

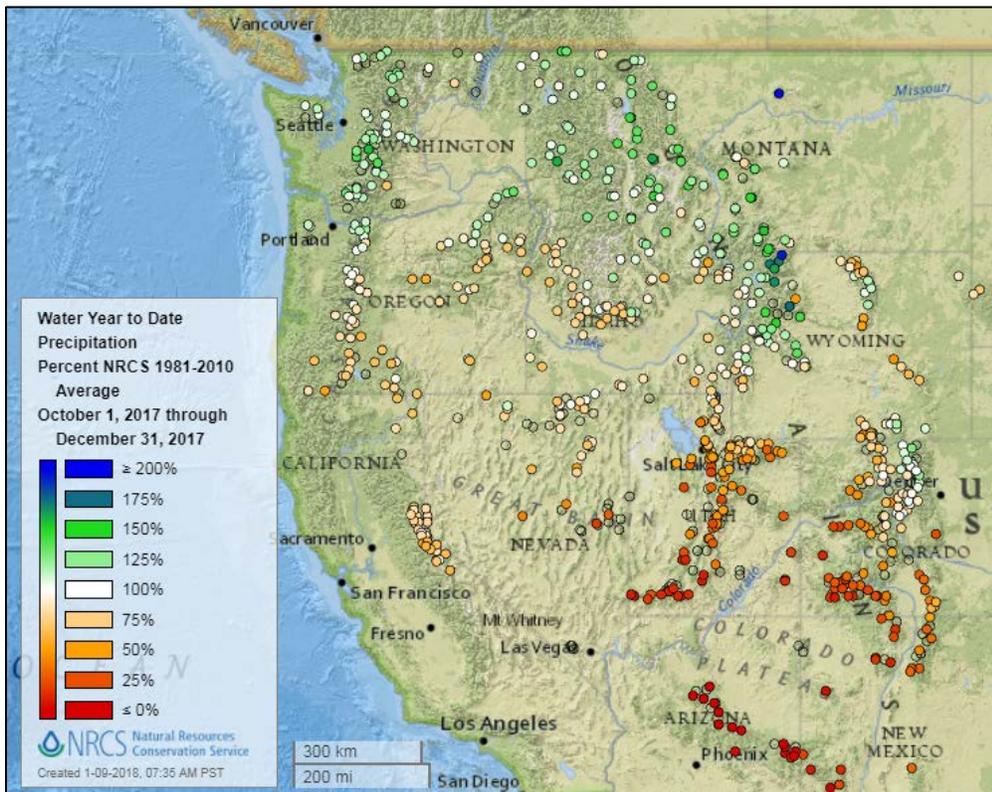
Western Snowpack and Water Supply Conditions January 2018

Overview

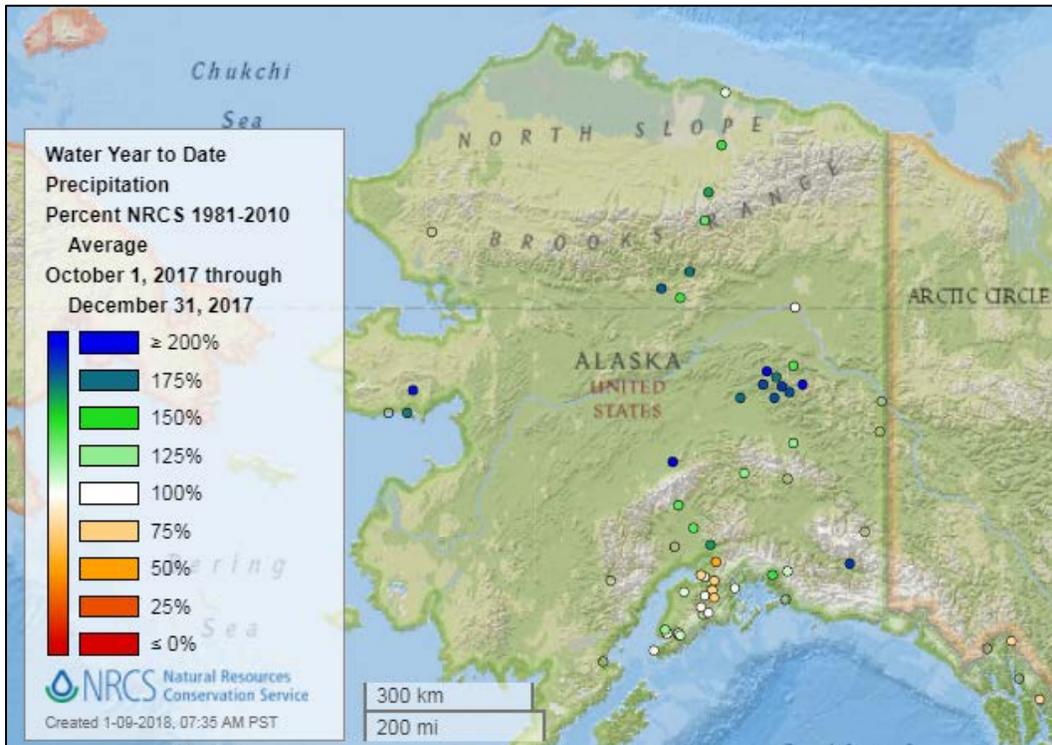
This report summarizes Snow Telemetry (SNOTEL) and snow course network data, streamflow forecasts, and reservoir storage data collected and analyzed by the USDA Natural Resources Conservation Service [National Water and Climate Center](#).

Precipitation thus far in the water year (beginning October 2017) has been below normal in much of the West except for northern areas in Washington, Idaho, Montana, and Wyoming as well as Interior Alaska, where it has been near to well above normal. **Snowpack** shows an extreme contrast between these wet northern areas, with near to well above normal snowpack, and the very low snowpack of the southerly areas. **Streamflow forecasts** reflect the snowpack distribution, with a majority of the West expecting well below average streamflow but some northern areas expecting near to above average streamflow. **Reservoir storage** is currently above average in most western states, with only Arizona, New Mexico, and Washington being below average.

Water Year-To-Date Precipitation



[Precipitation for the 2018 water year-to-date](#) has maintained a pattern of wet in the north and dry in the south for the entire three-month period (Oct. - Dec.) so far. Drier than average precipitation begins in Oregon and continues southward, with the four-state area of Utah, Colorado, Arizona, and New Mexico being extremely dry.



[Precipitation in Alaska for the 2018 water year-to-date](#) has been somewhat below average in the south coastal areas and well above average toward the north and into the Interior.

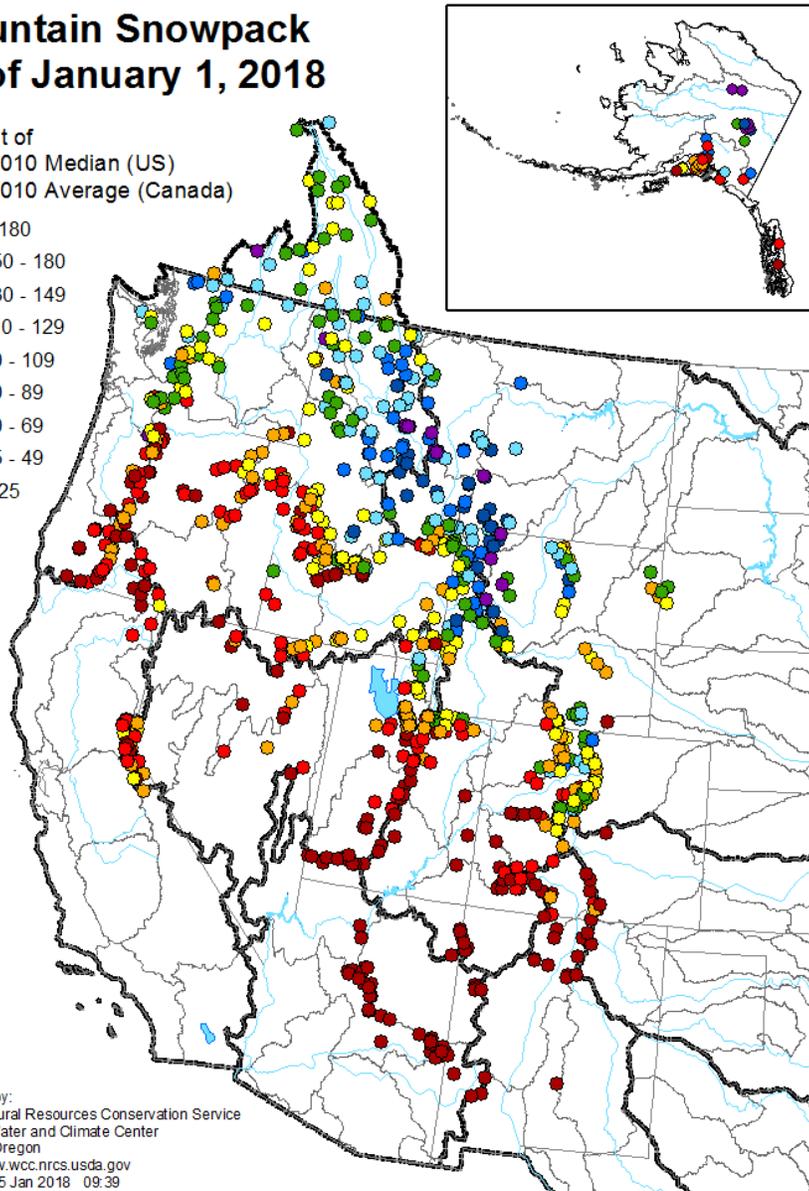
Basin-filled maps containing monthly and daily updates of SNOTEL precipitation are available at: <https://www.wcc.nrcs.usda.gov/gis/precip.html>. Updates can also be obtained via the Interactive Map, available at: https://www.wcc.nrcs.usda.gov/snow/snow_map.html.

Snowpack

Mountain Snowpack as of January 1, 2018

Percent of
1981-2010 Median (US)
1981-2010 Average (Canada)

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25



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[Snowpack at SNOTEL sites and snow courses as of the 1st of January](#) in the western U.S. and the Columbia Basin in Canada shows a stark contrast between the northern and southern parts of the region.

Near to well above median snow water equivalent lies in a northwest to southeast ranging zone, from Washington and British Columbia down into northern Idaho, western Montana, northwestern Wyoming, and a bit of northern Colorado.

In complete contrast, all areas south and west of this demarcation have well below median snow water equivalent, with many sites registering record low snowpack.

In Alaska, snowpack is generally below median in southern areas and above median in the Interior.

Maps with daily updates of the snowpack (SNOTEL data only) for the entire West, as well as for individual states, are available at: <https://www.wcc.nrcs.usda.gov/gis/snow.html>. Updates can also be obtained via the Interactive Map, available at: https://www.wcc.nrcs.usda.gov/snow/snow_map.html.

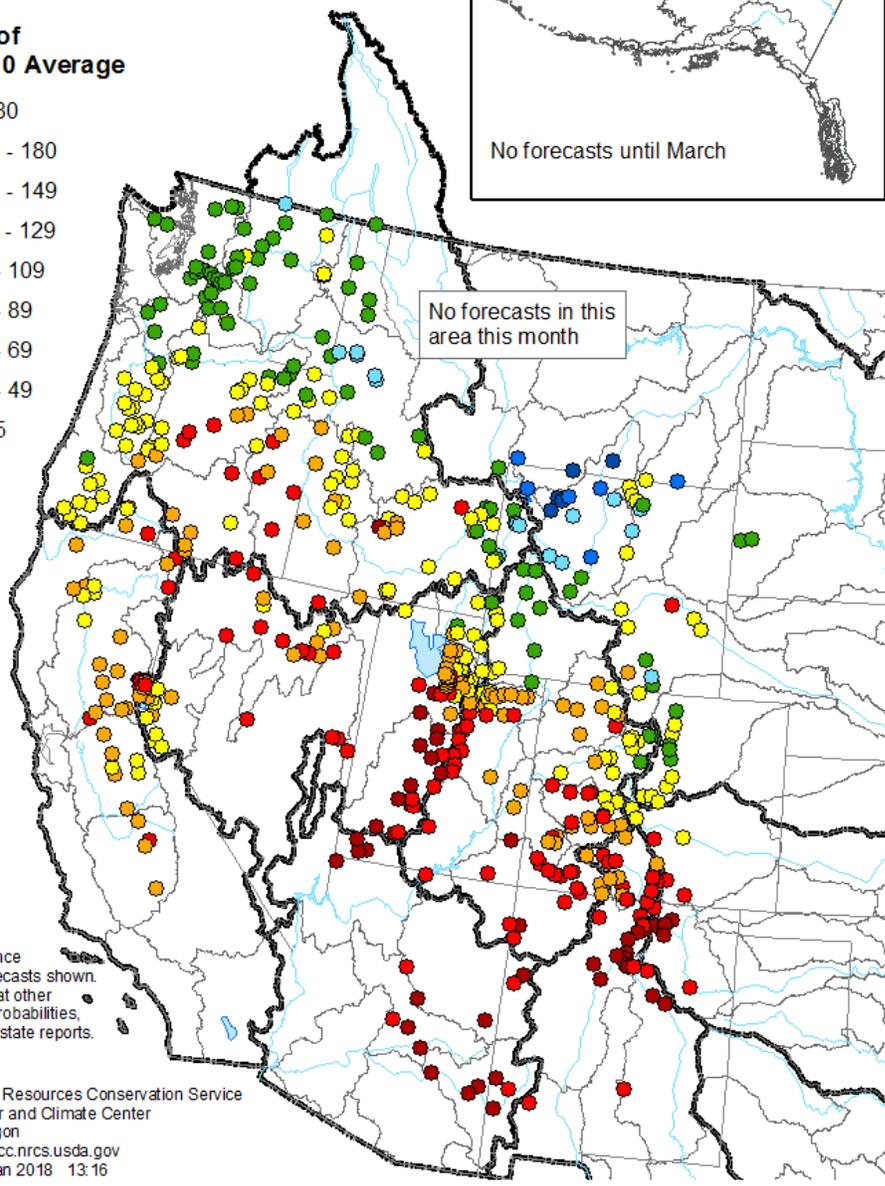
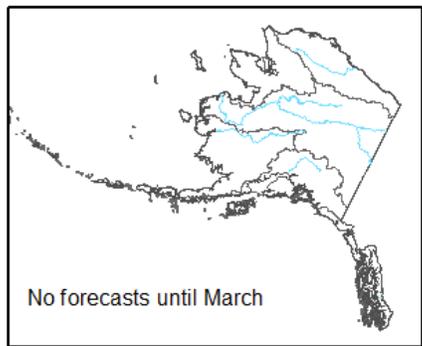
Streamflow Forecasts

[Streamflow forecasts](#) reflect the snowpack distribution, being below average over a majority of the West but near to above average in the northern parts of the region. Forecasts are exceptionally low in the Southwest and Great Basin regions.

Spring and Summer Streamflow Forecasts as of January 1, 2018

Percent of 1981-2010 Average

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25



50% exceedance probability forecasts shown. For forecasts at other exceedance probabilities, see individual state reports.

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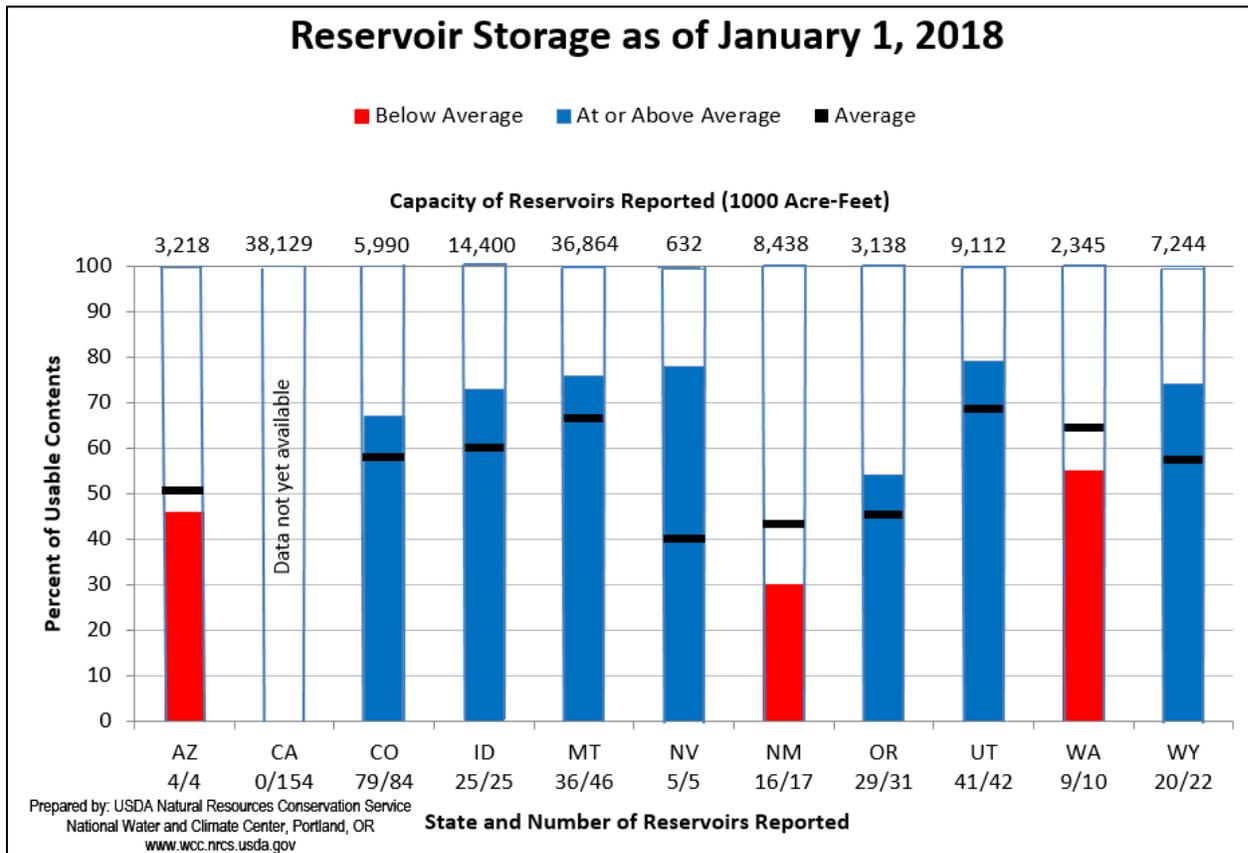
Trends in streamflow forecasts in basins for which daily water supply forecast models are available can be followed at: https://www.wcc.nrcs.usda.gov/wsf/daily_forecasts.html

Reservoir Storage

[Reservoir levels](#) are currently above average in most western states, with only Arizona, New Mexico, and Washington being below average.

Further data and charts are available at: <https://www.wcc.nrcs.usda.gov/wsf/wsf-reservoir.html>

Data for California are summarized at: <http://cdec.water.ca.gov/cgi-progs/reservoirs/STORSUM>



State Reports

Click a state name to view the full report

Alaska: Winter started both warmer and wetter than typical. As a result, snowpack started with a roar in cooler Interior locations and a whimper in warmer coastal areas. This basic trend continues into January, with Interior Alaska having snowpacks ranging from normal to over 200% of median in many locations. Southeast and Southcentral Alaska, in contrast, have much below normal snowpacks in most locations. Many sites in these regions are reporting only approximately half of normal snowpack, though some local areas and higher elevation sites have normal or above normal snowpacks.

Arizona: It has been a very dry start to the snow season, with much of the state having multiple months with no measurable precipitation. Snowpack ranged from 0% (Verde Basin) to 6% (Upper Gila Basin) of median.

California:

Colorado: Colorado has generally experienced above normal temperatures and below normal precipitation and snowpack accumulation during the first three months of the water year. Statewide

snowpack is near record low levels at 54% of median. The northern mountains of Colorado have received substantially more snow than those in the south but are still holding well below normal amounts, with the most plentiful snowpack being in the South Platte basin at 83% of median. On the low end, the combined San Miguel, Dolores, Animas, and San Juan basins in southwest Colorado have only 21% of median snowpack, and the Rio Grande has only 29%. Water supply forecasts generally reflect these spatial trends in snowpack, and there are currently no streams in the state forecast to have above average April-July streamflow volumes at the 50% chance of exceedance.

Idaho: The good news for Idaho water users is that last year's high snowpacks and runoff primed the hydrologic system and has kept rivers and springs flowing above average well into this fall and early winter.

Montana:

Nevada: The bad news is the January 1 snowpack is grim, only 26-60% of median across Nevada. Many SNOTEL sites are measuring one of the six worst snowpacks since the sites were installed around 1980. The good news is reservoir storage from last winter's banner runoff is excellent. Many key reservoirs in northern Nevada are near 80% of capacity, far above normal for this time of year. There is still time for Nevada's snowpack to get back to normal by spring, but with each passing week those chances grow slimmer.

New Mexico: The 2018 water year is off to a very disappointing start across New Mexico. To compare this water year to the last several makes the preceding years look great by comparison. With statewide snowpack as of January 1 totaling in at just 4% of median, New Mexicans are holding out that late winter snows will help the state catch up.

Oregon:

Utah: Snowpacks are below normal across the entire state of Utah. Basically everything south of Nephi is in the 5% to 20% of normal range. The Bear River and the north slope of the Uintas are in the 80% range, with the Uinta Basin, Provo, and Weber in the 50% to 60% range. December precipitation across the state was well below normal, ranging from 15% across southern Utah to near 80% of average in the north. This brings the seasonal accumulation (Oct. - Dec.) to 51% of average. This is exceptionally dry, more so in the south, a little better in the north, coincident to La Niña conditions. Reservoir storage is in excellent condition at 72% of capacity statewide compared to 49% of capacity last year.

Washington: Another record hot summer but wet fall lead into what appears to be a typical La Niña pattern for Washington, with warm wet conditions across the state. It has been warmer in the southern regions but cooler in the north, where the jet stream brought adequate snowfall to help many ski areas open by or before the Thanksgiving weekend.

Wyoming:

For More Information

The USDA-NRCS National Water and Climate Center website provides the latest available snowpack and water supply information. Please visit us at: <https://www.wcc.nrcs.usda.gov>