

## USDA California Climate Hub News & Notes



**United States Department of Agriculture  
California Climate Hub**

The USDA California Climate Hub within the Agricultural Research Service at the UC Davis John Muir Institute works with partners across federal and state agencies, universities, and industry to help enable climate-informed decision making and advance the adaptive capacity for California's working and managed agricultural, range, and forest lands. These monthly newsletters are just one approach toward meeting this objective. We encourage you to get in touch with us if we can be of further service or assistance.

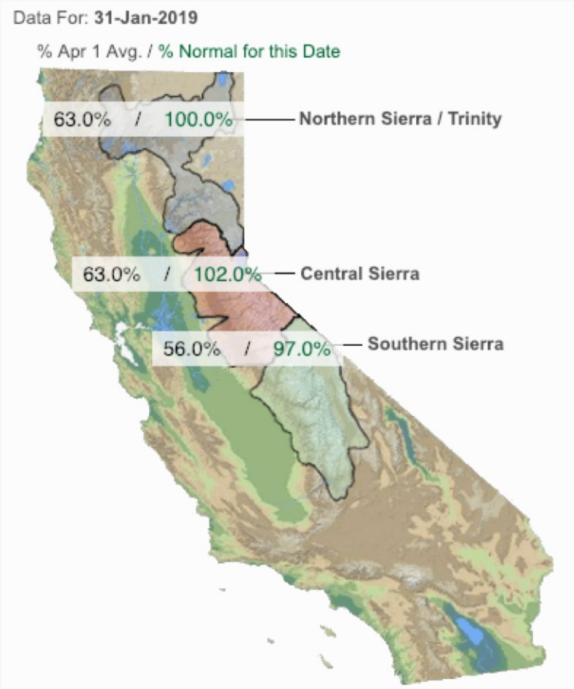
[Visit the USDA Climate Hub Website](#)

### Sierra Snowpack Updates

Mountain snow provides roughly 30% of California's annual freshwater supply, providing water for agriculture, municipal use, and hydropower.

As January comes to a close, the Sierra snowpack is ~100% of normal in terms of snow water equivalent.

Storms in December and January left the Sierra with feet of snow and filled reservoirs with billions of gallons of water, and another. This is a far cry from last year's snowpack, which managed only ~58% of average at the end of winter. Such large year-to-year swings between dry and wet winters may become increasingly extreme in the future. A great discussion on this "precipitation whiplash" can be found on the [Weather West](#) blog.



## California's 4th Climate Change Assessment: Inland Desert Region



The Inland Desert is the hottest and driest geographic region in California and is home to agricultural operations in the Imperial Valley, protected national park and national monument lands, and wildlife refuges around the Salton Sea. Climate change is already affecting the region, with warmer daytime maximum temperatures and more extreme heat events. The 4th California Climate Change Assessment [Inland Deserts Regional Report](#) indicates that these warming trends will continue and highlights some of the impacts of these changes. Here we provide

a few key findings and encourage you to visit the full report with the button below.

- **Precipitation** changes include:
  - **Wetter winters**, with precipitation on the wettest day increasing by up to 30%
  - **Drier summers** due to a weakened North American Monsoon and the greater water holding capacity of warmer air
- **Temperature** changes include:
  - **Warmer daytime and nighttime temperatures**
  - **More extreme heat days**
- **Impacts** include:
  - **30% reduction in flows on the Colorado** in the coming decades
  - **Degradation of Salton Sea wildlife habitat** due to reduced inflows and increased salinity
  - **Increased wildfire activity**
  - **Reduced frost risk**
  - **30% reduction in outdoor activity days** that are important to tourism economies such as Coachella Valley
- **Mitigation practices** include:
  - **Renewable energy investments such as solar, wind, and geothermal.** ~20% of statewide renewable energy projects were granted permits in the Inland Desert region.

- Construction of renewable energy sites has had a net positive economic impact for local economies in recent years

## Inland Deserts Regional Climate Change Assessment

### Hub Activities and Engagements

The California Climate Hub had a successful first quarter and we are grateful to have been able to interact with many of our partners on successful workshops, outreach and education opportunities, and research projects. A few recent highlights include:

- A successful reforestation workshop (highlighted in December's newsletter) where scientists and managers were able to interface and discuss strategies and practices to increase the adaptive capacity of forest resources.
- In partnership with a consortium of scientists, received funding from California's Strategic Growth Council to research scalable methods of using rock, compost, and biochar to sequester greenhouse gasses.
- New networks and groundwork for new and fruitful partnerships through outreach and engagement at California specialty crop industry events such as the Almond Conference.

### Upcoming: Rangeland Drought Workshops

Weather, grasslands, and drought. How can we plan in the face of uncertainty? UC Cooperative Extension in partnership with the National Drought Mitigation Center, the USDA California Climate Hub, and the National Integrated Drought Information System is hosting 4 [regional workshops](#) on climate and drought resources to support rangeland drought planning.

**Coastal California: Solvang**  
**Wednesday, February 6th, 5:00pm - 8:15pm**

**Central California: Tulare**  
**Thursday, February 7th, 5:00pm - 8:15pm**

**Sacramento Valley/Foothills: Loomis**  
**Tuesday, February 12, 2019, 9:00am - 2:00pm**

**Northern California: Susanville**  
**Wednesday, February 13, 2019, 12:00pm - 4:30 pm**

More information on these workshops, including links for registration, can be found by clicking the button below.

## Save the Date: California Climate and Agriculture Network Summit March 4th and 5th in Davis

The California Climate and Agriculture Network, or CalCAN, is a statewide coalition that works to support



sustainable and climate-smart agriculture through developing and advancing policies that support emissions reductions, carbon sequestration, and climate change adaptation efforts on working farm and ranch lands across the state. CalCAN's bi-annual meeting will be held at UC Davis in March and will bring together hundreds of farmers, ranchers, researchers, and policy makers to discuss the latest in agricultural science, policy, and practice.

## Other Upcoming Events

(click on each for more info)

### 2019

Sustainable Water Management Conference

Tucson, Arizona - March 31st-April 3rd

National Adaptation Forum

Madison, Wisconsin - April 23rd - 25th

## Funding Opportunities

- The US Forest Service Citizen Science Competitive Funding Program for FS units and partners. Funds are for citizen science projects. *Deadline extended due to shutdown. Follow the link for more information.*
- The California Dept. of Food and Agriculture State Water Efficiency and Enhancement Program for agricultural

operations. Funds are for irrigation system improvements for water conservation and greenhouse gas emissions reduction. Applications due March 8th.

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## Stay in Touch

Let us know if you have news worthy items, outputs or products, or associated resources that may be of interest to the USDA California Climate Hub community. You can email items to [Steven Ostoja](#), USDA California Climate Hub Director, or to [Lauren Parker](#), USDA California Climate Hub Postdoctoral Fellow.



### STAY CONNECTED

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