

Washington State Weekly Drought Monitoring Report

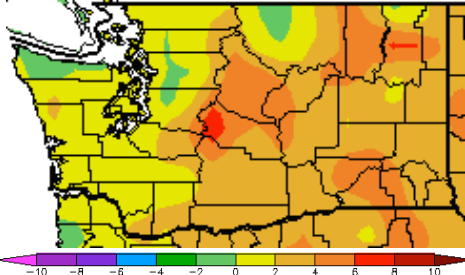
Thursday, May 7, 2015

Issue 4

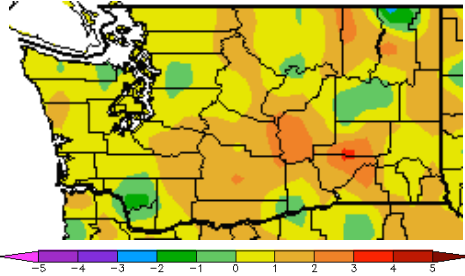
Statewide Overview

Mean Temperature Anomalies (°F)

Weekly (4/29-5/5):



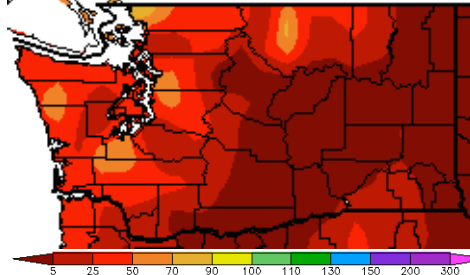
Last 30 days (4/6-5/5):



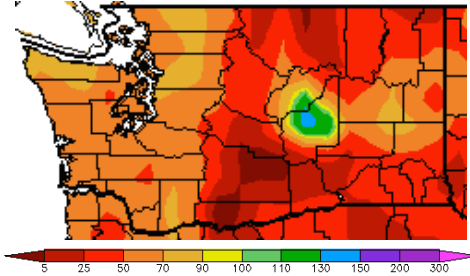
HPRCC

Precipitation Percent of Normal (%)

Weekly (4/29-5/5):



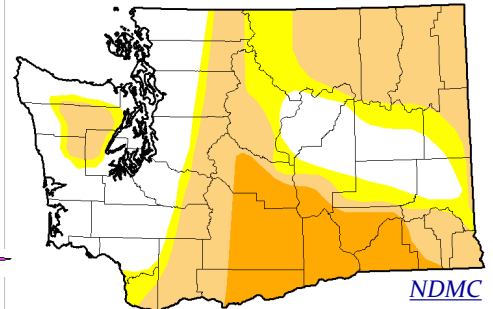
Last 30 days (4/6-5/5):



HPRCC

Drought Monitor, SWE, and streamflow

US Drought Monitor (5/5):



NDMC

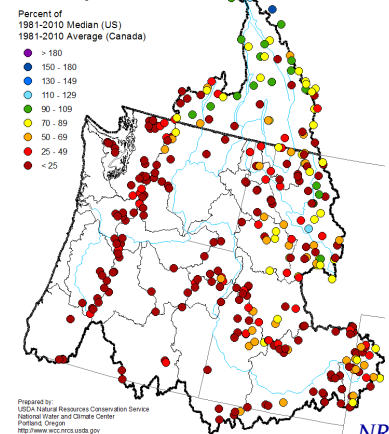
Intensity:

D0 - Abnormally Dry
D1 - Moderate Drought
D2 - Severe Drought

D3 - Extreme Drought
D4 - Exceptional Drought

Snow Water Equivalent (5/1):

Columbia River and Pacific Coastal Basins
Mountain Snowpack
as of May 1, 2015

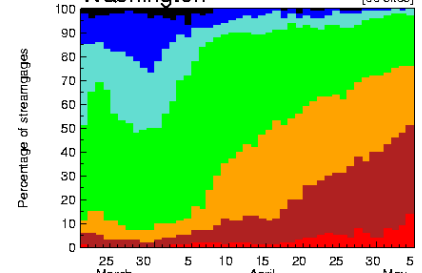


NRCS

Streamflow (5/5):

Last 45 Days

Washington



Explanation - Percentile classes	Low	Below normal	Normal	Above normal	High
<10	10-24	25-75	76-90	>90	
Much below normal	Below normal	Normal	Above normal	Much above normal	

USGS

A snapshot of recent conditions for WA State is shown on this page using statewide temperature, precipitation, and snow water equivalent over varying time frames. Weekly temperature anomalies have been at least 2-4°F above normal for most of central and eastern WA, and within 2°F of normal for western WA though still on the warm side. Little to no precipitation fell in eastern WA over the last week, and the little precipitation that fell on the west side of the Cascade Mountains mainly occurred on 5 May. The drier than normal conditions have persisted for the last 30 days as well, aside from Ephrata in Grant County due to one day of heavy rain showers. Temperatures over the last 30 days are within 1°F of normal for most of the state except for the Lower Columbia Basin where temperatures have been above normal.

This is likely the last week that we'll be showing a snow water equivalent percent of normal map since so many of the stations have already melted out. Not surprisingly, most of the stations in WA have less than 25% of normal SWE as of May 1. A few sites in northern Cascades are between 50 and 89% of normal, but the statewide average is down to 18% of normal. The US Drought Monitor - a federal drought product based largely on hydrometeorological variables - has had a slight expansion of "moderate drought" in Okanogan county to better align with the low snowpack values. Finally, streamflows in WA State over the last 45 days show a continued tendency toward increasing percentages of below normal flows, as represented by the increasing amount of reds and oranges on the USGS plots on the right (~80% on May 5).

Contacts: Karin Bumbaco (kbumbaco@uw.edu)

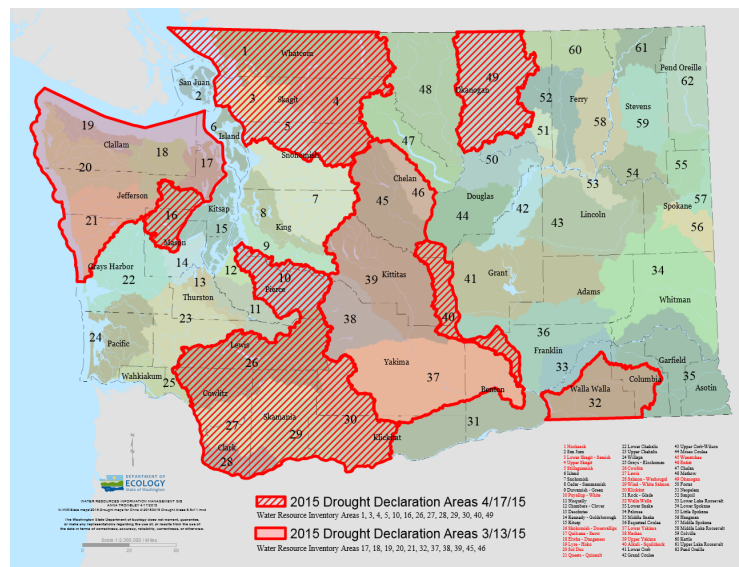
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Drought Declared Areas

The regions of the state that have been declared in drought by Governor Inslee are shown in the plot on the right. State-declared drought now covers 44% of the state. It is important to note that the state drought areas differ from those areas depicted in drought on the US Drought Monitor (a federal monitoring product) because of differing definitions of drought. The state's definition is most concerned with water supply, and more complete information on the criteria can be found at WA State [Department of Ecology](#).

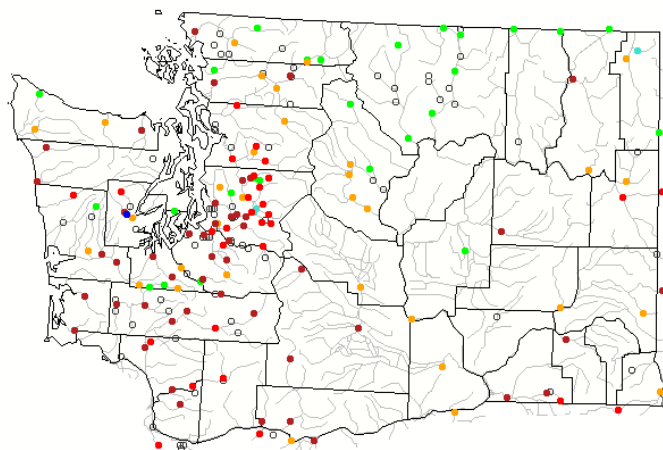


Olympic Peninsula, Western Slopes of Northern and Southern Cascades

As mentioned above, the majority of the precipitation that fell in the last week was on May 5. Even though Quillayute Airport recorded 0.36" on that day, the weekly precipitation total is still below normal for the Peninsula and other areas west of the Cascade Mountains. Temperatures have been the closest to normal throughout these three regions in both the last week and the last 30 days. Average 7-day streamflow has been below normal to near-normal on the Peninsula and the northern Cascade region. For the areas in declared drought on the west slopes of the southern Cascades, the 7-day average streamflow was much below normal. This region has received less precipitation and had one of the lowest snowpacks in the state which helps explain the much below normal streamflows.

7-day Average Streamflow (5/6):

Wednesday, May 06, 2015



USGS

USGS

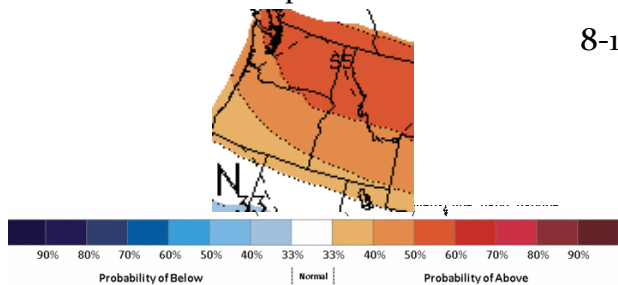
Explanation - Percentile classes							
●	●	●	●	●	●	●	●
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Chelan/Kittitas/Yakima Region and Walla Walla Watershed

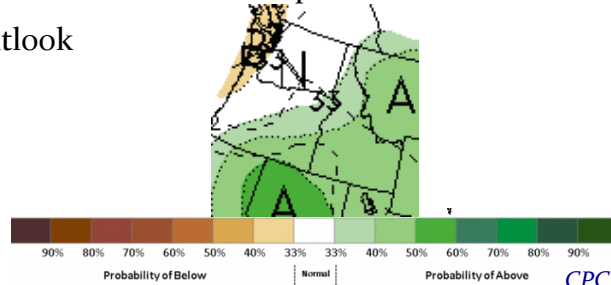
These regions have been very dry over the last week. Wenatchee and Yakima haven't received any precipitation, while Ellensburg received a "trace" of precipitation and Walla Walla received 0.06" on April 29. In accordance with the dry conditions over the last week, the average 7-day streamflow was below normal to much below normal throughout most of these regions. The near-normal 7-day average streamflow through Chelan and Okanogan counties is likely a result of snowmelt from what little snow there is. One other item to note for these regions is that the Yakima Bureau of Reclamation once again [decreased](#) its forecasted available water supply for the proratable water users. The senior water users will get their full allotment while the proratable users will receive 47% of their normal allotment.

Extended Outlook

Temperature

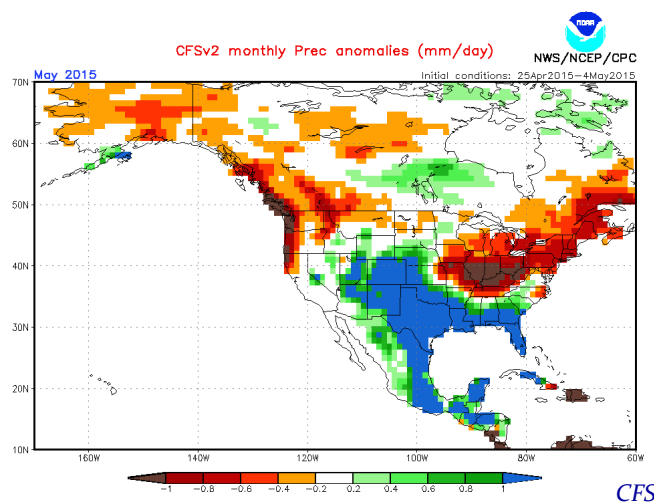
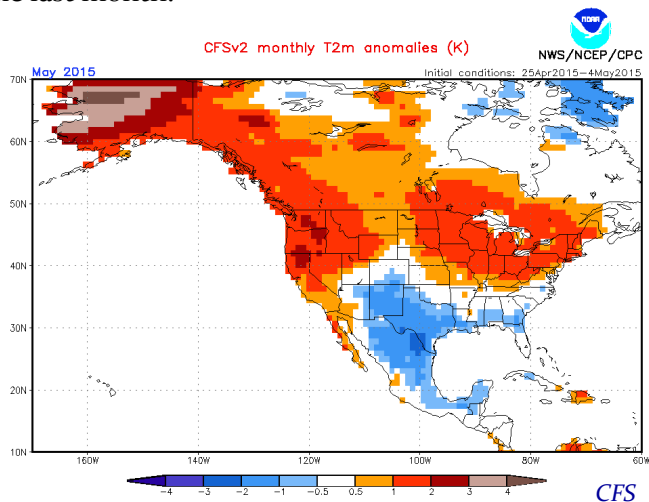


Precipitation



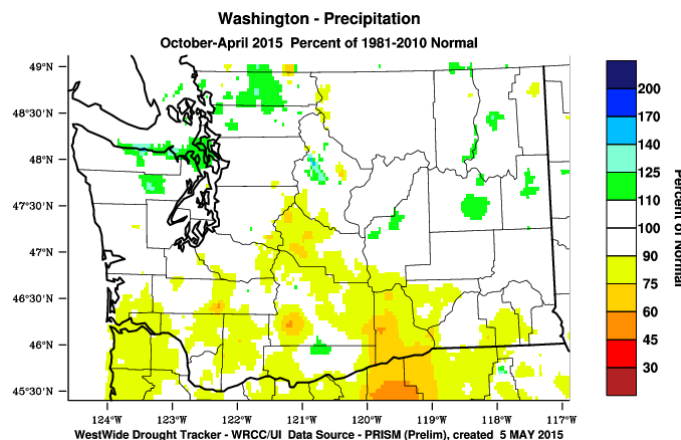
The 8-14 day forecasts from NOAA/CPC indicates above normal temperatures and near-normal precipitation for Washington state for the period of 14-20 May. There are increased odds for below normal precipitation in western WA during that time period as well, while other part of the Pacific Northwest may see above normal precipitation.

The latest 10-day ensemble of projections from NOAA's Coupled Forecast System (CFS) climate model for the month of May 2015 are shown below for temperature (left) and precipitation (right). Warmer than normal temperatures are expected throughout the Pacific Northwest, and both the spatial extent and the magnitude of the anomalies is larger than the ensemble predictions about a month ago. The ensemble forecast is still calling for less precipitation than normal, and the area and magnitude of the anomalies has also grown over WA State since this time last month.



Water Year-to-date Precipitation

While October through April temperatures were unanimously warmer than normal statewide, the 7-month total precipitation percent of normal is variable throughout the state. The drier than normal April has helped most of southern WA to stay on the drier than normal side with most of the places with below normal precipitation receiving between 75 and 90% of normal. The remainder of the state has had near-normal precipitation (between 90 and 110% of normal). A few areas in northern WA have had slightly above normal precipitation (110-125% of normal) since the beginning of the Water Year (October 1, 2014), as shown in the map from the WestWide Drought Tracker.



WWDT

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