Water Conditions Report June 20, 2016



Summary:

Precipitation for May and June has been below normal for much of the state. Although all basins have received near average amounts of precipitation for the year so far, May was the second month in a row to be drier than usual for much of the state. The only areas seeing appreciable amounts of precipitation in May were the eastern part of the Klamath basin, and the Goose & Summer Lake basin. Even still, the amount of precipitation in these areas was not enough to offset the early loss of snowpack. June precipitation will play a critical role in water supply demand and summer streamflow.

High temperatures have led to rapid and extreme snowmelt. While Oregon's snowpack reached its peak in early April, warm temperatures in mid-April resulted in an extreme melt-off, two to five weeks earlier than normal. Only high elevation SNOTEL sites in the Willamette, Grande Ronde, and Powder / Burnt River Basins show any observable snowpack. Temperatures during the month of May were one to two degrees above average in many parts of the state, with temperatures in June around four degrees above average. While temperatures have been cooler in recent days, warmer conditions are expected again in late June, lasting through September.

Several streamflow sites are now approaching record lows for this time of year. Most streams and rivers throughout the state reached their snowmelt-driven streamflow peak earlier than usual. Streams in areas that rely on low-elevation snowpack are in rapid decline. Basins that are now most heavily stressed are coastal basins (with 38 to 44 percent of average streamflow), the Umpqua (44 percent), and the Umatilla (26 percent). Streamflows in these basins are at a record low, in some instances, even below measurements taken this time last year. This rapid run-off may have resulted in lower recharge rates to groundwater as well.

Streamflow forecasts for April through September have declined significantly. In the past two months, streamflows have dropped far below average, resulting in streamflow forecasts that are also normal to well below normal for the June through September period. Sites in northwest and western central Oregon are forecast for below normal streamflow conditions throughout the summer; these are among the lowest volumes in the forecast.

Reservoir levels have improved since last year, but are beginning to drop quickly. Reservoir storage levels across the state are much higher compared to this time last year, as they were able to capture the springtime run-off. Rivers that are fed by reservoirs are in better shape than those that are not; water shortages are possible this summer in locations without access to storage. However, all reservoirs are now in draw-down, supplying irrigation and municipal water, as well as instream flows for fisheries. By the end of the summer, reservoir levels will likely mirror 2015 levels. **The Drought Monitor shows 100 percent of the state abnormally dry.** As of June 14, the entire state is in the D0 category (abnormally dry). Stretching from North Central Oregon to eastern Klamath County and eastward, more than 40 percent of the state is also listed in the D1 category (moderate drought). See accompanying graphic.

Temperature Outlook calling for above normal temperatures through September.

Currently, NOAA's Climate Prediction Center is calling for above normal temperatures through the September outlook period. Climate conditions are favorable for the development of La Niña—typically bringing cooler and wetter conditions—this fall and winter in the Pacific Northwest.

Fire Outlook for the Northwest is normal. The National Interagency Fire Center's (NIFC) monthly outlook is currently predicting a normal fire season through the forecast period of August 2016. Conditions are driest in the southwest part of the state. In June, we will likely see the onset of a typical fire season. Another monthly outlook will be released on July 1, 2016.

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Temperature Departures

Website: http://www.wrcc.dri.edu/anom/ore_anom.html



Three Month Outlook (July-August-September 2016)

Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1





1-Dec

-Jan

-Nov

1-Feb

I-Mar -Apr

-Oct

NRCS June 1 Snowpack Plots - for complete report see website







-Jun 1-Jul

I-May



SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

Website: http://www.wcc.nrcs.usda.gov/ftpref/gis/images/or_wytdprecpctnormal_update.png



Website: http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?OR

U.S. Drought Monitor Oregon



(Released Thursday, Jun. 16, 2016) Valid 8 a.m. EDT



Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	44.55	0.00	0.00	0.00
Last Week 67/2016	0.59	99.41	29.72	0.00	0.00	0.00
3 Month's Ago 375/2016	29.47	70.53	48.88	18.60	0.00	0.00
Start of Calend ar Year 12/29/2015	14.52	85.48	80.45	65.33	39.55	0.00
Start of Water Year 929/2015	0.00	100.00	100.00	100.00	67.29	0.00
One Year Ago 676/2015	0.00	100.00	97.80	78.15	34.09	0.00

Intensity:

D0 Abnomn ally Dry D1 Moderate Drought D2 Sevene Drought

D3 Extrem e Drought D4 Exceptional Drought

ught

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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http://droughtmonitor.unl.edu/

Compared to May 31, 2016



Website: http://www.usda.gov/documents/usda-drought-fast-track-designations.pdf



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

Reservoir	Percent Full on June 17, 2016
Blue River Reservoir	68 percent
Cottage Grove Reservoir	91 percent
Cougar Reservoir	21 percent
Detroit Reservoir	80 percent
Dorena Reservoir	76 percent
Fall Creek Reservoir	72 percent
Fern Ridge Reservoir	97 percent
Foster Reservoir	91 percent
Green Peter Reservoir	64 percent
Hills Creek Reservoir	46 percent
Lookout Point Reservoir	39 percent
Willamette Project Total:	60 percent



Reservoir Storage – Tualatin River Basin

Website: http://www.usbr.gov/pn/hydromet/tuatea.html



Reservoir Storage – Deschutes Basin

Website: http://www.usbr.gov/pn/hydromet/destea.html

Reservoir	Percent Full on June 16, 2016
Crescent Lake	70 percent
Wickiup Reservoir	61 percent
Crane Prairie Reservoir	80 percent
Prineville Reservoir	87 percent
Ochoco Reservoir	87 percent
Haystack Reservoir	87 percent



Reservoir Storage – Umatilla River Basin

Website: http://www.usbr.gov/pn/hydromet/umatilla/umatea.html

Reservoir	Percent Full on June 16, 2016
Cold Springs Reservoir	43 percent
McKay Reservoir	70 percent

06/16/2016



Reservoir Storage – Southeastern Oregon

Website: http://www.usbr.gov/pn/hydromet/owytea.html

Reservoir	Percent Full on June 16, 2016
Phillips Reservoir	42 percent
Thief Valley Reservoir	86 percent
Unity Reservoir	73 percent
Beulah Reservoir	71 percent
Bully Creek Reservoir	76 percent
Warm Springs Reservoir	49 percent
Owyhee Reservoir	59 percent



Reservoir Storage – Rogue River Basin

Website: http://www.usbr.gov/pn/hydromet/roguetea.html

Reservoir	Percent Full on June 16, 2016
Agate Reservoir	85 percent
Applegate Reservoir	92 percent
Emigrant Lake	86 percent
Fish Lake	69 percent
Fourmile Lake	53 percent
Howard Prairie	66 percent
Hyatt Reservoir	69 percent
Lost Creek Reservoir	85 percent

06/16/2016



Website: http://www.nwd-wc.usace.army.mil/nwp/teacup/rogue/



Reservoir Storage – Klamath River Basin

Website: http://www.usbr.gov/pn/hydromet/klamath/teacup.html

Reservoir	Percent Full on June 17, 2016
Upper Klamath Lake	77 percent
Clear Lake	26 percent
Gerber Reservoir	40 percent

