



Natural Resources Conservation Service
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Western Snowpack and Water Supply Conditions May 2014

Overview

Precipitation for the month of April over the northern half of the West has been generally near normal, with the southern half of the West continuing its dry pattern seen all winter. Alaska has had a very dry April.

Snowpack retains the sharp contrast between northern and eastern parts versus southern and western parts of the West, with the former being well above normal and the latter being well below normal. Streamflow forecasts closely follow the snowpack pattern. Reservoir storage for all states except Montana is below normal for this time of year.

April Precipitation

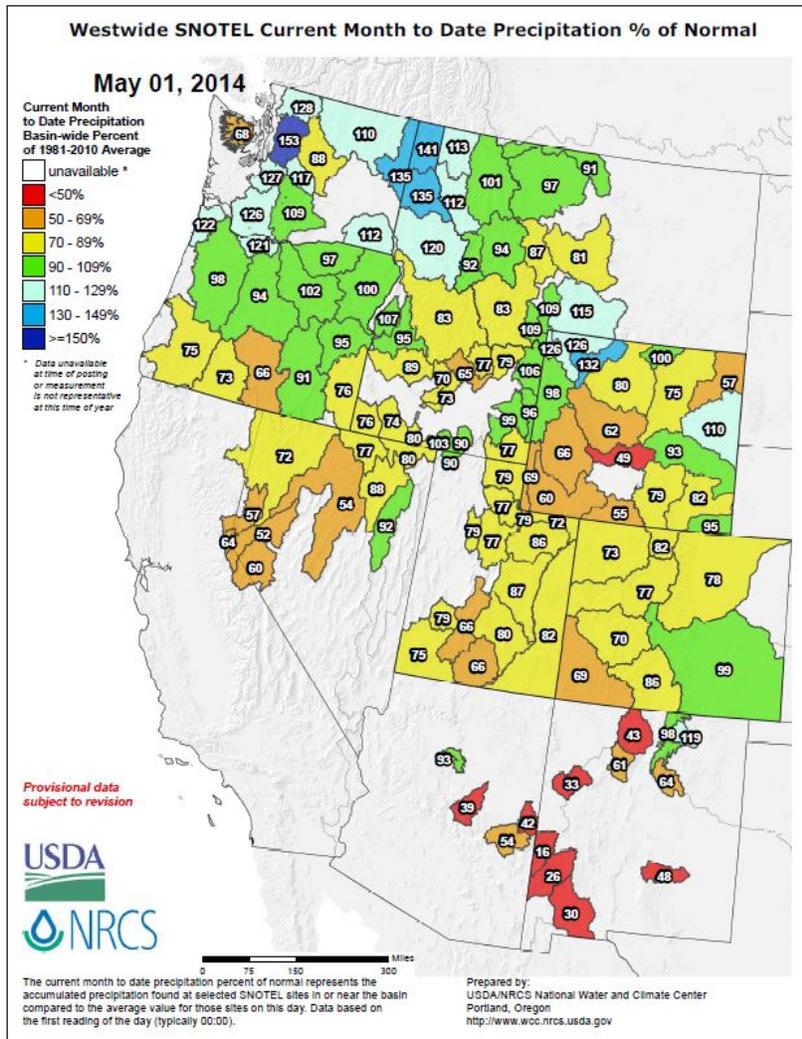


Figure 1: [Precipitation for April](#) was generally near or somewhat below normal over much of the northern half of the West, with a few areas above normal, particularly in Washington and northern Idaho.

Below normal precipitation occurred in the southern half of the West, with Arizona and New Mexico continuing to receive much below normal precipitation.

Click on maps to enlarge and update

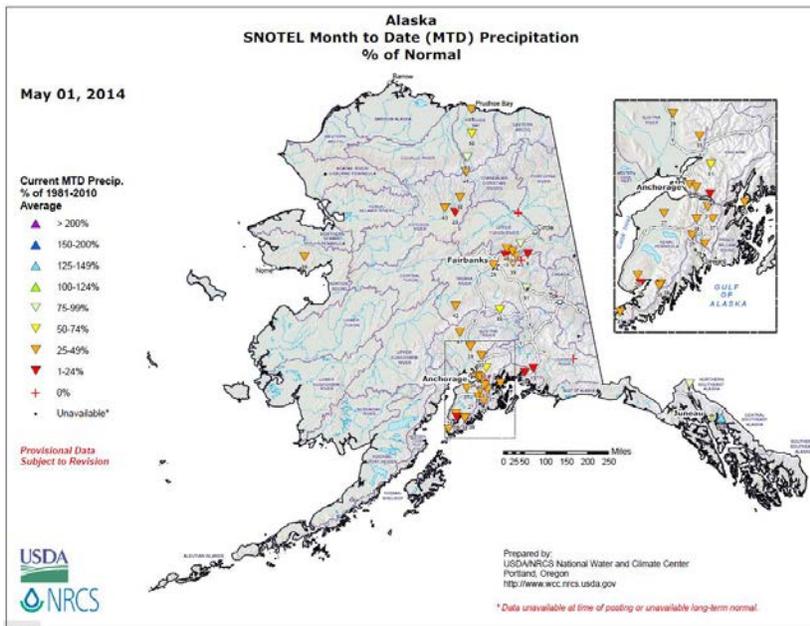


Figure 2: Most of Alaska received well below normal [precipitation during April](#).

Water Year-To-Date Precipitation

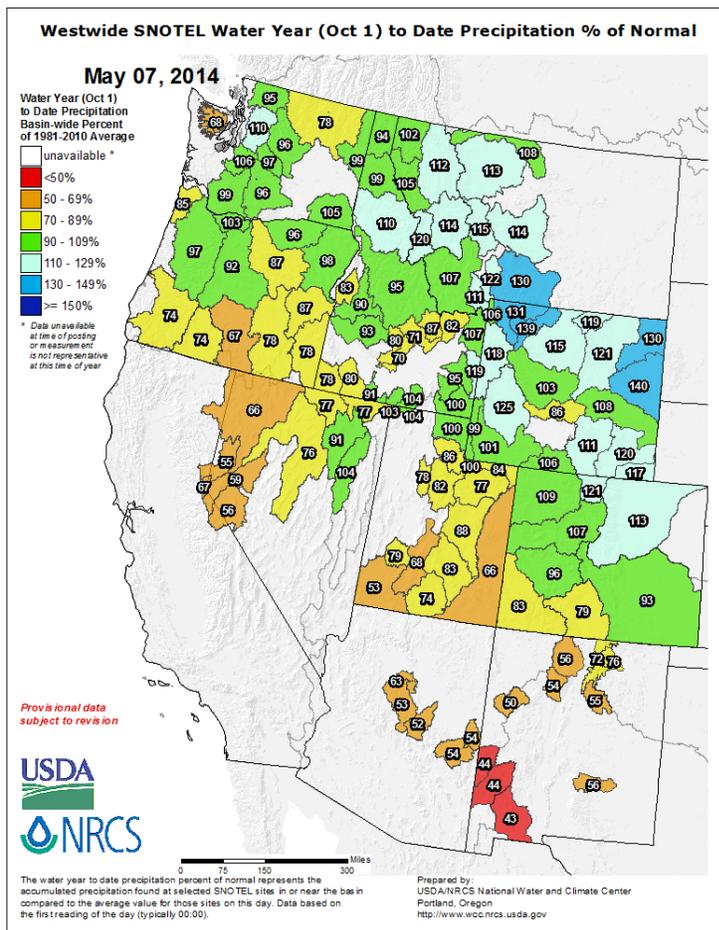


Figure 3: [Precipitation for the 2014 water year-to-date](#) reflects the pattern of wetness and dryness that has been persistent during this water year.

A northwest-to-southeast demarcation running through Oregon, southwestern Idaho, northern Utah, and southwestern Colorado separates areas receiving near to above normal precipitation to the north and east from those areas receiving below to well below normal precipitation to the south and west.

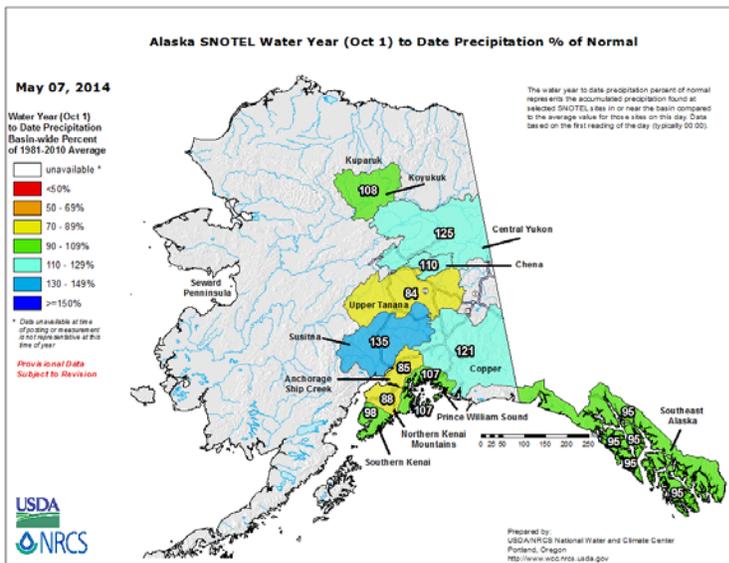


Figure 4: Precipitation in Alaska for the 2014 water year-to-date is near to above normal in most areas of the state.

Maps containing monthly and daily updates of SNOTEL precipitation are available at: <http://www.wcc.nrcs.usda.gov/gis/precip.html>

Snowpack

Snowpack as of May 1 (Figure 5) in the western U.S. and the Columbia Basin in Canada maintains the sharp contrast between the north and east regions versus the south and west regions, as has been the case all year. Snowpack is much above normal in most of northern Idaho, the Columbia Basin in British Columbia, Montana, Wyoming, and northern Colorado. Snowpack is near normal in Washington, northeastern Oregon, central Idaho, and northern Utah. Snowpack is well below normal in most of Oregon, California, Nevada, southern Utah, southwestern Colorado, and northern New Mexico, whereas snowpack is essentially gone in most of Arizona. Snowpack in most areas of Alaska is below normal.

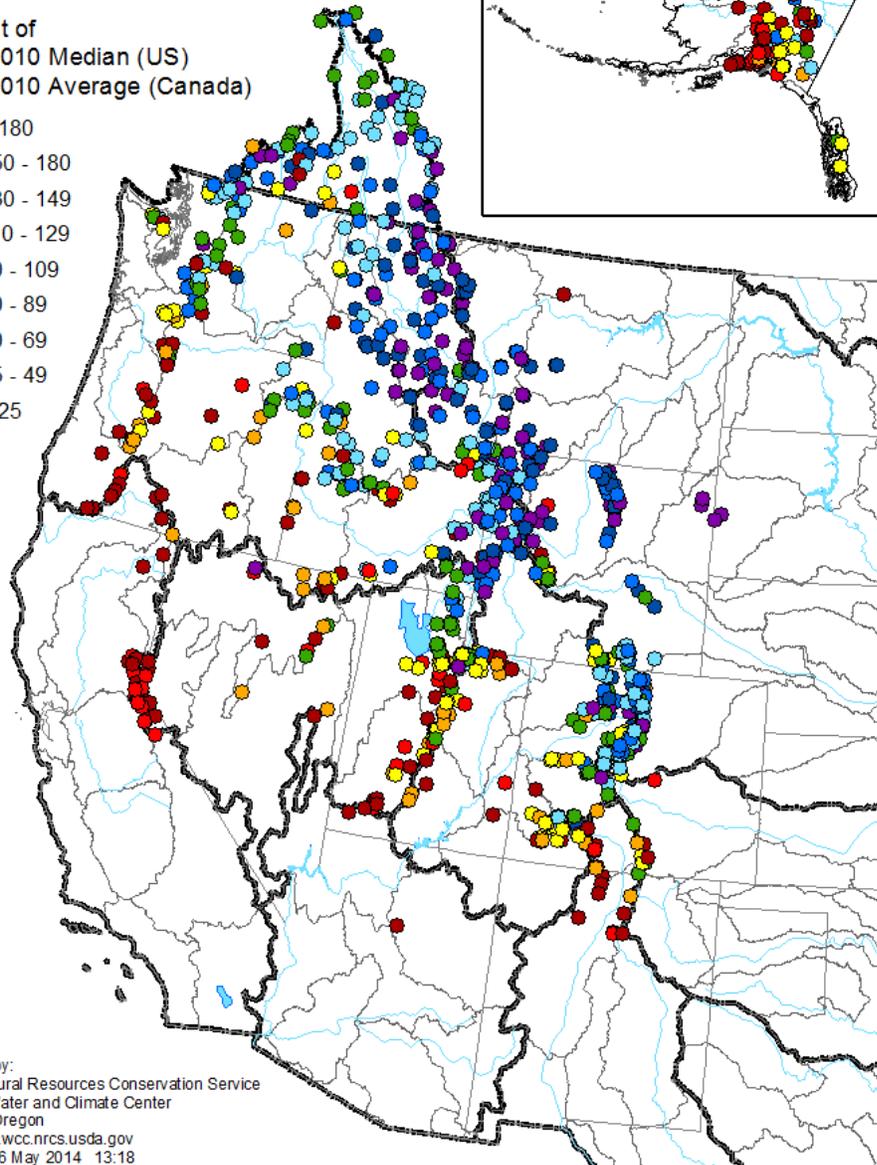
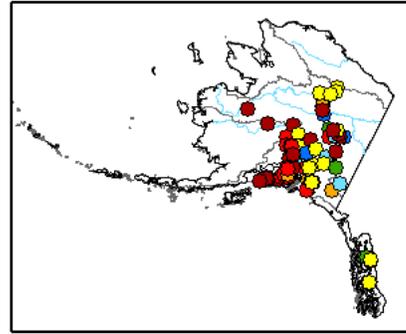
Maps with daily updates of the snowpack (SNOTEL data only) for the entire West, as well as for individual states, are available at the following link:

<http://www.wcc.nrcs.usda.gov/gis/snow.html>

Mountain Snowpack as of May 1, 2014

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



Prepared by:
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Figure 5: [Snow water equivalent](#) at SNOTEL sites and snow courses

Streamflow Forecasts

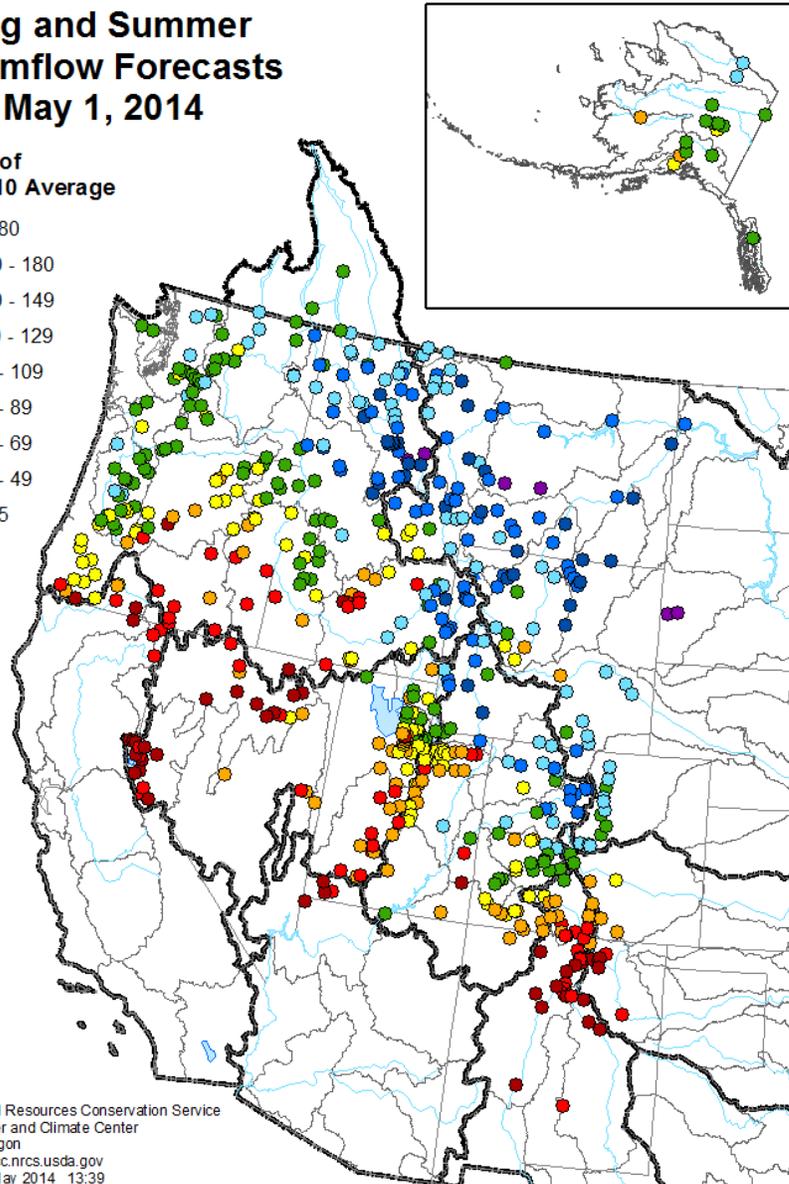
Because the snowmelt season is now underway, streamflow forecasts (Figure 6) represent the remainder of the spring and summer runoff season. Forecasts still reflect a similar pattern as snowpack, with the sharp contrast between south and west versus north and east of the Rocky Mountains that has characterized this water year.

Streamflow forecasts are above normal in northern Idaho, Montana, Wyoming, and northern Colorado. Near normal forecasts have been issued for Washington, northern Oregon, central Idaho, northern Utah, and western Colorado. Forecasts are well below normal in southern Oregon, California, Nevada, southern Utah, southwestern Colorado, and northern New Mexico. No forecasts are issued this month in Arizona. Alaska streamflow forecasts are mostly near or above normal except for the southcentral and southwest parts of the state.

Spring and Summer Streamflow Forecasts as of May 1, 2014

Percent of 1981-2010 Average

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



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Figure 6: [Streamflow forecasts](#)

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

Reservoir Storage

Westwide charts, graphs, and tables (<http://www.wcc.nrcs.usda.gov/wsf/wsf-reservoir.html>) show that reservoir levels are below normal (as a percent of capacity) for all states with the exception of Montana and near normal for Colorado (Figure 7). Data for California are available [here](#).

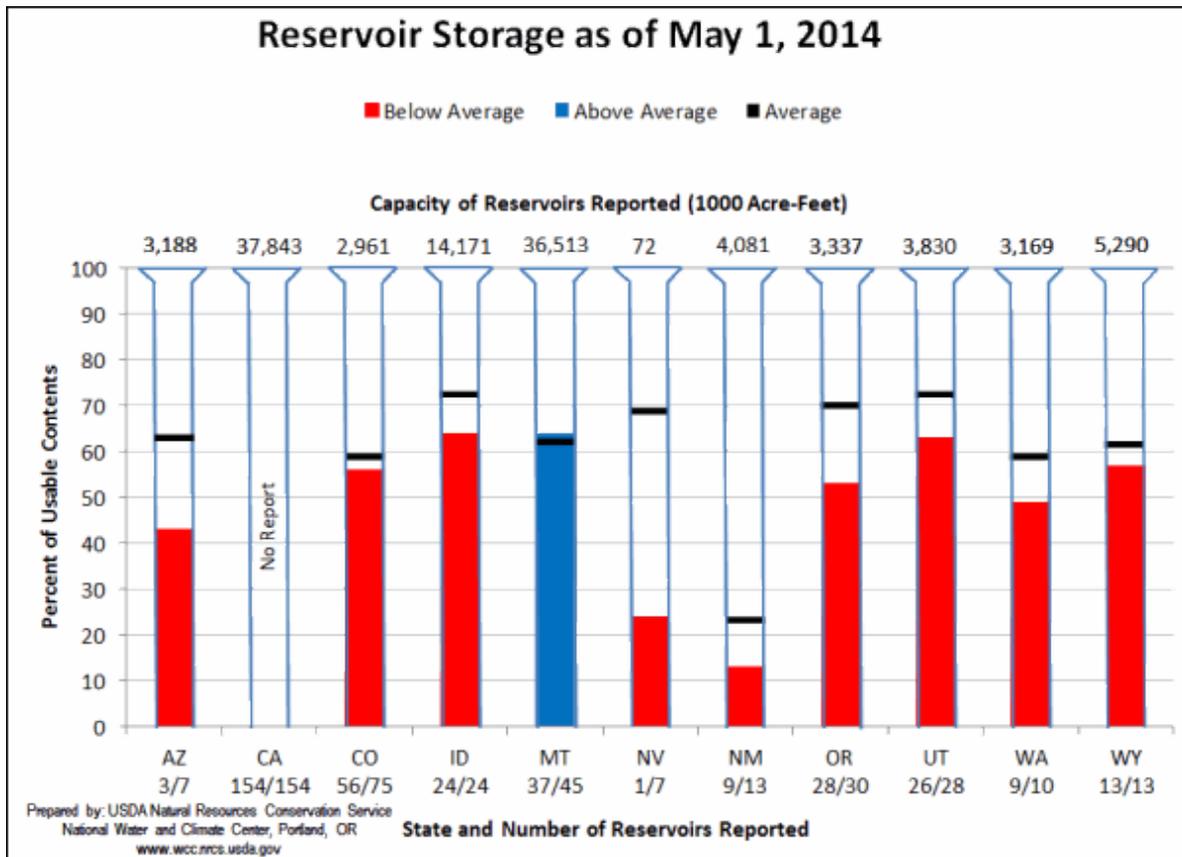


Figure 7: [Reservoir Storage](#)

State Reports

Click a state name to view the full report

Alaska: For the second consecutive month, most of Alaska received half of normal precipitation. The lack of precipitation, coupled with a warm second half of April, greatly diminished snowpacks across the state. Most of the state has below to greatly below normal snowpacks. The exceptions are the Arctic, the western Alaska Range, and the northern half of Southeast Alaska.

Arizona: No report for May (April is the last Water Supply Outlook Report).

California: Drought continues as the rainfall season comes to a close.

Colorado: The month of April yielded below average precipitation in all watersheds but affected year-to-date precipitation and snowpack totals little, rounding out the statewide snowpack on May 1 at 107% of median.

Idaho: Conditions vary greatly throughout the state, from very low snowpack in the southwest to near record high snowpack in the east and north. As a result, some areas will have short water supplies, while some areas may have too much water with high runoff being a concern.

Montana: Snowpacks are generally above to well above seasonal normal peak conditions and are also starting to persist and retain snowpack later than normal, at this point one to two weeks in some watersheds. With these conditions, the National Weather Service has highlighted the increased likelihood of flooding as a result of snowmelt.

Nevada: Streamflow forecasts remain low, as a relatively dry April did little to change the hydrologic outlook for Nevada.

New Mexico: Continued warm, dry, and windy conditions keep New Mexico snowpack extremely low, with runoff forecasts reflecting these dry conditions.

Oregon: With the exception of northeastern Oregon, the state-wide snowpack remained below normal all winter. Peak snowpack levels for the 2013/2014 winter were 20 to 60% below normal peak levels for most basins. As of May 1, snow measurement sites in southern Oregon continue to set new record lows for snowpack levels. As a result, summer streamflows are expected to be below average and water shortages are likely for many parts of Oregon.

Utah: Small snowpacks and early melt are yielding exceptionally low runoff in much of southern Utah. Northern Utah is expecting below to near normal runoff.

Washington: The May 1 statewide SNOTEL snowpack readings were 107% of normal but vary across the state. April showers brought extreme precipitation variation, with monitoring stations reporting everything from nearly nothing to twice the normal rainfall. Plenty of precipitation and cool temperatures again helped increase streamflow forecasts by 5-20% this month.

Wyoming: See full state report.

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: <http://www.wcc.nrcs.usda.gov>