

**CALFED DWRSIM Studies**  
**Status Update**  
January 23, 1997

Model Refinement

Work has progressed on implementing DWRSIM version 8.18. Primary differences in this version over previous versions of DWRSIM include:

- New SWP and CVP delivery logic was incorporated using runoff forecast information and uncertainty. Previous version used perfect hydrological foresight to determine deliveries.
- The network schematic was expanded to include more detail in the Delta and along the Delta-Mendota Canal and San Luis Canal.
- A network representation of the San Joaquin River basin was adapted from USBR's SANJASM model.
- G-Model incorporated for flow versus salinity relationship.

In addition, new DWRSIM features developed for the CALFED Storage and Conveyance Refinement Process include:

- North-of-Delta Off-Stream Storage.
- North-of-Delta Ground Water Storage.
- In-Delta Storage.
- Isolated Delta Conveyance Facility.

Current Modeling Issues

- G-Model performance concerns in combination with isolated conveyance facility.
- Approach to SWP/CVP coordinated operation.
  - ✓ Additional SWP wheeling of CVP supplies.
  - ✓ SWP "surrogate demand".
  - ✓ Priority of SWP Interruptible deliveries.
- Environmental water supply modeling.
  - ✓ Demand targets.
  - ✓ Separate environmental storage and conveyance versus revised water supply operation constraints.

Requested Studies

- Benchmark
  - ✓ Run 1 (Completed): Existing Facilities, Existing Banks Capacity, 2020-Level SWP & CVP Demands.
- Delta Improvements w/ Existing Storage
  - ✓ Run 2 (Completed): Benchmark assumptions w/ SDI (increased Banks capacity).
  - ✓ Run 3: Dual-Transfer, w/ 5,000 cfs Isolated Conveyance Facility.
  - ✓ Run 4: Dual-Transfer, w/ 15,000 cfs Isolated Conveyance Facility.
- North-of-Delta Storage (3.0 MAF storage capacity, 5,000 cfs inflow/outflow conveyance capacity).
  - ✓ Run 5: w/o Delta Improvements (existing Banks capacity).

- ✓ Run 6: w/ SDI (increased Banks capacity).
- ✓ Run 7: w/ SDI and Isolated Conveyance Facility.
- South-of-Delta Storage (2.0 MAF storage capacity, 3,500 cfs inflow/outflow conveyance capacity).
  - ✓ Run 8: w/o Delta Improvements (existing Banks capacity).
  - ✓ Run 9: w/ SDI (increased Banks capacity).
  - ✓ Run 10: w/ SDI and Isolated Conveyance Facility.
- Combined Storage Facilities/Dual Conveyance.
  - ✓ Run 11: (South-of-Delta Storage: 2.0 MAF storage capacity, 3,500 cfs inflow/outflow conveyance capacity; North-of-Delta Storage: 3.0 MAF storage capacity, 5,000 cfs inflow/outflow conveyance capacity; Dual-Transfer, w/ Isolated Conveyance Facility).