

Memorandum

Date : FEB - 4 1997

To : Rick Woodard, Manager
CALFED Water Quality Program

Manucher Alemi, Coordinator
San Joaquin Valley Drainage Implementation Program
Division of Local Assistance

From : Department of Water Resources

Subject: CALFED Water Quality Projects

In response to your memorandum of December 18, 1996, the following are our general recommendations for water quality projects within the San Joaquin Valley Drainage Implementation Program area that may be suitable for CALFED funding for early implementation. Our recommendations are limited to the Grasslands subarea which drains into the San Joaquin River, as this is the only area within the SJVDIP study area that also falls within the water quality area as defined by CALFED and for which specific recommendations were made in the 1990 Management Plan. The Grasslands subarea districts are organized as the Grasslands Area Farmers, which is actively engaged in implementing a drainage and water quality management plan. CALFED should coordinate efforts to identify specific implementable water quality projects in the Grasslands subarea with the Grasslands Area Farmers Drainage Coordinator, Dennis Wichelns, at (209) 826-9696.

The following general recommendations are specific to the six-point salt management plan proposed by Lester Snow at the Bay-Delta Advisory Council meeting in Burbank.

1. **Detain Drainage and Control Releases.** This is a fundamental drainage management measure that has already been initiated in the Grasslands subarea. Opportunities for funding modification or reconfiguration of the existing drainage systems may improve the ability to detain and control drainage releases. Other actions are investigating surface storage possibilities and completing the real-time monitoring system for managed discharge to the River. We recommend this as one of the best opportunities for CALFED funding to further water quality in the Grasslands subarea.
2. **Concentration and Disposal of Drainage.** The recommended method in the 1990 plan is to develop drainage reuse and agroforestry systems with small evaporators. Pilot projects have been underway for several years with encouraging results in the Westlands and Tulare subareas. No similar project exists presently in the Grasslands subarea, although the tree planting to increase groundwater evapotranspiration is currently under trial implementation by the Panoche Water District. We recommend funding projects similar to the Panoche project in other areas of Grasslands.

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DWR 155 (Rev. 2/86)

<i>Manucher Alemi</i> 1/31/97	<i>ll.l.</i> 2/4/97
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3. **Treat and Recycle Drainage.** PWD is sponsoring an ongoing pilot project for drain water treatment to remove selenium. The project is called the Selenium Removal Pilot Plant, and is a cooperative project between the University of California and the U.S. Bureau of Reclamation. The process being tested is an algal-bacterial selenium removal system. We recommend CALFED funding to further this effort and to test other selenium treatment and removal methods as an opportunity for water quality improvement in the Grasslands subarea.
4. **Incentives for Agricultural Source Control.** Much progress has been made in this area by the Grasslands Area Farmers, including implementation of tiered water pricing, increased flexibility in water delivery scheduling, changes in preirrigation methods, and development of a centralized regional data center for a real-time monitoring system. Projects to modify or upgrade irrigation methods and irrigation water delivery systems may provide a good opportunity for CALFED funding to improve water quality by source control.
5. **Incentives for Land Fallowing and Retirement.** 1990 plan recommendations called for only 3,000 acres of land retirement in the Grasslands subarea by the year 2040 and none by 2000. Given the initial success with other options, we believe that there would be little interest in land retirement in the Grasslands subarea at this time. Incentives for land fallowing or changes in land use may encourage farmers to participate in such programs to reduce drainage volume and improve water quality.
6. **Develop Sources of Dilution Water.** Given the stringent water conservation measures already being implemented in the Grasslands subarea, there is no excess water that could be generated from the area to contribute to the dilution of drainage outflow. Any new sources of dilution water would have to be developed outside the Grasslands subarea.

If you have any questions, please call me at (916) 327-1630 or Wayne Verrill at (916) 327-1667.

cc: SJVDIP Management Group Members and Alternates

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