# Water Conditions Report May 23, 2016



#### **Summary:**

Oregon has seen rapid snowmelt occurring all across the state. Unseasonably high temperatures this spring have played a key role in early runoff, anywhere from 2-6 weeks early. Observed temperatures during the month of April were 4 degrees above normal in many parts of the state. These warm temperatures have continued into May, with some relief occurring during the past week.

Above average precipitation in December contributed to very positive streamflow conditions. Only two basins the Goose and Summer Lake Basins and Umatilla Basin are seeing below average cumulative streamflow for the water year. Unfortunately, due to the early snowmelt and runoff, May streamflows are starting to recede earlier than normal to baseflow conditions. Although not typically associated with snowmelt, Coastal streams in particular, are of concern. The North Coast, Mid-Coast, and South Coast basins are showing 50 to 60 percent of average streamflow for the month of April. Refer to the attached hydrographs of the Nehalem River in Tillamook County, the Chewaucan River in Lake County, and the Umatilla River in Umatilla County.

The loss of snowpack, along with below average precipitation since late March, has resulted in a reduction of forecasted seasonal streamflow volumes for many forecast points. Many sites are forecasted for below normal or near normal streamflow conditions throughout the summer. The most significant declines in forecasted streamflow are in the Harney, Malheur, and Owyhee basins, where forecasts have declined on the order of 69 - 82 percent since the February 1 forecast.

Reservoir storage levels across the state are much higher compared to this time last year; however, streamflow into the reservoirs is trending downward quickly. This is similar to the trend that was observed at many locations last year. While there may be adequate supply from most reservoirs, it appears as though there could be limited availability from live flow later in the irrigation season.

While dry conditions are primarily occurring on the east side of the state, unless typical weather patterns change, conditions will likely degrade for western Oregon as well. Southeastern Oregon is listed in the D1 category (moderate drought), covering large portions of Malheur and Harney counties, and smaller portions of Lake and Klamath counties. Only 1 percent of the state is listed in the D2 category (severe drought).

Lake County is under a USDA federal drought designation, along with counties contiguous to its borders. Altogether, 7 Oregon counties have been federally declared, due in large part to primary county designations in northern California.

Currently, NOAA's Climate Prediction Center is calling for above normal temperatures through the June through August outlook period. The precipitation outlook is for equal chances of above or below normal precipitation for the same period.

The National Interagency Fire Center's (NIFC) monthly outlook is currently predicting a normal fire season through the forecast period of August 2016. In June, fire season will likely rise and we will see the onset of a typical fire season. Another monthly outlook will be released on June 1, 2016.

## Data & Products:

# Page:

Streamflow Plots	. 2-3
Temperature Departure (April 1-30 and May 1-8, 2016)	4
Three Month Outlook (May-June-July 2016)	4
NRCS May 1 Snowpack Plots	5
SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal	6
U.S. Drought Monitor for Oregon (May 3, 2016)	7
Reservoir Storage – Deschutes Basin	8
Reservoir Storage – Willamette Valley Project (USACE)	9
Reservoir Storage – Tualatin River Basin	10
Reservoir Storage – Rogue River Basin	11
Reservoir Storage – Umatilla River Basin	12
Reservoir Storage – Southeastern Oregon	13









Website: http://www.nwrfc.noaa.gov/water\_supply/wy\_summary/wy\_summary.php?tab=2

# Three Month Outlook (June-July-August 2016)

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





## **NRCS May 1 Snowpack Plots**



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

Website: http://www.wcc.nrcs.usda.gov/ftpref/gis/images/or\_wytdprecpctnormal\_update.png



## U.S. Drought Monitor for Oregon (May 17, 2016)

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

# U.S. Drought Monitor Oregon

# May 17, 2016

#### (Released Thursday, May. 19, 2016) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

		None	00-04	01-04	DZ-D4	D3-D4	D4
	Current	33.66	66.34	24.74	1.00	0.00	0.00
	Last Week 510/2016	34.27	65.73	26.12	1.00	0.00	0.00
	<b>3 Month s Ago</b> 276/2016	22.58	77.42	67.55	33.96	0.00	0.00
•	Start of Calendar Year 12292015	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 5/19/2015	0.00	100.00	86.76	67.38	34.09	0.00

Intensity:

D0 Abnomn ally Dry



D3 Extreme Drought



D2 Severe Drought

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

#### Author:

David Simeral Western Regional Climate Center



http://droughtmonitor.unl.edu/



## **Reservoir Storage – Deschutes Basin**

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

Reservoir	Percent Full on May 22, 2016
Crescent Lake	69 percent
Wickiup Reservoir	74 percent
Crane Prairie Reservoir	81 percent
Prineville Reservoir	95 percent
Ochoco Reservoir	92 percent
Haystack Reservoir	95 percent



Website: ht	tp://www.nwd-wc.usace.	.army.mil/nw	p/teacup	/willamette/

Reservoir	Percent Full on May 22, 2016
Blue River Reservoir	88 percent
Cottage Grove Reservoir	95 percent
Cougar Reservoir	18 percent
Detroit Reservoir	84 percent
Dorena Reservoir	84 percent
Fall Creek Reservoir	85 percent
Fern Ridge Reservoir	99 percent
Foster Reservoir	92 percent
Green Peter Reservoir	74 percent
Hills Creek Reservoir	68 percent
Lookout Point Reservoir	55 percent
Willamette Project Total	70 percent



Note: The Corps of Engineers has lowered Cougar Reservoir to allow for urgent debris removal and repairs in Cougar Dam's temperature control structure. Refill of this reservoir began on April 13. Link to <u>press</u> <u>release</u>.

# Reservoir Storage – Tualatin River Basin

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

Reservoir	Percent Full on May 22, 2016
Scoggins Dam/Henry Hagg L.	100 percent



# Reservoir Storage – Rogue River Basin

Website: <u>http://www.usbr.gov/pn/hydromet/roguetea.html</u> Website: <u>http://www.nwd-wc.usace.army.mil/nwp/teacup/rogue/</u> (Applegate & Lost Creek)

Reservoir	Percent Full on May 22, 2016
Applegate Reservoir	96 percent
Emigrant Lake	95 percent
Fish Lake	73 percent
Fourmile Lake	59 percent
Howard Prairie	70 percent
Hyatt Reservoir	75 percent
Lost Creek Reservoir	99 percent



# Reservoir Storage – Umatilla River Basin

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

Reservoir	Percent Full on May 22, 2016
McKay Reservoir	83 percent
Cold Springs Reservoir	53 percent



# **Reservoir Storage – Southeastern Oregon**

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

Reservoir	Percent Full on May 22, 2016
Phillips Reservoir	46 percent
Thief Valley Reservoir	100 percent
Unity Reservoir	91 percent
Beulah Reservoir	88 percent
Bully Creek Reservoir	90 percent
Warm Springs Reservoir	58 percent
Owyhee Reservoir	64 percent

