

# Western Snowpack and Water Supply Conditions

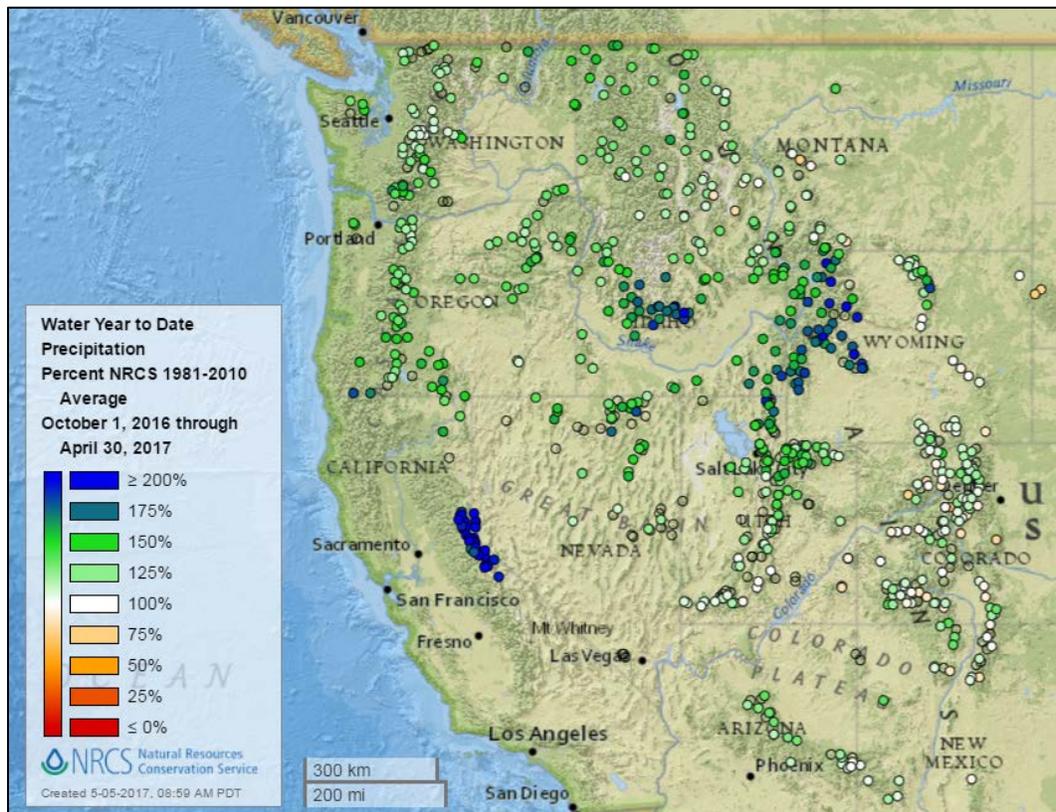
## May 2017

### Overview

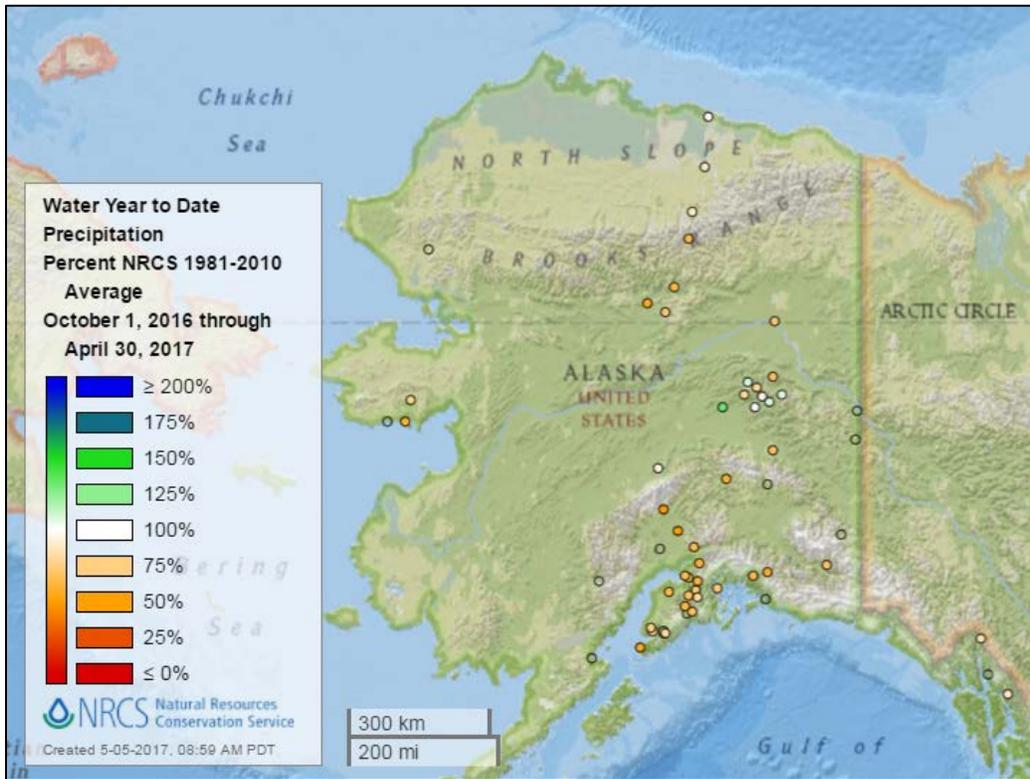
This report summarizes Snow Telemetry (SNOTEL) and snow course network data, streamflow forecasts, and reservoir storage data collected and analyzed by the [National Water and Climate Center](#).

**Precipitation** for the water year-to-date (beginning October 1, 2016) has been near to well above average throughout the West except in Alaska, where much of the state has been below average. **Snowpack** is well above median over most of the West except areas in the Southwest experiencing seasonal snowmelt. Most of Alaska except the Interior has below median snowpack. **Streamflow forecasts** reflect the snowpack pattern, with most of the West expecting near to well above average streamflow. Southcentral Alaska and scattered areas in Colorado, New Mexico, and southern Utah are expecting below average streamflow. **Reservoir storage** remains near or above average everywhere except Idaho, New Mexico, and Washington.

### Water Year-To-Date Precipitation



[Precipitation for the 2017 water year-to-date](#) maintains the pattern of near to well above average over the entire West, as has been the case for most of the year. Particularly wet areas include the Sierra in California, central Idaho, and western Wyoming. The month of April saw above average precipitation throughout most of the region (except in the Southwest), continuing the generally wet character of this water year.



[Precipitation in Alaska for the 2017 water year-to-date](#) remains generally below average except at a group of sites in the Interior near Fairbanks, which are near average. The month of April was quite dry throughout the state.

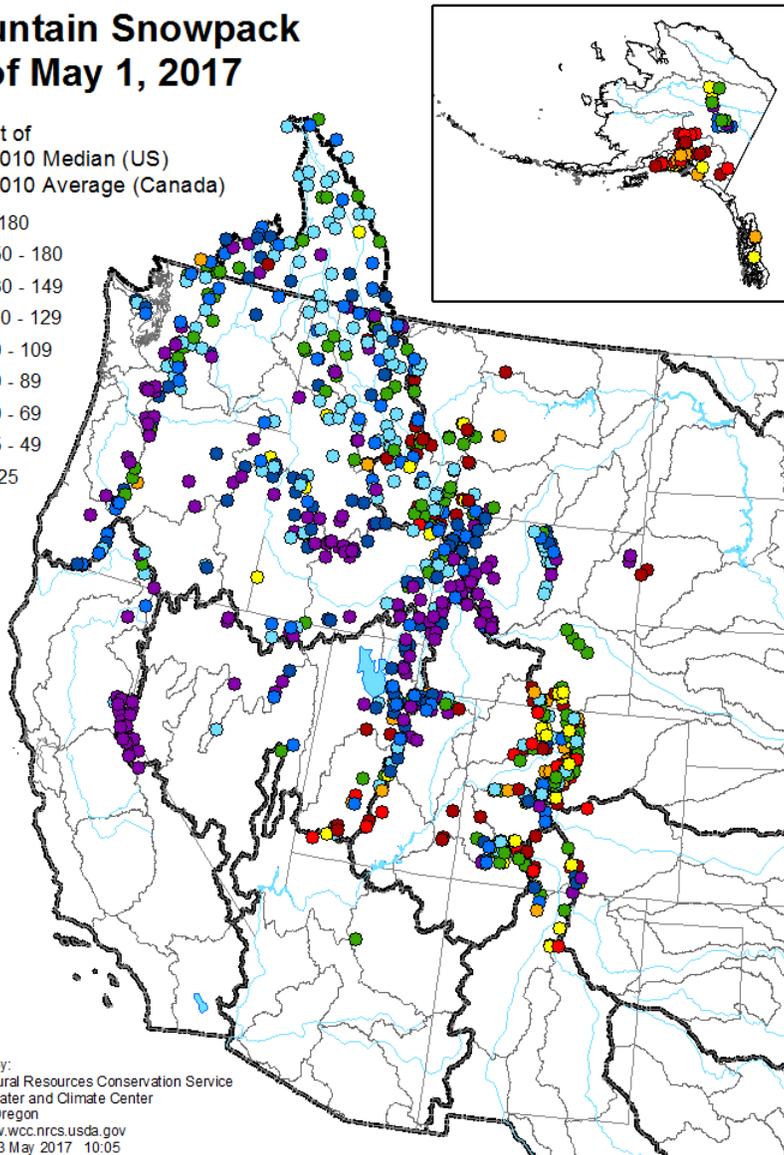
Basin-filled maps containing monthly and daily updates of SNOTEL precipitation are available at: <https://www.wcc.nrcs.usda.gov/gis/precip.html>

## Snowpack

### Mountain Snowpack as of May 1, 2017

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 May 1](#) in the western U.S. and the Columbia Basin in Canada is predominantly above median throughout the region. The Sierra, central Idaho, northern Utah, and western Wyoming are even experiencing record or near-record snowpack for the date. A wet April has contributed to this picture, either by adding to the snowpack or by slowing down the spring melt. The snowpack in the Southwest is essentially gone, as is typical for this time of year, and areas in Colorado and southern Utah also show signs of seasonal reductions in snowpack.

In Alaska, snowpack remains below median at most sites except in the Interior, which is near median.

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>

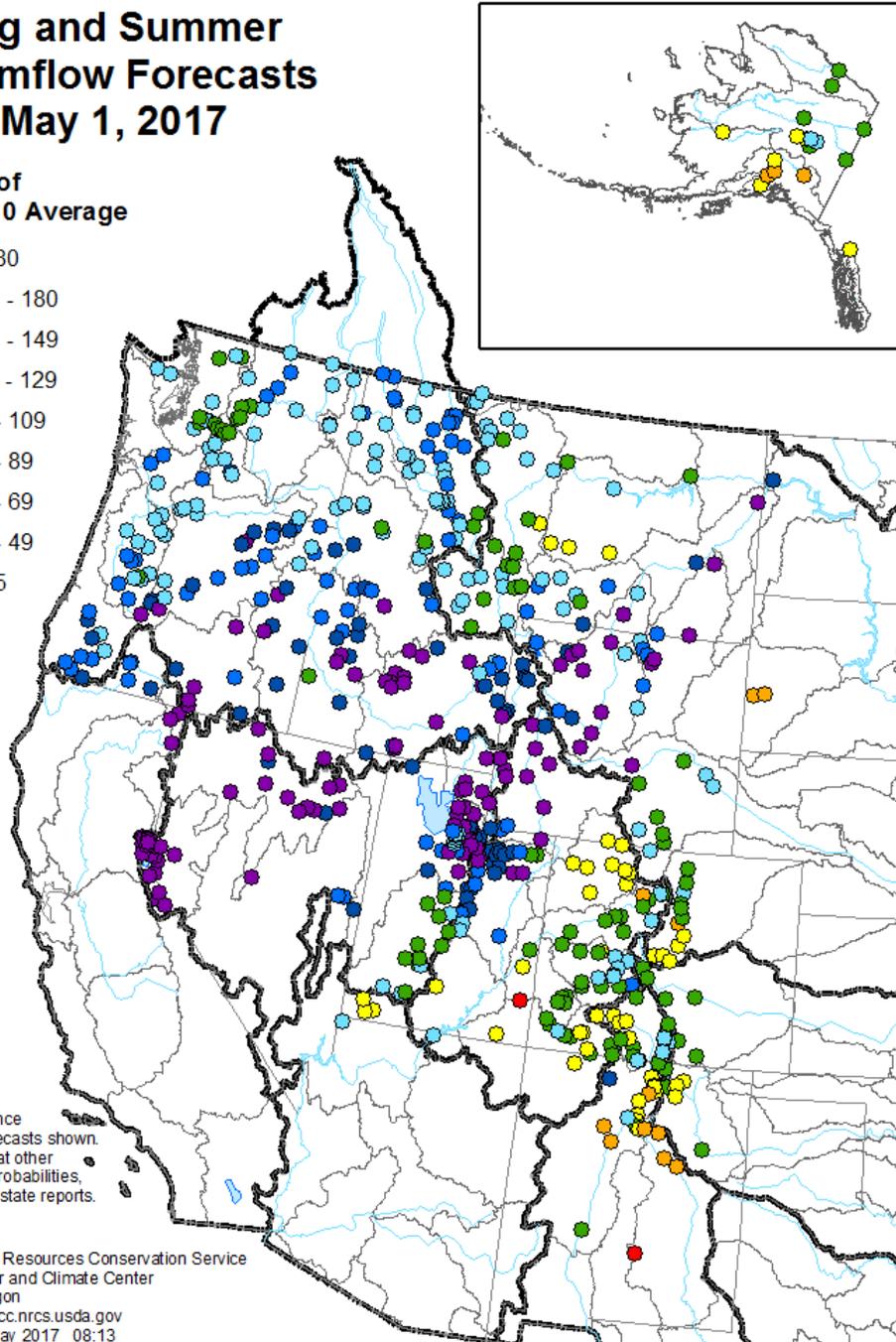
## Streamflow Forecasts

[Streamflow forecasts](#) are near to well above average in most of the West, reflecting the snowpack patterns. Very high flows are expected in a west-to-east band from the Sierra to northern Nevada, southern Idaho, northern Utah, and western Wyoming. The only major areas expecting below average streamflow are scattered in Colorado, New Mexico, and southern Utah. In Alaska, southern areas are expecting below average streamflow, whereas the Interior and northern areas are near average.

### Spring and Summer Streamflow Forecasts as of May 1, 2017

Percent of 1981-2010 Average

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



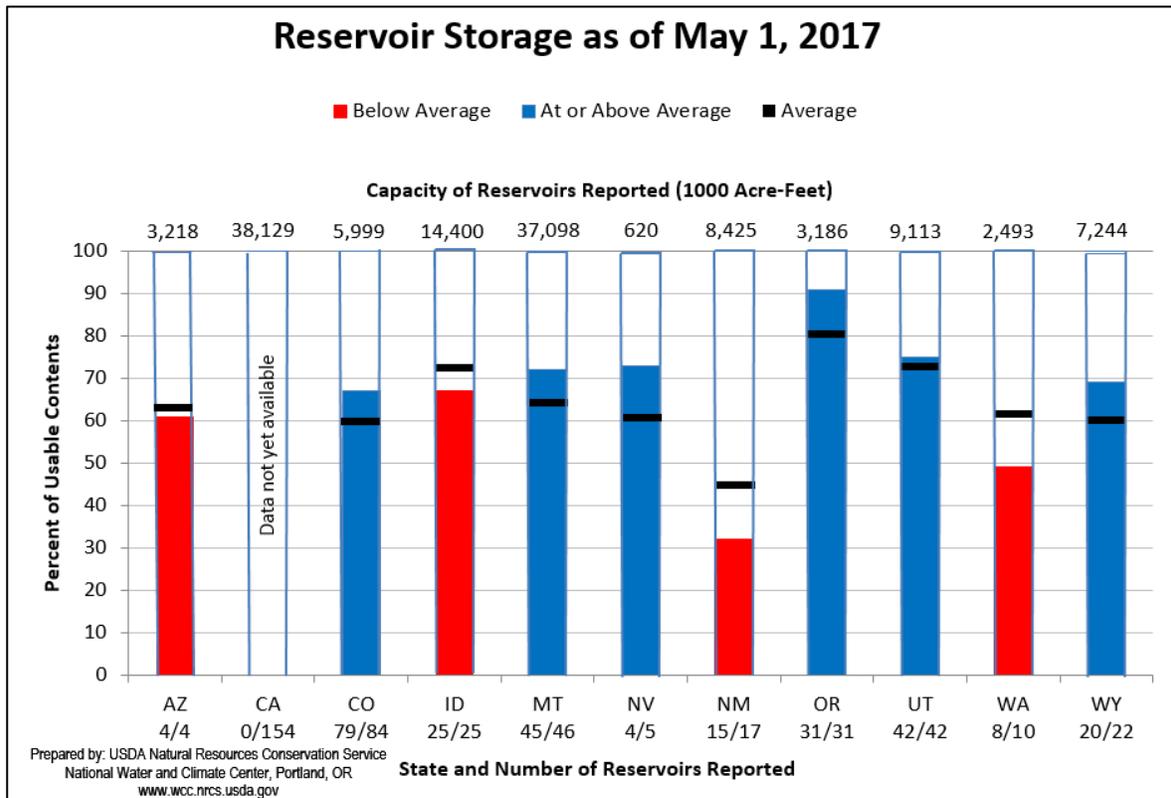
Trends in streamflow forecasts in basins for which daily water supply forecast models are available can be followed at: [https://www.wcc.nrcs.usda.gov/wsf/daily\\_forecasts.html](https://www.wcc.nrcs.usda.gov/wsf/daily_forecasts.html)

## Reservoir Storage

[Reservoir levels](#) remain near or above average in all but three states -- Idaho, New Mexico, and Washington, where they are somewhat below average for the date.

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:](#)

[Arizona:](#) Spring runoff in the Salt-Verde river system has been above normal, and as a result the Salt-Verde reservoir system is now at 75% of capacity as compared to only 56% of capacity one year ago.

### [California:](#)

[Colorado:](#) Peak snowpack in the southern half of the state reached to over 120% of typical values. Northern basins saw lesser peaks this year -- yet all still decent -- with only the North Platte Basin peaking below normal. Although impressive midwinter snowpack numbers dwindled this spring, streamflow forecast projections have returned to a range bracketing normal, from 70% to 140%, with a few outliers on each end.

### [Idaho:](#)

**Montana:** Abundant precipitation this water year, combined with well above normal snowpack for May 1, led to water supply forecasts that are above average for the May-July time period for many river basins. One central Montana river basin could experience below average flows due to lack of snowfall this year.

**Nevada:** 2017 continues to set records in northern Nevada. April brought record precipitation to the Sierra. May 1 snowpacks are well above average to record breaking. Summer streamflow forecasts predict record-breaking volumes for the Truckee and Carson rivers. Flooding remains a concern particularly for the Carson, Walker, and Humboldt rivers.

**New Mexico:** Late April storms elevated snowpack levels to above the average in the northern mountains. With melt-out well underway, these storms coupled with above average precipitation at just the right time promise above average streamflow forecasts this spring.

**Oregon:** Water year 2017 has not let up on Oregon. April marked the fifth month in a row of above average precipitation throughout the state. Snowpack in low- and mid-elevation locations peaked well above normal, while high elevation snow monitoring sites continued to accumulate snow. The ample moisture received this season not only provided the mountains with deep snow and valleys with unusual amounts, but also contributed to above average streamflow and reservoir levels for this time of year. These conditions have boosted confidence that streamflows will be above average for the summer water supply season and that water users will likely benefit from adequate water supplies. In March, the U.S. Drought Monitor removed all drought status from the entire state for the first time since 2011.

**Utah:** Streamflow has been well above normal across the state thus far in the runoff season. In the southeast, snowpacks have melted out, and flows will soon be in recession. In northern Utah, high elevation snowpacks are just beginning to melt, and flows are already exceptionally high with the majority of flow yet to come.

**Washington:** The May 1 statewide snowpack readings were 140% of normal, up from 121% last month. Due to above average precipitation and below normal temperatures in April, streamflow forecasts for May-September have seen significant increases in all basins from last month.

**Wyoming:** The snow water equivalent across Wyoming is above the median on May 1 at 137%. The year-to-date precipitation average for Wyoming basins is now at 139%, varying from 78-188% of average. Monthly precipitation varied from 97-241% of average for an overall average of 150%. Basin reservoir levels for Wyoming vary from 59-194% of average for an overall average of 126%. Forecast runoff varies from 52-267% of average across the Wyoming basins for an overall average of 175%.

## 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>