

# Study: Climate change could bring earlier Sierra runoff

By Rebecca Ash, UCLA

California has taken a wild weather ride over the past two years: A historic drought finally came to an end, and the winter of 2016–17 was the wettest winter in decades. Meanwhile, recent studies have projected that climate change will turn up the heat by up to 10 degrees in the Sierra Nevada mountains by the end of the century.

In a study published Oct. 10 in the Journal of Hydrometeorology, UCLA climate scientist Alex Hall and colleagues predicted that by the end of the 21st century, the runoff midpoint for snow and rainwater – the time of year by which half of a year's precipitation leaves the mountains as runoff – could be an average of 50 days earlier than it is now, and 90 days earlier in some locations. The finding could have serious implications for the state's water infrastructure, which was not designed to handle such a major shift, according to Hall.

Understanding runoff timing would allow California water managers to better plan for the future.

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