

This map represents the modeled soil moisture conditions in areas of the basin that contribute most to the runoff. Soil moisture is averaged over each modeled basin. In the Fall, this map gives an idea of what areas will have more efficient runoff (wetter than normal), and which areas will not be as efficient (drier than normal).

Quick overview of soil moisture modeling at the CBRFC: The CBRFC uses the Sacramento Soil Moisture Accounting Algorithm (Sac-SMA) to simulate basin runoff from rain and snowmelt driven events. Sac-SMA divides the soil response into fast responding upper zone and the longer term lower zone. The lower zone portion of the model helps to determine the volume of runoff during the spring and summer months by indicating a basin's antecedent condition prior to melt. Images linked below are a snap shot of the date's lower zone contents as a percentage of the average or median contents on that date. The daily average and median values for each elevational sub-area within the river basin are derived from the calibration process during which the model parameters are adjusted to match the historical observed stream flow. In the Upper Colorado and Lower Colorado this period is water years 1980 through 2010. Forecasters may use these images to help explain atypical basin responses from [ESP](#).

It should be noted that once the melt has commenced, lower zone free supplemental will indicate higher total contents. This is **not** indicative of the longer-term soil moisture influence on ESP.

More information on Sac-SMA can be found [here](#).