# Sierra snowpack readings promise abundant water

**Kelly Zito, San Francisco Chronicle, 5-3-11**

The big melt is on.

After topping out near record levels in early April, snowpack in the Sierra Nevada has started to recede, state officials said Monday, beginning to trickle into California's streams and reservoirs and promising the first ample supply of water in years.

The Department of Water Resources said measurements of mountain snowfields taken Monday morning showed that snow-water content - the amount of water contained within the packed flakes - stood at 144 percent of the April 1 long-term average, down from 165 percent one month ago.

The May figure is typically lower than the all-important April figure, which represents the peak snowpack volume and the source of about one-third of the water used in the state each year.

"All indications are that we're moving toward summer with a good water supply for our farms and cities," said department director Mark Cowin in a statement.

Still, Cowin and others used this season's extended wet and dry periods - January, half of February and April were comparatively light on rain and snow - to illustrate that California's strained water system is always at the mercy of subtle and not-so-subtle shifts in weather patterns.

"There will be more carryover water this fall," said Maury Roos, a veteran hydrologist with the state water agency, "which could be useful if the next year is dry and we need to coast for a bit."

In the near term, state water managers will keep their eyes on the skies. After crossing their fingers for months that heavy clouds would bring higher and higher piles of snow, they now hope that sunny, warm weather will not melt those drifts too quickly and overwhelm rivers and levees.

In a typical year, Roos said, about 70 million acre-feet of water wash down California's mountainsides and rivers, flowing into the Pacific Ocean, inland lakes or man-made reservoirs (one acre-foot is about 326,000 gallons, or enough water to supply one to two households for a year). Of that, about 33 million acre-feet goes to cities and farms, he said.

A prolonged dry spell between 2006 and 2009 meant a less stable supply that forced many communities to ration water. Farmers, on the other hand, had to fallow or plow under their fields when it became clear they wouldn't have adequate irrigation water.

This year, with key reservoirs brimming, the picture is markedly different. Storage at Lake Oroville, the state's main reservoir in Butte County, stands at 93 percent of capacity, or 112 percent of average for the date. And Lake Shasta, the U.S. Bureau of Reclamation's largest reservoir in California, is at 94 percent of capacity, or 108 percent of average for the date.

Both agencies have steadily increased their estimates for the amount of water they will be able to deliver in 2011.

The state predicts it will provide about 80 percent of the water requested by contracting agencies based on historical allocations (that number is expected to rise further). Last year, it delivered 50 percent.

The U.S. Bureau of Reclamation, meanwhile, recently upped its forecasted deliveries to 100 percent for many of its customers and 75 percent for those with more "junior" water rights.