

**Sacramento and San Joaquin River Basins
Proposed Comprehensive Study**

EXECUTIVE SUMMARY

Background. The great Central Valley of California contains two major river systems: the Sacramento River in the northern valley area and the San Joaquin River in the southern valley area. Since the mid-1800's, these river systems, which have a combined drainage area of over 41,000 square miles, were developed and managed to provide for the region's needs as defined during that time period. Those basic needs were flood protection, water supply, and other water related activities that contributed to the economic growth of the area and the nation.

Over time, the region's needs have changed and lessons have been learned regarding the most effective approach to wise long-term flood plain management. The most recent lesson was the flooding of 1997. It has become evident that the most effective management of the flood plains of the major rivers is not the primarily "structural approach" of building levees and dams as was envisioned in the 1800's and early 1900's but rather a combination of structural and nonstructural approaches that considers the many interrelated benefits to society offered by a river system.

The Federal Government and the State of California have recognized the need and are committed to a new comprehensive approach to flood plain management as described in reports such as the 1997 Governor's Flood Emergency Action Team (FEAT) Report, Federal Public Law 87-874, and the 1998 Energy and Water Development Appropriations Bill.

Objectives. The comprehensive study will cover a four-year period with the first report being developed at 18 months and a second report at the end of the study period. The study will identify problems, opportunities, planning objectives, constraints, and measures to address the general objectives of flood damage reduction and ecosystem restoration. The study will ultimately have implementation plans for long-range management of the entire river systems. The study will include consideration of the full range of structural and nonstructural flood damage reduction measures, as well as the diverse, but interrelated, water and land use management objectives. The study will be fully coordinated and compatible with other related programs such as the CALFED Bay-Delta program.

Products. The 18-month report will consist of:

1. A Framework Plan that: a) identifies potential structural and nonstructural flood damage reduction measures and potential ecosystem restoration measures; b) develops data bases (existing flood control systems, land use/ownership, environmental resources, etc.); c) identifies reservoir reoperation opportunities; d) develops criteria for formulating and selecting elements of the comprehensive plan; and e) identifies opportunities and plan elements that are immediately implementable.
2. Preliminary development of hydrologic/hydraulic models of the two river systems that: a) incorporate rainfall-runoff, flow frequency, and reservoir operations; b) are capable of modeling low and peak flows; and c) model sediment transport.
3. Assessment of past floods to document: a) failure, overtopping, and overflow areas; b) estimates of flood damage; and c) potential for loss of life.

The end-of-study report will consist of:

1. Development of specific elements of the comprehensive plan.
2. Recommendations on how best to implement the various plan elements.
3. Environmental documentation for plan implementation.
4. Results of the immediately implementable elements.