Release Notes on CalLite Version 1.10R

1. Input hydrology has been updated to match with the latest CalSim II Common Assumption 9B1. As previous, CalLite hydrology has been developed using the CALSIM II 2005 and 2030 LOD base hydrology. The schematic representation of CalSim II Common Assumption 9B1 is very similar to that of 9A except in the detail Delta system. In the latest CalSim, Delivery – Carryover rule curve has been replaced by a function for State Water Project. This new function has also been implemented in CalLite.

2. Twenty four climate change scenarios have been incorporated in combination of six different Atmosphere Ocean General Circulation Models (AOGCM), two different greenhouse-gas emission scenarios (i.e., A2 and B1) and two projection periods (i.e., Mid Century and End of Century). The scenarios are very similar to the latest Climate Action Team (CAT) report. Significant changes were made in the "HydrologicData" module to in order to incorporate multiple hydrology time series datasets.

3. A new Dynamic Link Library (DLL) has been developed and linked with CalLite to estimate water quality (Electrical Conductivity) and X2 (Salinity of 2 PPT) positions. For the current (base) sea level rise condition, CalLite provides options to choose either Artificial Neural Network (ANN) method or KM Equation for estimating X2 positions.

4. Artificial Neural Networks (ANNs) were developed to estimate flow salinity relationships and X2 positions in the Delta for different sea level rise scenarios. ANNs were trained using simulated DSM2 data with different sea level rise options. These trained ANN are incorporated and linked dynamically in CalLite to ensure salinity standards are met when the projects are operated. At present the two projected sea level rise scenarios have been developed and implemented in CalLite: 1 ft and 2 ft sea level rises.

5. Several bypass options have been implemented in CalLite. New Bypass options are Deep Water Ship Channel Bypass and Stone Lakes Bypass. Fremont weir bypass has also been modified.

6. Delivery allocations for the CVP and SWP are implemented with three options. The first option incorporates the Water Supply Index – Delivery Index (WSI-DI) logic that is included in the current CALSIM II model. As a second option, delivery allocation process that more closely represents the forecast-based procedures used in reality is modeled. A third option is implemented to enter user-specified allocation values for each project to enhance comparison of different alternatives under the same operating conditions.

7. Roe Island salinity trigger under "Regulation" dashboard is added as on option for X2 modeling purpose.

8. User guide has been updated to add appendixes for New North Delta Bypass options, Sea Level Rise options, Climate change options and Delta regulation standards (D-1641). The document also includes other updated information and functionalities.

9. User input summary spreadsheet has been updated to match dashboard user input.

10. Reviewed and fixed North and South of Delta deliveries accounting and reporting.

11. Review and fixed water management actions (future facilities).

12. New buttons on the “Results” dashboard were added to show new option results.

13. Updated all post-processing excel spreadsheets to be consistent with standard CalSim calculation procedure.

14. Tasks are underway: (a) Migrating CalLite model from GoldSim V9.60 to V10 which has many options for dashboards; (b) Migrating all CalLite spreadsheets from Excel 2003 to 2007; (c) Training a new ANN for Isolated facility as Delta geometry changes; and (d) Refining the storage options under water management actions.

15. Software installation instruction:
    a. CalLite model is based on GoldSim V 9.60. If you have GoldSim Player, you do not need to install GoldSim software after CalLite installation.
    b. If you do not have GoldSim player, you need to install both GoldSim 9.60 and CalLite.