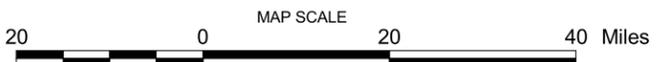


CALIFORNIA
NEVADA



Map Legend:

- Sacramento Basin
- Lake or Reservoir*
- River or Stream
- County Boundary
- Gaging Stations
- City

*Refer to Table II-1 of Appendix C for reservoir inventory number.

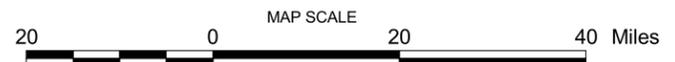
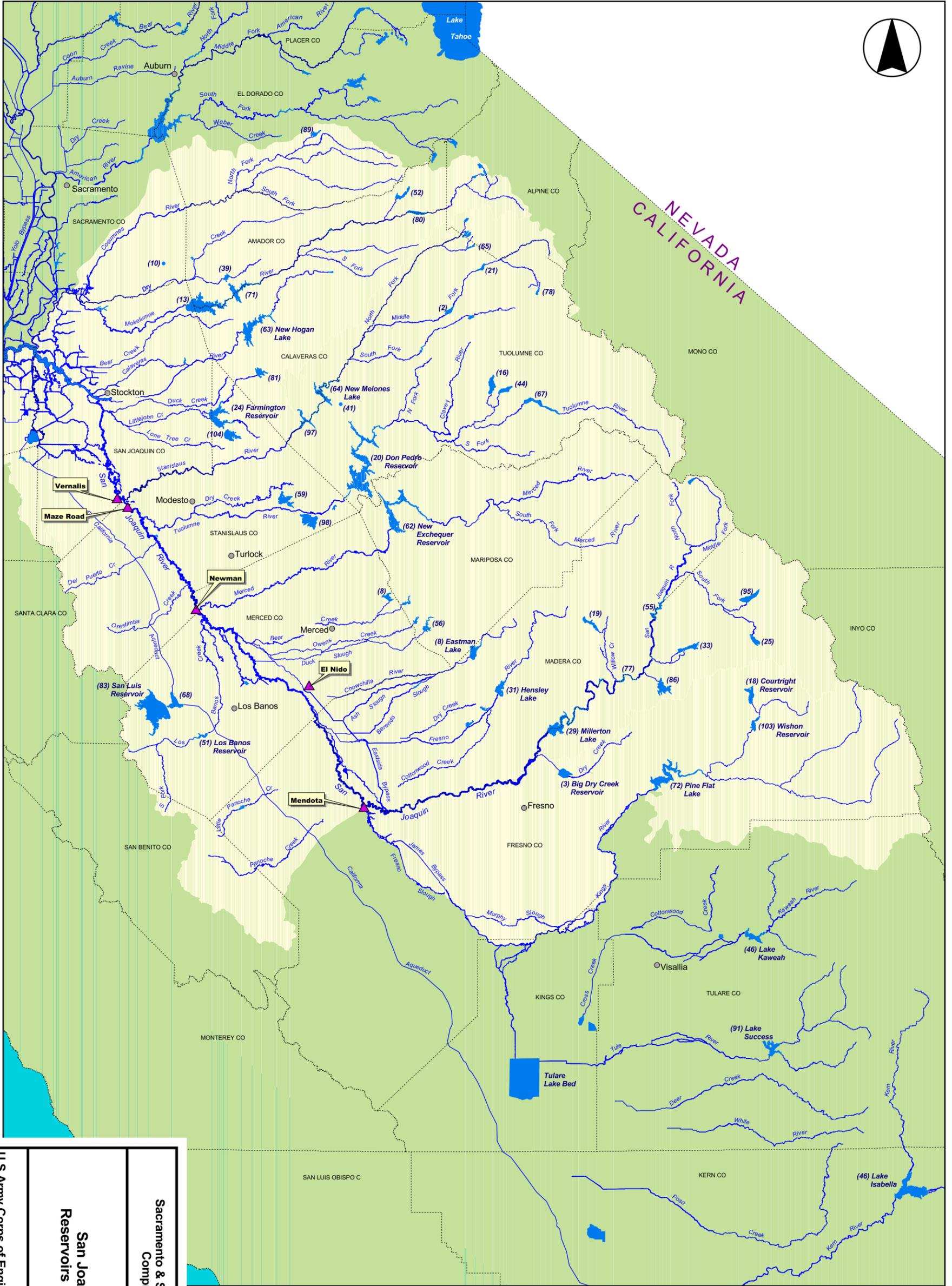
**Sacramento River Basin
Reservoirs and Gage Locations**

**Sacramento & San Joaquin River Basins
Comprehensive Study**

U.S. Army Corps of Engineers
Reclamation Board, State of California

June 2002

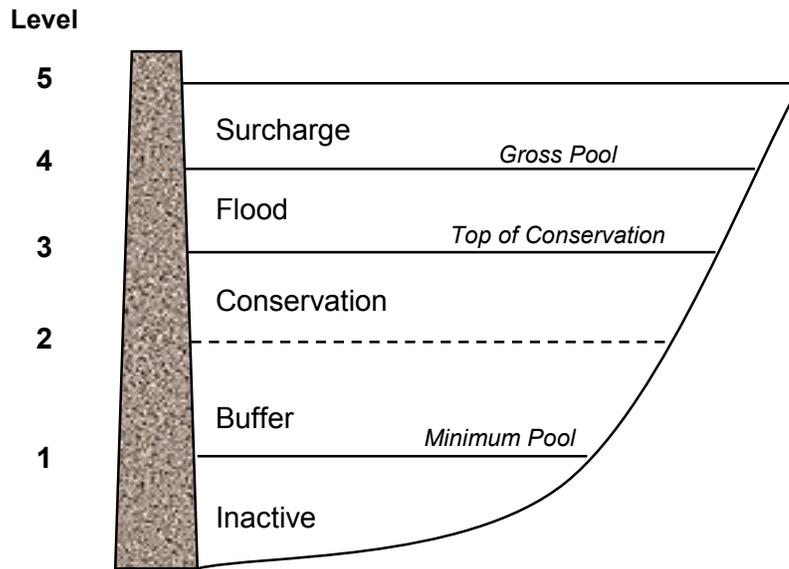
PLATE 1



- Map Legend:**
- San Joaquin Basin
 - Lake or Reservoir*
 - River or Stream
 - County Boundary
 - Gaging Stations
 - City

*Refer to Table II-1 of Appendix C for reservoir inventory number.

U.S. Army Corps of Engineers
 Reclamation Board, State of California
 June 2002
 Sacramento & San Joaquin River Basins
 Comprehensive Study
 San Joaquin River Basin
 Reservoirs and Gage Locations



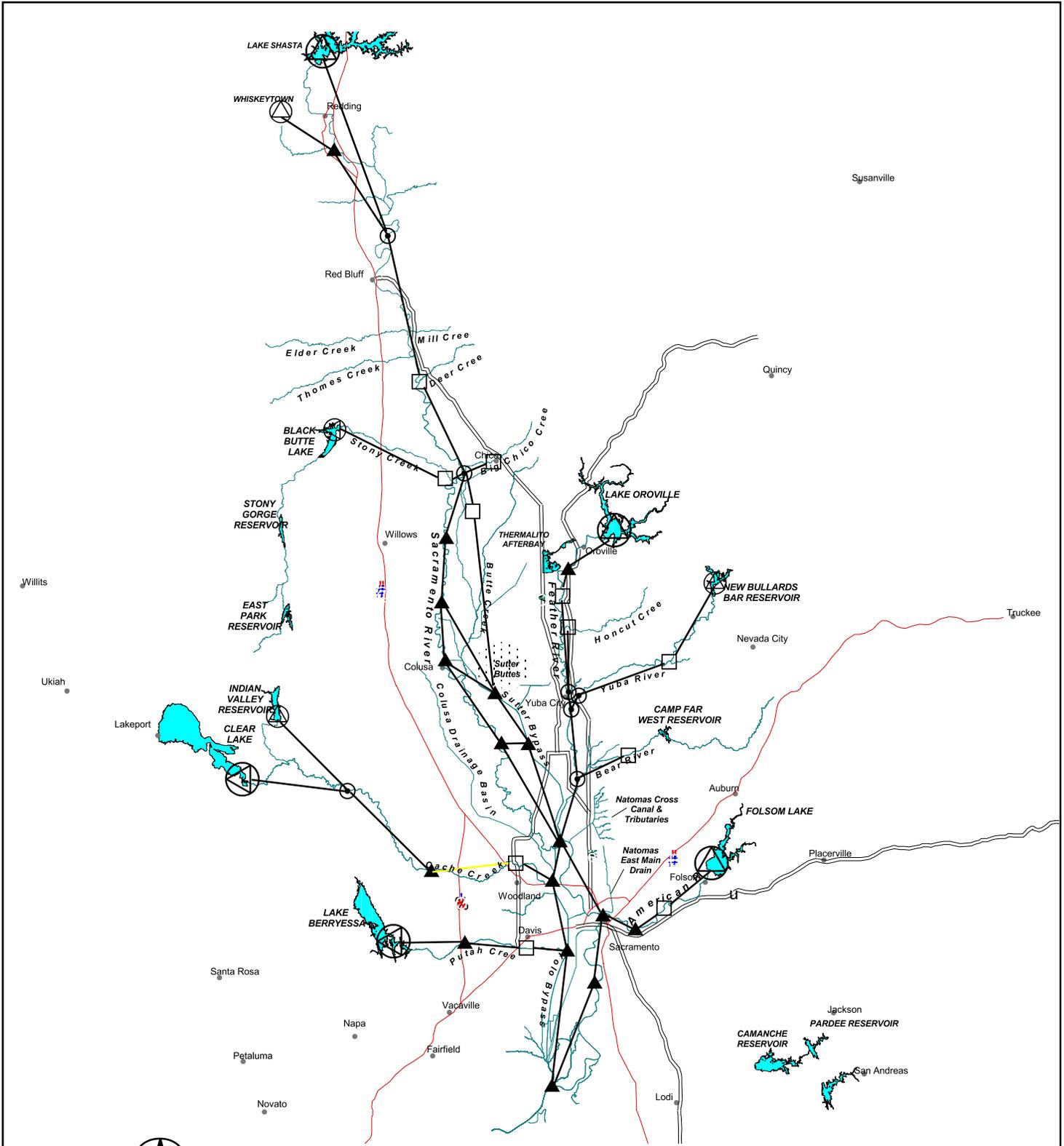
Reservoir Storage Zones and Levels

- Level 1** **Top of Inactive Pool** – The storage at this level may be zero, or may be a minimum pool level.
- Level 2** **Top of Buffer Pool** – The Buffer Pool is a division of the Conservation Pool. When the pool level drops into a Buffer Zone, a drought condition is indicated. During these times, only essential demands will be met (required flows).
- Level 3** **Top of Conservation** – Space in the Conservation Pool is reserved for the various water demands on the reservoir: agricultural, environmental, municipal and industrial, and other needs.
- Level 4** **Flood Control Pool** – Water is stored in this zone when it cannot be safely passed through the downstream channel system.
- Level 5** **Surcharge Pool** – Typically, a reservoir has surcharge storage to accommodate water above the emergency spillway. In the surcharge zone, the outflow is determined by the spillway capacity.

Sacramento & San Joaquin River Basins
Comprehensive Study

Plate 3
Flood Control Space Diagram

US Army Corps of Engineers
The Reclamation Board, State of California December 2002



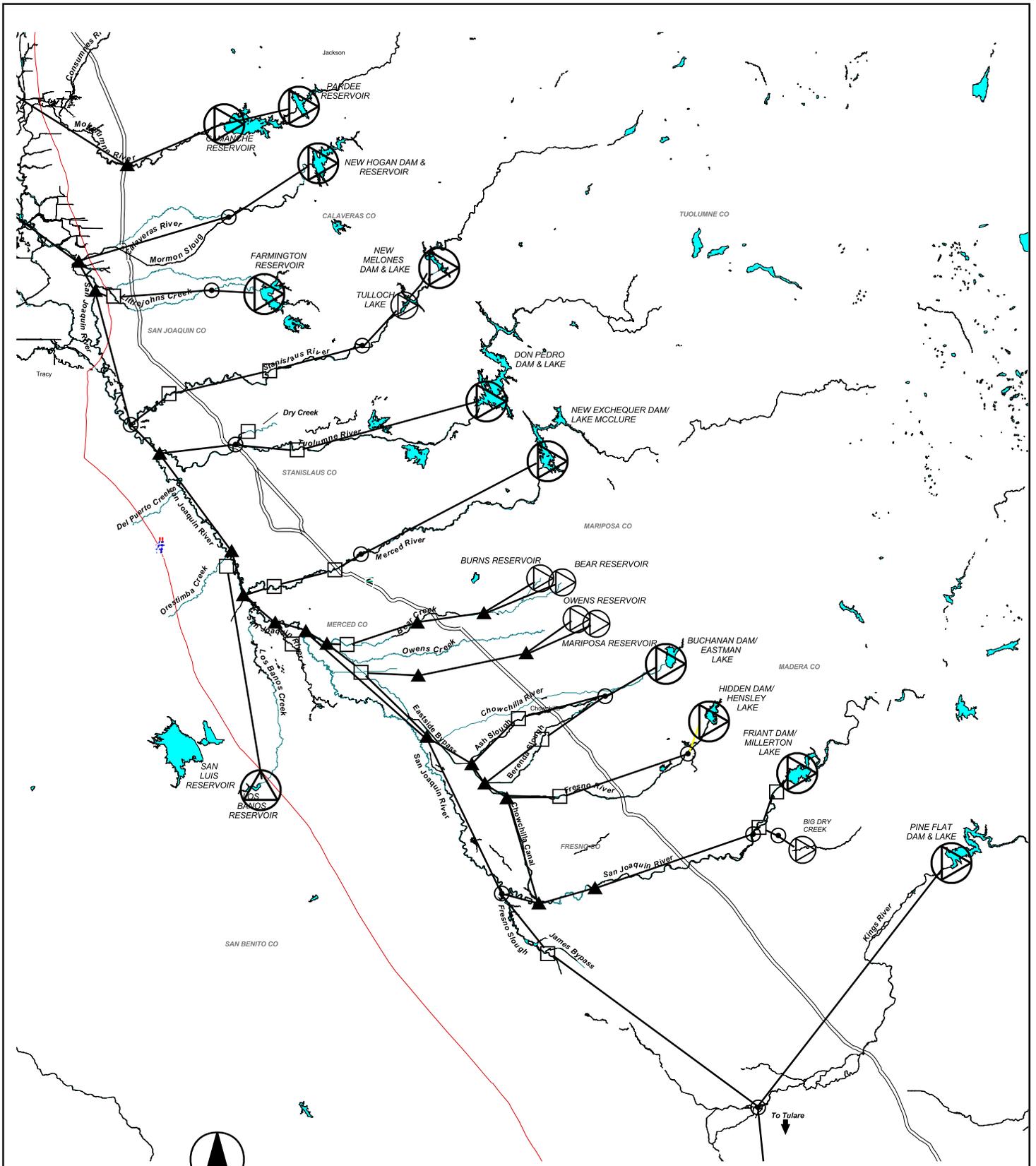
Legend

- ▲ Nodes
- UNET Handoff Points
- ⊙ Reservoir
- ⊙ Operational Points

Sacramento & San Joaquin River Basins
Comprehensive Study

Plate 4
Sacramento River Basin
HEC-5 Model Schematic
Lower Basin

U.S. Army Corps of Engineers
Reclamation Board, State of California June 2002



5 0 5 10 15 Miles

Legend

- ▲ Nodes
- UNET Handoff Points
- ⊙ Reservoir
- ⊙ Operational Points

Sacramento & San Joaquin River Basins
Comprehensive Study

Plate 5
San Joaquin River Basin
HEC-5 Model Schematic
Lower Basin

Full natural flows into major lower basin reservoirs developed in the synthetic hydrology (sec A appendix) (lower basin)



Full natural flow into the major reservoirs distributed (split) to headwaters reservoirs based on normal annual precipitation, historic sub-basin yield, and % of total watershed area.



Q_{hw-nat}

Step 1
HEC-5 simulation
of headwaters reservoirs

Q_{hw-reg}

Regulated inflow to lower basin reservoirs

Step 2
Compute
top of conservation



Q_{in-reg}

Step 3
HEC-5 simulation of
lower basin reservoir

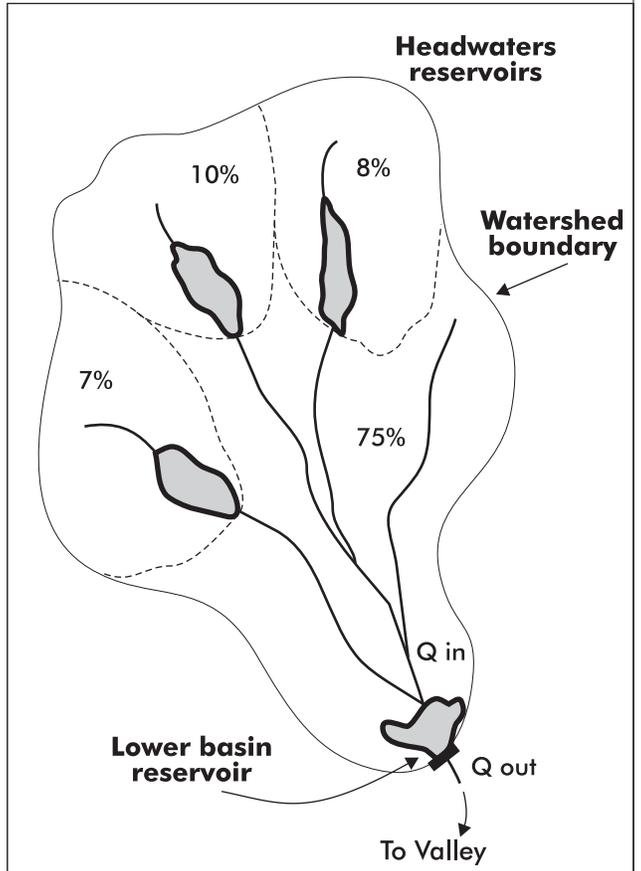


Q_{lb-reg}

Regulated outflow hydrographs for lower basin reservoirs

HYDRAULIC MODELING

Flowchart Key



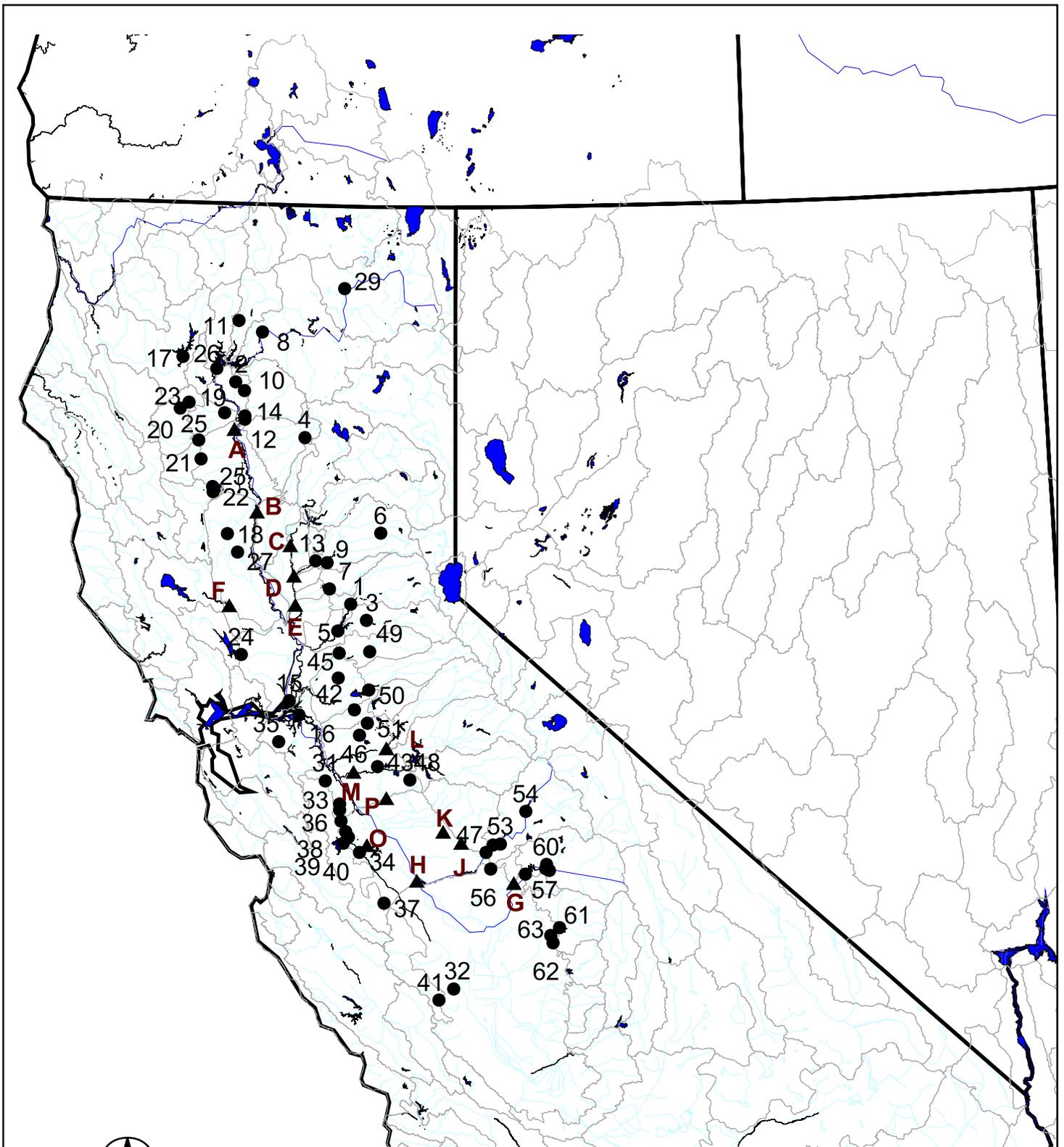
- Nat – Natural flow not accounting for reservoir operation
- Reg – Flow accounting for regulation by reservoir
- Q – Flow
- lb – Lower basin

Sacramento & San Joaquin River Basins
Comprehensive Study

**Plate 6
PROCESS FLOWCHART**

U.S. Army Corps of Engineers
Reclamation Board, State of California

June 2002



8 0 8 16 Miles

- Legend**
- ▲ Control Points
 - Project Locations
 - Rivers and Flow Conveyance Facilities
 - Watershed

Sacramento & San Joaquin River Basins
Comprehensive Study

Plate 7
On-Stream and Off-Stream Storage
Proposed Project Location

U.S. Army Corps of Engineers
Reclamation Board, State of California June 2002