

Oregon Water Supply Outlook as of June 6th, 2016

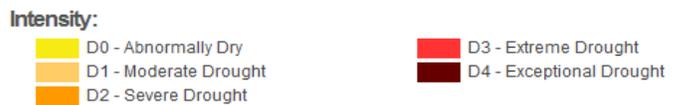
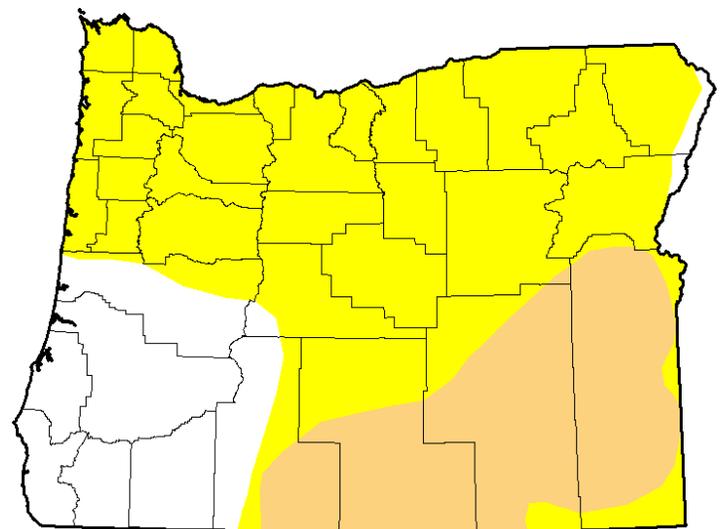
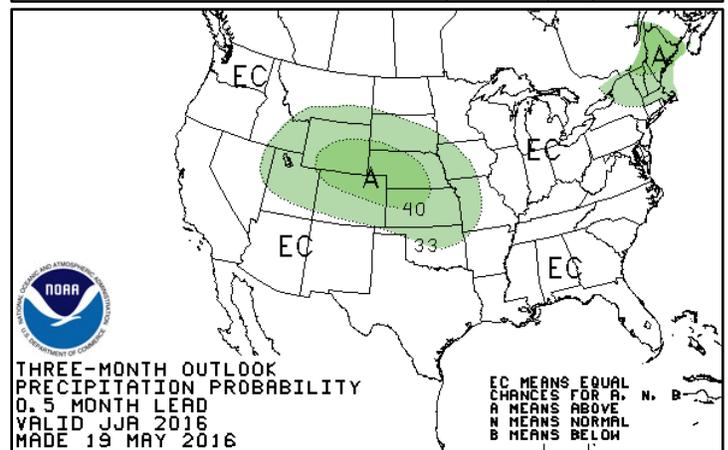
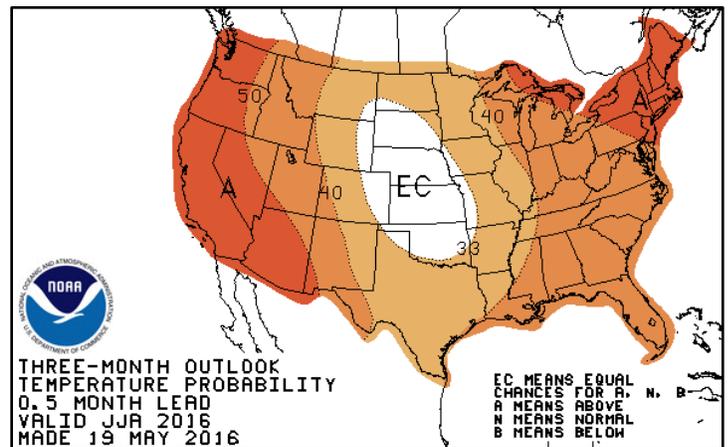
The water supply forecast for the summer of 2016 is below-average for much of Oregon, although some basins in southwestern and north-central Oregon are forecast to be near average. Water supply volume forecasts for April - September have trended lower since March due to earlier-than-normal snowmelt and below-average spring precipitation.

Refer to the sections below and the links provided for details regarding snowpack, precipitation, reservoir conditions, and water supply forecasts for individual basins.

NOAA's climate outlooks for June through August indicate above-average temperatures are likely through the summer. Summer precipitation totals are likely negligible in their effect on water supply conditions. El Niño conditions have transitioned to ENSO-neutral, and there is a high likelihood of La Niña conditions for the fall and winter of 2016-17. For more about seasonal outlooks from the Climate Prediction Center, visit www.cpc.ncep.noaa.gov.

Precipitation this past winter alleviated drought conditions for much of the state, especially in southern Oregon, where multi-year drought persisted through 2015. However, the warm and dry spring has renewed concerns about potential drought impacts this summer, especially low streamflow on rivers with no reservoir regulation. Streamflow for many rivers is as low or even lower than this time last year. The U.S. Drought Monitor highlights continued Moderate Drought (D1) conditions for south-central and southeast Oregon, with Abnormally Dry (D0) for most of northern Oregon. For more details, visit drought.gov and www.oregon.gov/owrd/pages/wr/drought.aspx.

This is the final water supply outlook for the season. Look for drought information summaries to be issued on a monthly basis starting in July given the likely persistence of drought conditions into the summer.



Drought Monitor for Oregon, May 31st, 2016

Snowpack across Oregon

Seasonal snowpack peaked near average in March, but as of early June, the only snow remaining was on the highest peaks in the Cascades and Willows. The snowpack melted very rapidly, with most of it gone by early May.

Refer to the following links for more information:

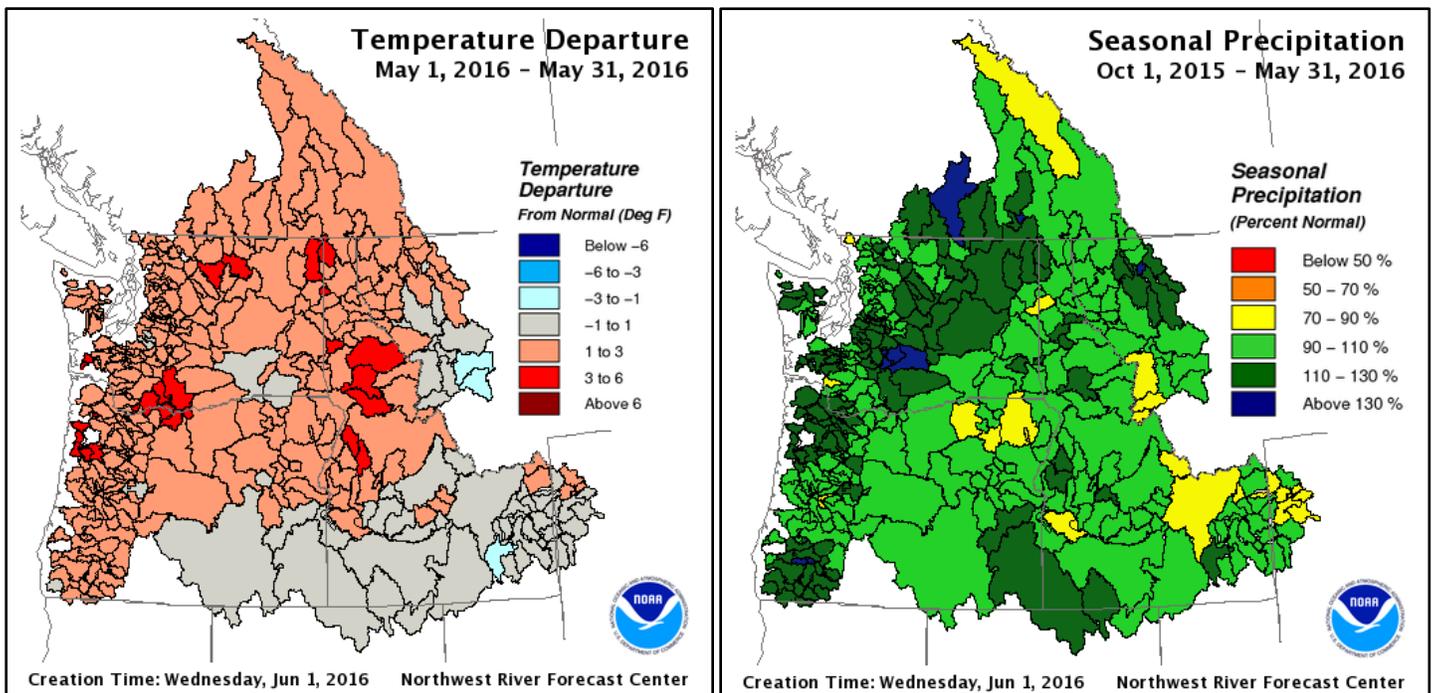
NOAA's National Weather Service - Northwest River Forecast Center: www.nwrfc.noaa.gov/snow/

USDA - Natural Resources Conservation Service: www.nrcs.usda.gov/wps/portal/NRCS/main/or/snow/

Precipitation and Temperatures across Oregon

2016 water year precipitation is above-average across the state, especially so in western and southeastern Oregon. Precipitation totals (October 1 through June 1) range from 90 to 115 percent of average. Monthly totals for May were only 30 to 50 percent of average in western Oregon and 70 to 90 percent of average in central and eastern Oregon, and spring rainfall totals have generally been below-normal, especially for western Oregon.

For the water year, temperatures have been above-average every month, except November and December, and have been notably warm since February. Temperatures in May were 1 to 3 degrees above average, with a wide range of days much-above and much-below average.



Visit the following links for more details on precipitation and temperatures.

NOAA's National Weather Service - Northwest River Forecast Center
www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php

NOAA's National Weather Service - California Nevada River Forecast Center (Klamath basin only)
www.cnrfc.noaa.gov/water_resources_update.php

Western Region Climate Center www.wrcc.dri.edu/anom/ore_anom.html

Reservoirs

Reservoir storage increased significantly during March and April but didn't change much in May. As of early June, reservoirs have 45 to 95 percent of average storage for this time of year. Many reservoirs have begun releases to support irrigation districts and in-stream requirements downstream. Owyhee, the largest irrigation reservoir in Oregon, 62 percent of average storage as of early June and has started drawdown to support irrigation requirements downstream in eastern Oregon. Most flood control reservoirs in western Oregon did not fill to full-pool levels due to the dry weather in April and May.

Reservoir data is provided by the Natural Resources Conservation Service, the Bureau of Reclamation, and the US Army Corps of Engineers.

Visit the following links for more reservoir information:

www.wcc.nrcs.usda.gov/basin.html

www.usbr.gov/pn/hydromet/select.html

www.nwd-wc.usace.army.mil/nwp/teacup/willamette/

Current and Forecast Streamflow

Observed streamflow in May was near-average in central and eastern Oregon and below-average in western Oregon, especially so for coastal rivers in northwestern Oregon, where flows in May 2016 were very similar to the low conditions in May 2015. Visit waterwatch.usgs.gov for more details on observed streamflow.

April-September runoff volume forecasts for Oregon basins range from 30 to 90 percent of average, with the highest values generally in central and southwestern Oregon. Water supply forecasts have decreased significantly since March. Particular areas of concern for low summer streamflow include north coastal rivers, the Willamette basin, and some rivers in northeast Oregon.

The forecast for the Columbia River at The Dalles, which is a good index of conditions across the Columbia basin, is 93% of average for April - September, a decrease of 6% from the forecast in early May.

Visit the following links for more details on basin-scale water supply forecasts:

NOAA's National Weather Service – Northwest River Forecast Center

www.nwrfc.noaa.gov/ws/

NOAA's National Weather Service – California-Nevada River Forecast Center (forecasts for Klamath Basin)

www.cnrfc.noaa.gov/water_resources_update.php

USDA - Natural Resources Conservation Service

www.wcc.nrcs.usda.gov/wsf/