

Drought and the SIERRA NEVADA

The Sierra Nevada Region is the source of more than 60% of California's developed water supply

At the beginning of this year, manual and electronic measurements recorded the statewide water content of Sierra snowpack at about 20% of average, and reservoirs fed by Sierra rivers remain at some of the lowest levels on record. The effects of low snowpack and dwindling reservoir levels are being felt by businesses and homes all over California.

- According to the California Department of Food and Agriculture, the Central Valley may be forced to fallow 300,000 to 500,000 acres of farm land in the spring due to heavy cutbacks in water allocations - that's more than five times the size of the City of Sacramento.
- Tahoe area ski resorts like Royal Gorge and Donner Ski Ranch are temporarily closed, and low water levels in Lake Tahoe have caused one cruise ship company to temporarily stop offering cruises in to Emerald Bay to avoid damage to the boat's propeller.
- In December, the Sacramento County Water Agency urged customers to reduce water use by 20 percent. The city of Folsom ordered a 20 percent reduction in water use and has limited outdoor watering to two days a week.

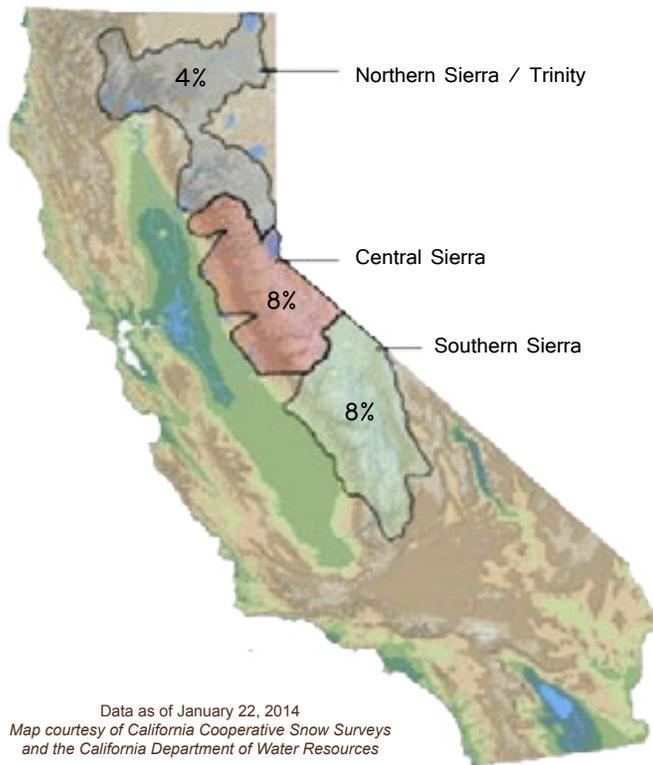
Sierra forests and meadows play a role in ensuring water quality and reliability for the state. As is evidenced by this year's drought, rising temperatures and changing precipitation patterns threaten California's water system and make investing in healthy Sierra Nevada watersheds more important than ever.

Up to 50% of the flow into the Sacramento-San Joaquin Delta comes from the Sierra. Healthy Sierra Nevada forests and meadows are critical components to California's water system, and restoring them has become more important than ever.



Sierra snowpack comparison, January 2013 to January 2014.
Images courtesy of the National Oceanic and Atmospheric Administration

Statewide Summary of Snow Water Content



Sierra Nevada resources are already under pressure

During the historic drought of 1977 roughly 22 million people called California home. Now, California's population has grown to more than 38 million, and in 2050 the population is projected to increase to 50 million. As our population grows, even more pressure will be placed on the state's primary water source - the Sierra Nevada.

Sierra meadows have become degraded, resulting in a loss of natural storage that would be released slowly over the dry months when flows are needed most. Healthy meadows also filter sediment and pollutants, contributing to higher quality water for your tap. Investing in meadow restoration is key to optimizing the storage and water quality improvement opportunities that the Sierra Nevada provides naturally.

In addition, Sierra forests are overgrown and unhealthy, and current drought conditions will likely result in an increase in the frequency and intensity of large, damaging wildfires.

Red Flag Warnings have been issued for parts of the Sierra where dry forest conditions are more similar to the month of July than the beginning of January. These fires, like the Rim Fire, can dramatically increase sedimentation and reduce the storage capacity of existing reservoirs.

Investing in the removal of excess biomass fuel, or the small-diameter woody material, branches, and diseased or insect infested wood that is not suitable for commercial use, can improve forest health and reduce the risk of catastrophic wildfire. Development of additional biomass power generation facilities in the Sierra Nevada Region that utilize forest waste would provide a ready market for biomass removed as a byproduct of forest restoration activities, creating renewable energy for California, while at the same time protecting forests and communities from large, damaging wildfires.

The Sierra Nevada Conservancy is a state agency that carries out a mission of protecting the environment and economy in a complementary fashion across 25 million acres, one-quarter of the state. To learn more, please visit the Sierra Nevada Conservancy Web site.

Immediate investment in projects that make the Sierra Nevada more drought and fire resilient in the future, such as meadow restoration, forest thinning, and biomass utilization, is essential to ensuring that California's water system can perform under future pressure.

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