priority activities include:

- Establish a San Joaquin regional monitoring program with local stakeholder oversight.
- Ensure a linkage to companion efforts in the Delta and Sacramento River.
- Convene a San Joaquin water quality conference to help focus monitoring activities on common management objectives.
- Identify data gaps and ways to fill those gaps.
- Develop water quality performance measures, building on those developed by the CalFed Bay Delta Program as well as EPA's Office of Water Strategic Plan.
- Produce a State of the San Joaquin Water Quality Assessment Report.
- Further develop data management infrastructure, building on the work of State Water Ambient Monitoring Program and the Interagency Ecological Program.
- Ensure data is adequate to: determine whether impaired waters are being restored; assess BDCP conveyance alternatives; and monitor the water quality impacts of San Joaquin River restoration.

**Water quality restoration for all beneficial uses**

Much of California's drinking water and agricultural water supply comes through the Delta. Fish that inhabit or migrate through the Delta also are impacted by its water quality. EPA supports the State in implementing the Clean Water Act and Safe Drinking Water Act, especially permitting, TMDLs and water quality standards. These core water quality programs need to be enhanced. EPA will ensure state of the science water quality standards are in place to drive water quality restoration.

Priority activities include:

- Convene a facilitated science process to assess the effectiveness of current water quality standards and develop revisions as deemed necessary, in partnership with

the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board.

- Ensure that water quality standards and TMDLs complement relevant Biological Opinions and further the goals of the San Joaquin River Restoration Program.
- Support the State in the development of the Central Valley Drinking Water Policy, which is a unique attempt to integrate the Safe Drinking Water Act's source water protection approach with the Clean Water Act's surface water quality standards program towards the goal of protecting and improving Delta drinking water quality.
- Provide additional support to the Water Board and local stakeholders to develop TMDLs, as well as comprehensive watershed plans to successfully implement those TMDLs.
- Follow-up on water quality-related findings from the POD studies and/or the CalFed Science program to ensure appropriate remedies are implemented (i.e., ammonia, mycrocystis).

**Science**

There has been extensive study over the last several years to determine the causes of the Pelagic Organism Decline. Through this work, several water quality issues have been identified but not yet fully pursued. In addition, there has not been enough scientific study to prepare for the challenges that are anticipated in the Delta ecosystem, specifically climate change impacts and future invasive species.

Priority activities include:

- Assess the role of nutrients (and interaction with managed flows) in promoting blue-green algal blooms and other noxious invasive species.
- Assess the role of agricultural chemicals and nuisance weed management chemicals in promoting blue-green algal blooms.
- Assess indirect toxicity effects of blue-green algae through food chain on sport fish as well as pelagic species and the likely human impacts of consumption.
- Assess the incidence, causes and population level effects of endocrine disruptive contaminants on fish.
- Predict and prepare for the impacts of climate change on the Bay-Delta ecosystem and its critical species.
- Anticipate likely invasive species and determine how best to minimize and adapt to their introduction.

**Innovative agricultural initiatives**

The extensive agriculture operations within the Central Valley are increasingly being expected to address a wide range of water quality issues. The Central Valley Regional Water Quality Control Board (CVRWQCB) has implemented a unique regulatory program for irrigated agriculture that could serve as a national model to better address problems associated with agricultural discharges. In addition, EPA has been collaborating to help growers achieve progress toward ecologically sound agriculture and regulatory compliance. EPA will work with the CVRWQCB to enhance the

implementation of the irrigated lands program and to provide assistance to agriculture to foster environmental stewardship (e.g., compliance assistance).

Priority activities include:

- Model pesticide impacts on water quality
- Assist growers in promoting environmental stewardship to demonstrate new practices to reducing leading pollutants.
- Demonstrate comprehensive system for dairy waste disposal to limit air and water impacts.