Impact of a warming climate on Sierra Nevada

By Tara Lohan, Water Deeply

Imagine a California where springtime temperatures are 7 degrees warmer than they are today, where snowmelt runoff comes 50 days earlier and the average snowpack is just 36 percent of the 1981–2000 average.

That may be the reality by the end of the century if we don't curb greenhouse gas emissions, say researchers from UCLA. A recent report from the UCLA Center for Climate Science analyzes how climate change will impact the Sierra Nevada and what that will mean for water resources.

In particular the research examines changes to temperature, the amount of snowpack and the timing of runoff and which elevations and watersheds will be most affected as the climate warms. It also compares how these factors may change with "business as usual" and do little to curb greenhouse gas emissions, versus a scenario in which greenhouse gas emissions begin to level off around 2050.

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