

**Texas A & M University and U.S. Bureau of Reclamation**  
**Hydrologic Modeling Inventory**  
**Model Description Form**  
**July 18, 2007**

**Name of Model:** Large Scale Catchment Model (CALSIM – now called WRIMS)

**Model Type:** General purpose

**Model Objective(s):** The simulation of large, complex water resource systems for planning studies that evaluate rapidly changing alternatives.

**Agency and Office:** California Department of Water Resources

**Technical Contact and Address:**

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**Model Structure or Mathematical Basis:** LP/MILP solver routes water through a network given user defined objectives, constraints, and priority weights.

**Model Parameters:** User-defined

**Spatial Scale Employed in the Model:** User-defined

**Temporal Scale Employed in the Model:** Monthly, Daily

**Input Data Requirements:** System objectives and constraints in ASCII text files, ASCII text lookup table (relational) data, HEC-DSS timeseries data

**Computer Requirements:**

30 MB hard disk space,  
128 MB RAM,  
Pentium 266 MHz processor,  
Lahey Fortran 90 v4.5,  
XA Callable Library v13.4 (Sunset Software Technology)

**Model Output:** HEC-DSS time series format

**Parameter Estimation / Model Calibration:** User-defined

**Model Testing and Verification:** User-defined

**Model Sensitivity:** User-defined

**Model Reliability:** Good. Technical support from DWR and Sunset Software.

**Model Application / Case Studies:** California SWP/CVP system, Klamath River system

**Documentation:** <http://modeling.water.ca.gov/hydro/model/documentation.html>

**Other Comments:** WRIMS 2.0 release (expected ~ 2008) will no longer require the Lahey compiler, and will include the use of a SQL Server Database for creation and maintenance of constraints and table data.