

Oregon Water Supply Availability Committee

June 12, 2018

Rock Springs SNOTEL
Grant County
Elevation 5290'
May 22, 2018

H. Scott Oviatt
Snow Survey Supervisory Hydrologist
USDA Natural Resources Conservation Service
Scott.Oviatt@or.usda.gov
503-414-3271
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/>

3 Oregon SNOTEL Sites with Remaining measurable SWE – June 12, 2018

GRANDE RONDE, POWDER, BURNT, IMNAHA

Aneroid Lake #2 7400' SWE = 2.6" Normal = 8.7" Percent Normal = 30%

HOOD, SANDY, LOWER DESCHUTES

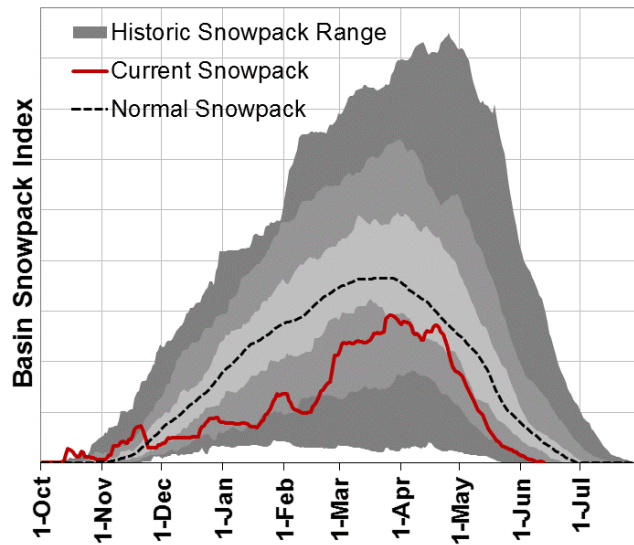
Mt. Hood Test Site 5370' SWE = 0.6" Normal = 34.4" Percent Normal = 2%

WILLAMETTE

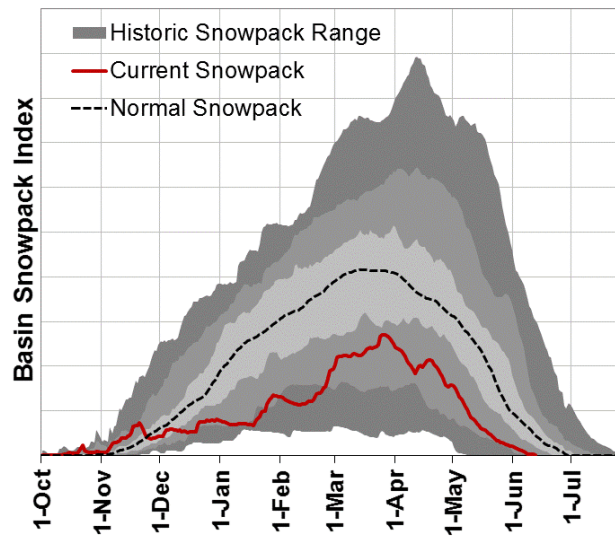
Summit Lake 5610' SWE = 0.3" Normal = 19.9" Percent Normal = 2%

Water Year 2018 – June 12th

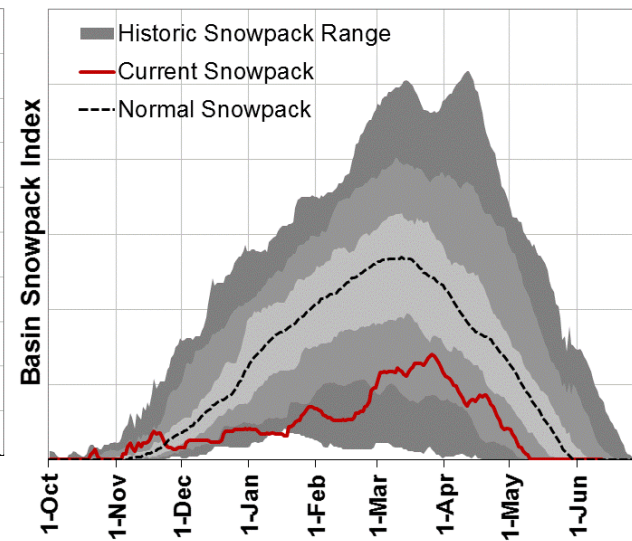
Willamette



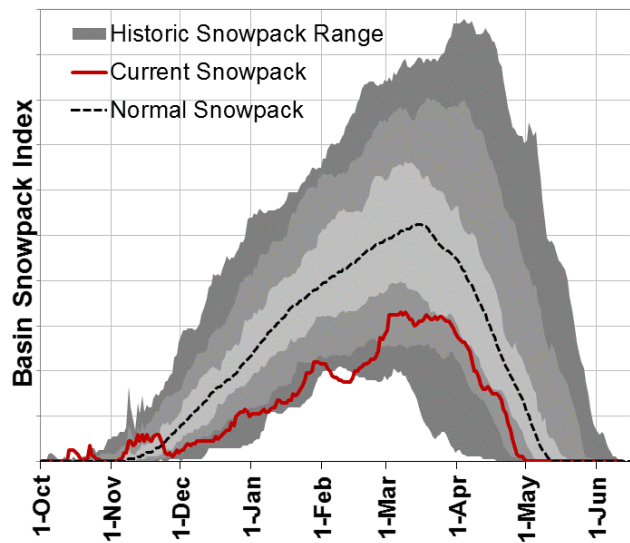
Rogue/Umpqua



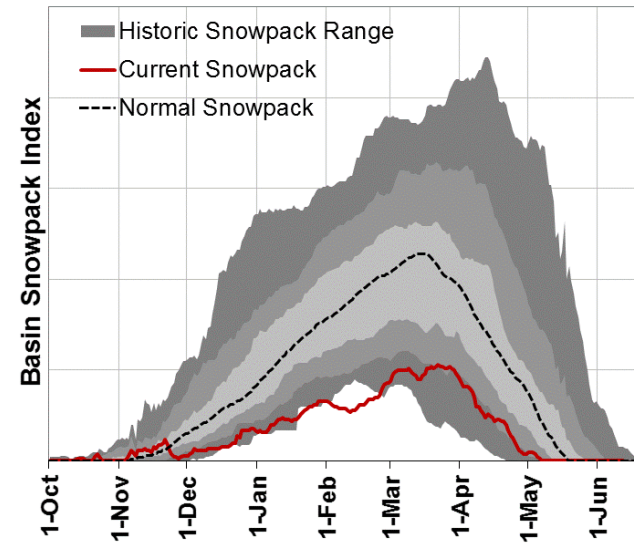
Klamath



John Day



Grande Ronde/Powder/Burnt



Owyhee/Malheur

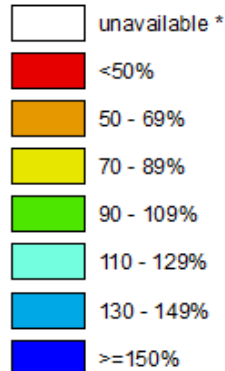
Statewide SNOTEL Precipitation is 89% of normal on June 12, 2018

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

Jun 12, 2018

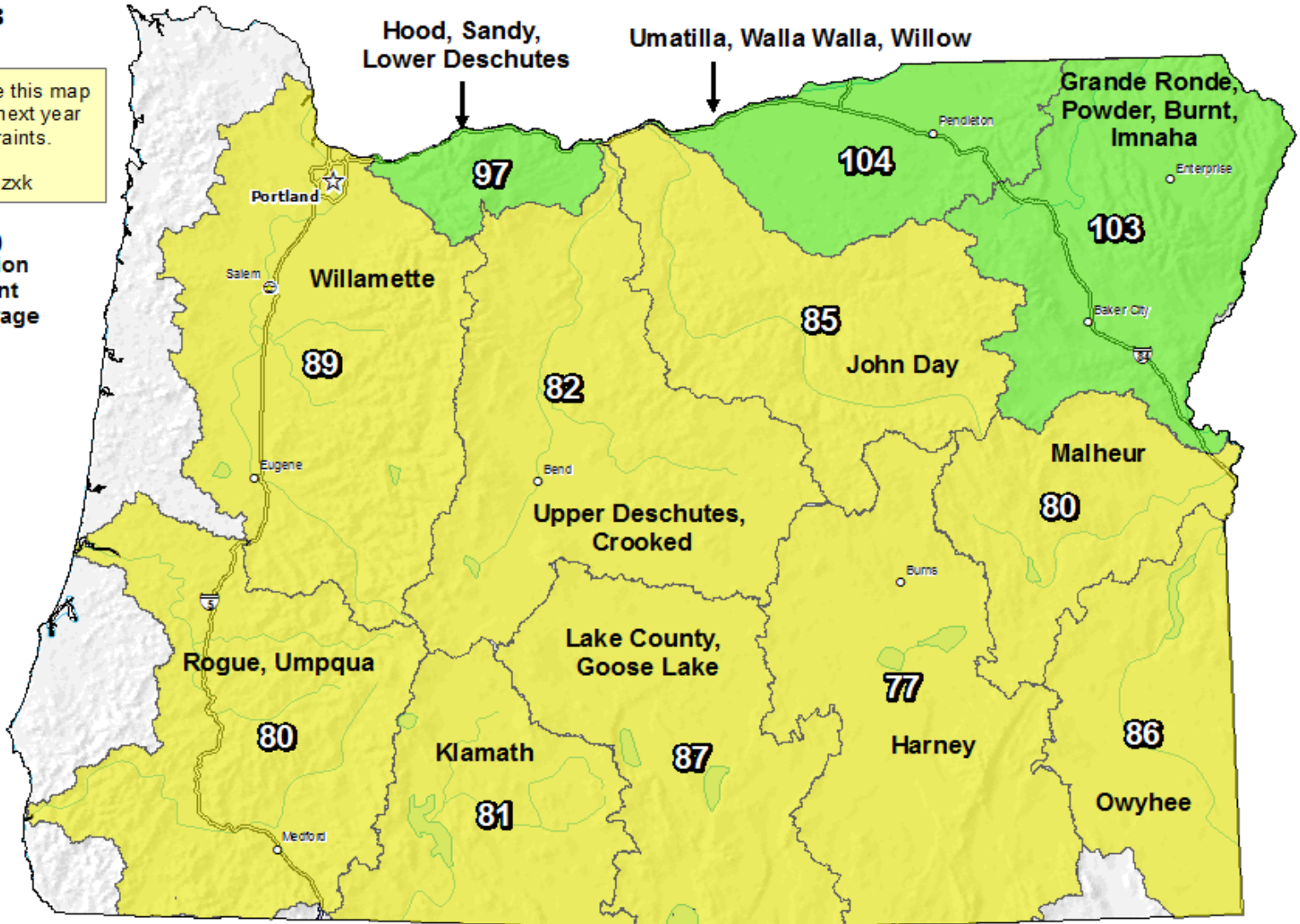
Notice: We anticipate this map will not be available next year due to staffing constraints. Alternate maps: <https://go.usa.gov/xnzxk>

Water Year (Oct 1) to Date Precipitation Basin-wide Percent of 1981-2010 Average

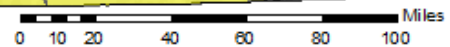


* Data unavailable at time of posting or measurement is not representative at this time of year

Provisional Data
Subject to Revision



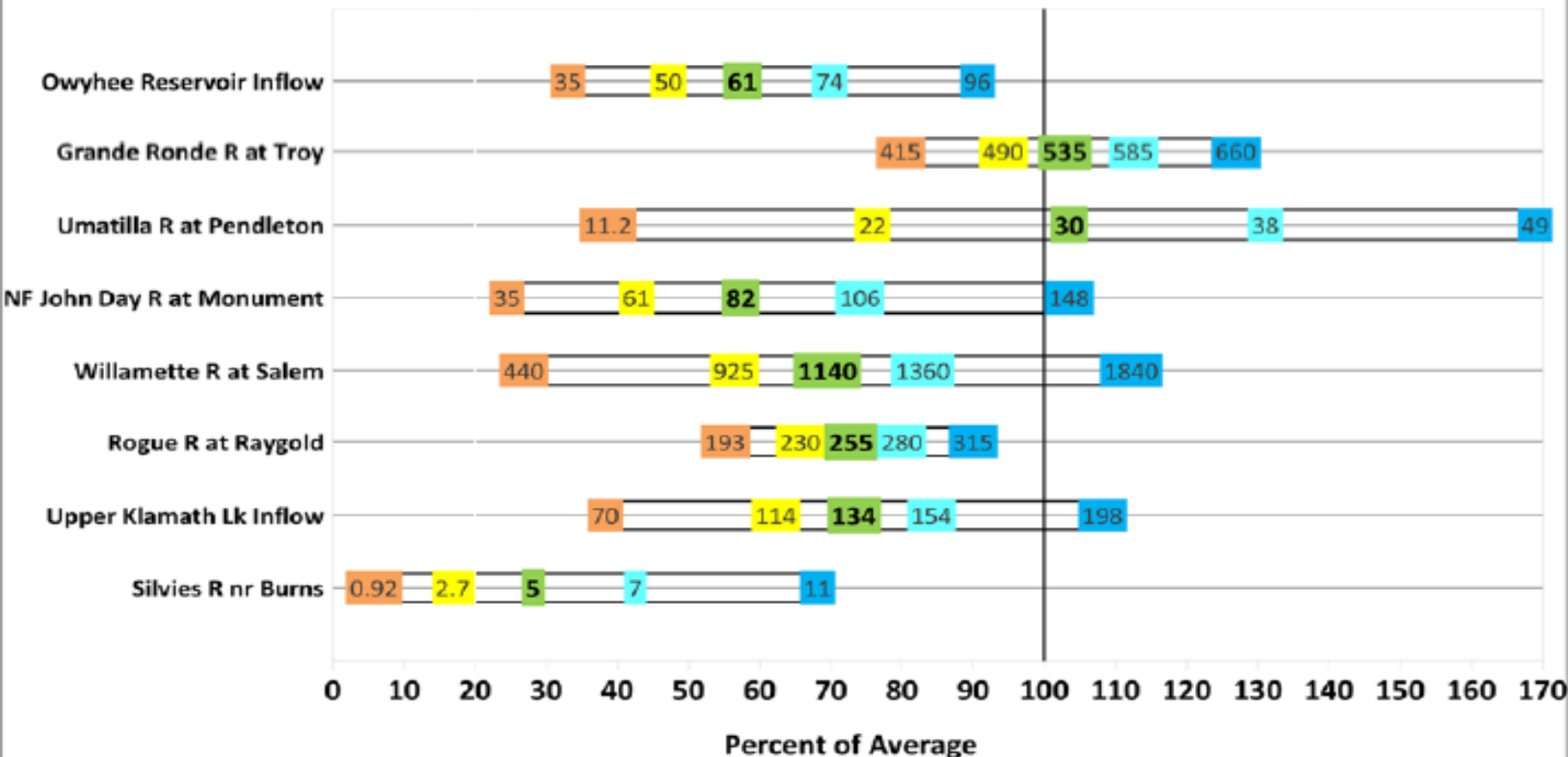
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).








Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Summary of Streamflow Forecasts across Oregon

June through September Forecast Volumes at a Selection of Streamflow Points (Volumes listed in KAF)



Legend: ←-----Drier-----Future Conditions-----Wetter-----→

 90% Exceedance Forecast (KAF) There is a 90% chance that flows will exceed this volume.	 70% Exceedance Forecast (KAF) There is a 70% chance that flows will exceed this volume.	 50% Exceedance Forecast (KAF) There is a 50% chance that flows will exceed this volume.	 30% Exceedance Forecast (KAF) There is a 30% chance that flows will exceed this volume.	 10% Exceedance Forecast (KAF) There is a 10% chance that flows will exceed this volume.
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Thank you

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

Oregon Water Supply Availability Committee

June 12, 2018

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The background of the slide is a photograph of a river, identified as the Clackamas River, flowing through a dense forest. The water is dark and reflects the surrounding green trees. The forest is lush and appears to be in the middle of summer or early autumn.

Oregon Water Supply Availability

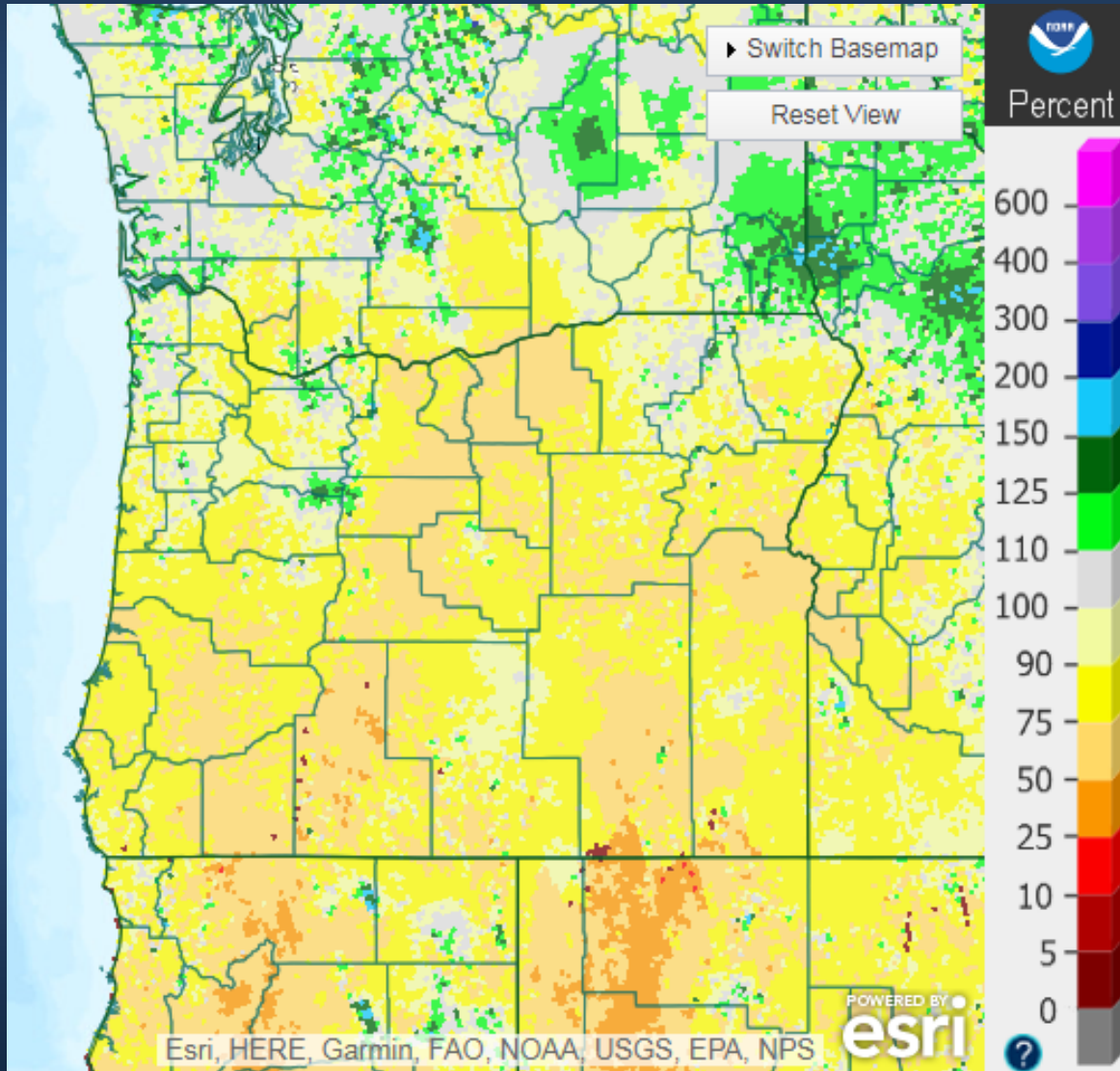
June 12, 2018 National Weather Service Update

Andy Bryant, NWS Portland



WY2018 Precipitation thus far

June 11th Water Year Precipitation to Date - Percent of Average



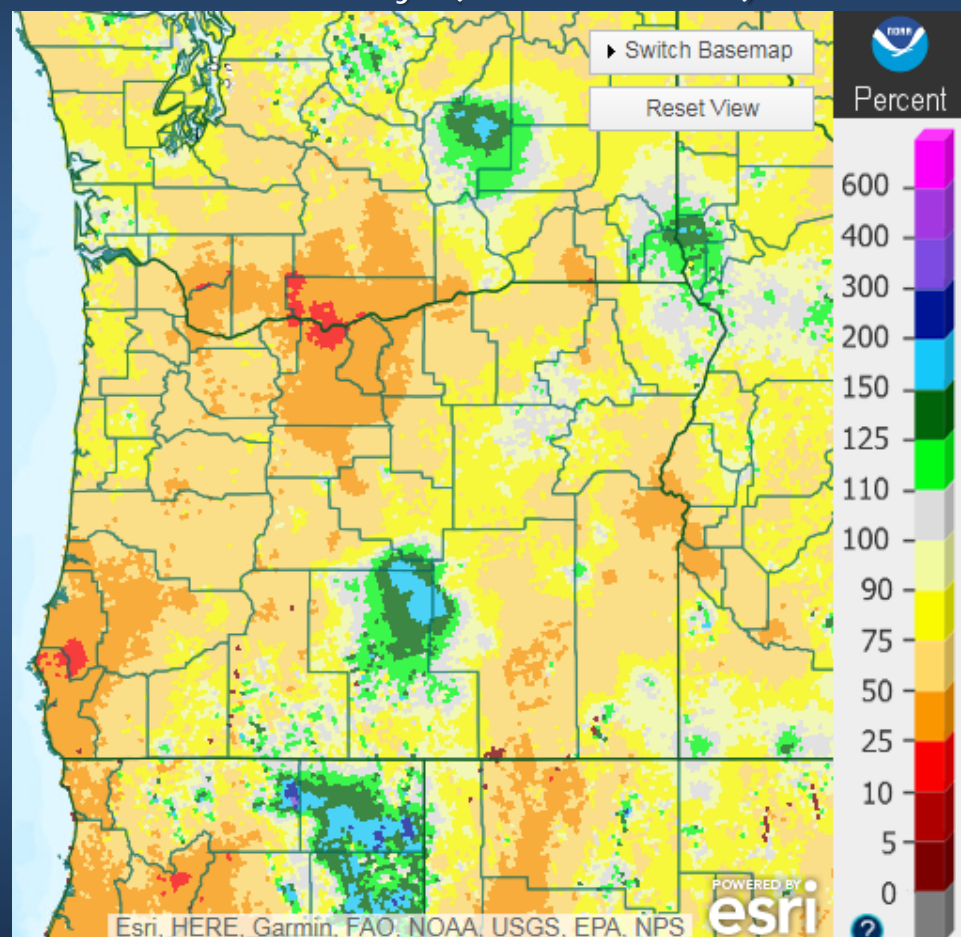
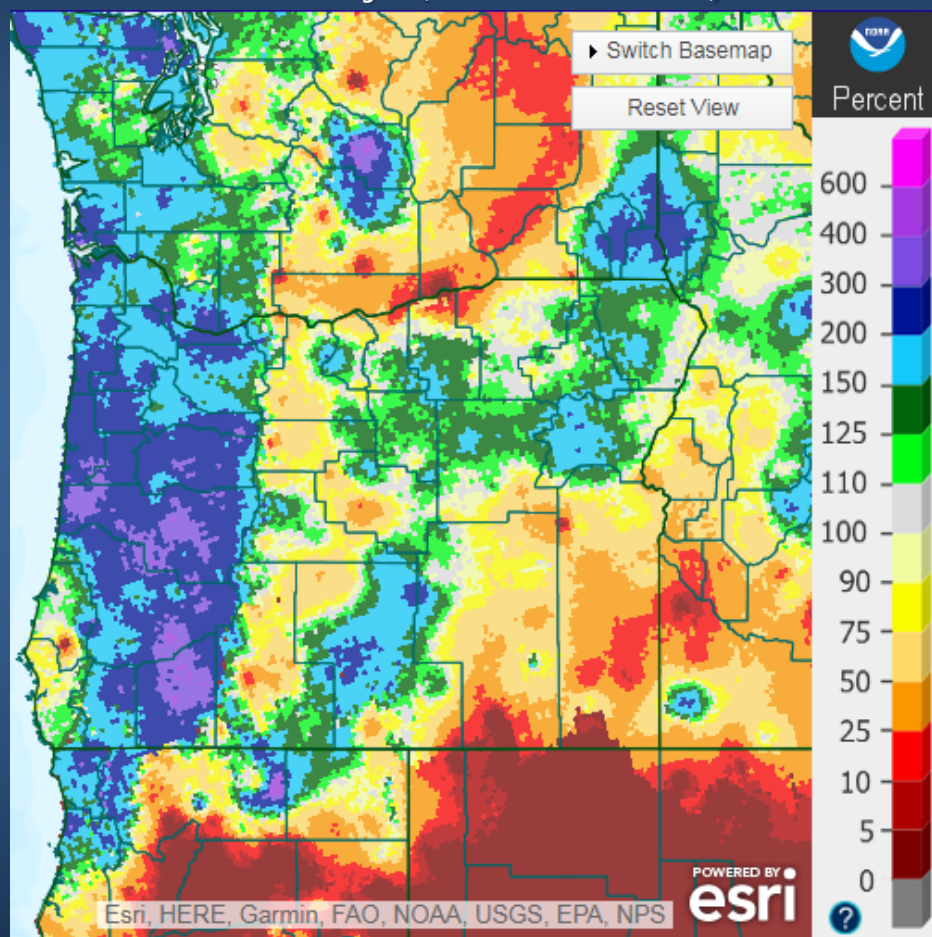
Source: water.weather.gov/precip/index.php?location_type=wfo&location_name=pqr



Recent Precipitation Percent of Average

Past 7 Days (as of June 11th)

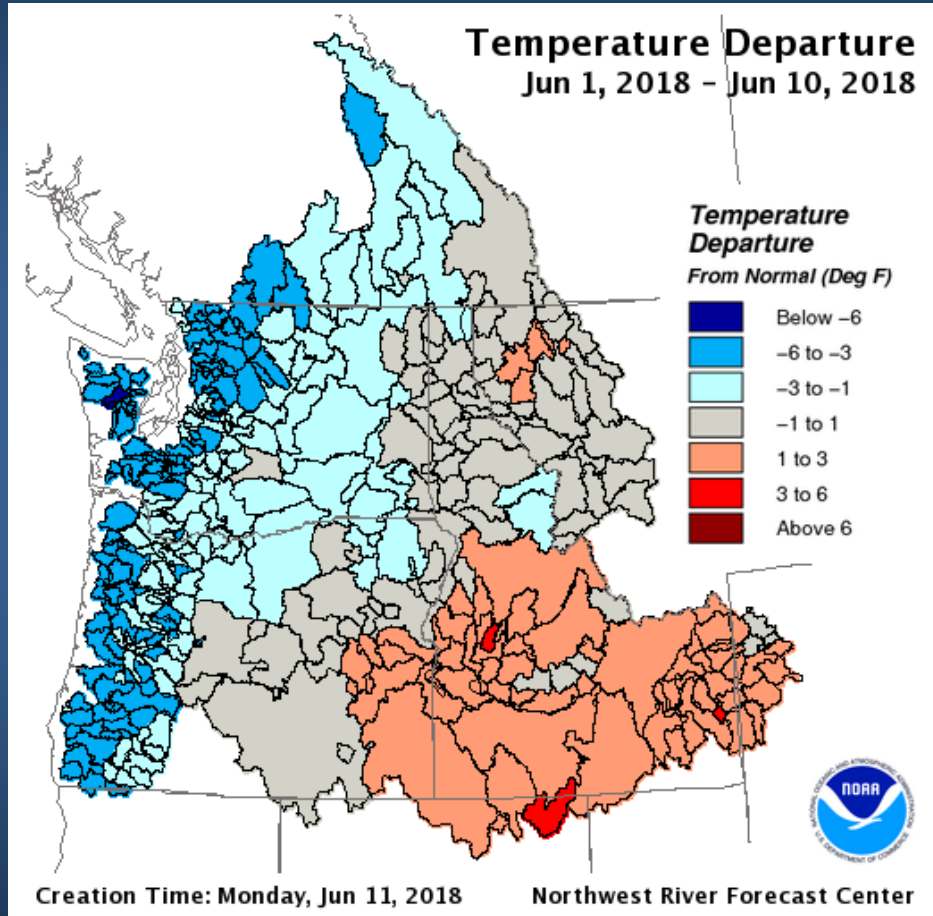
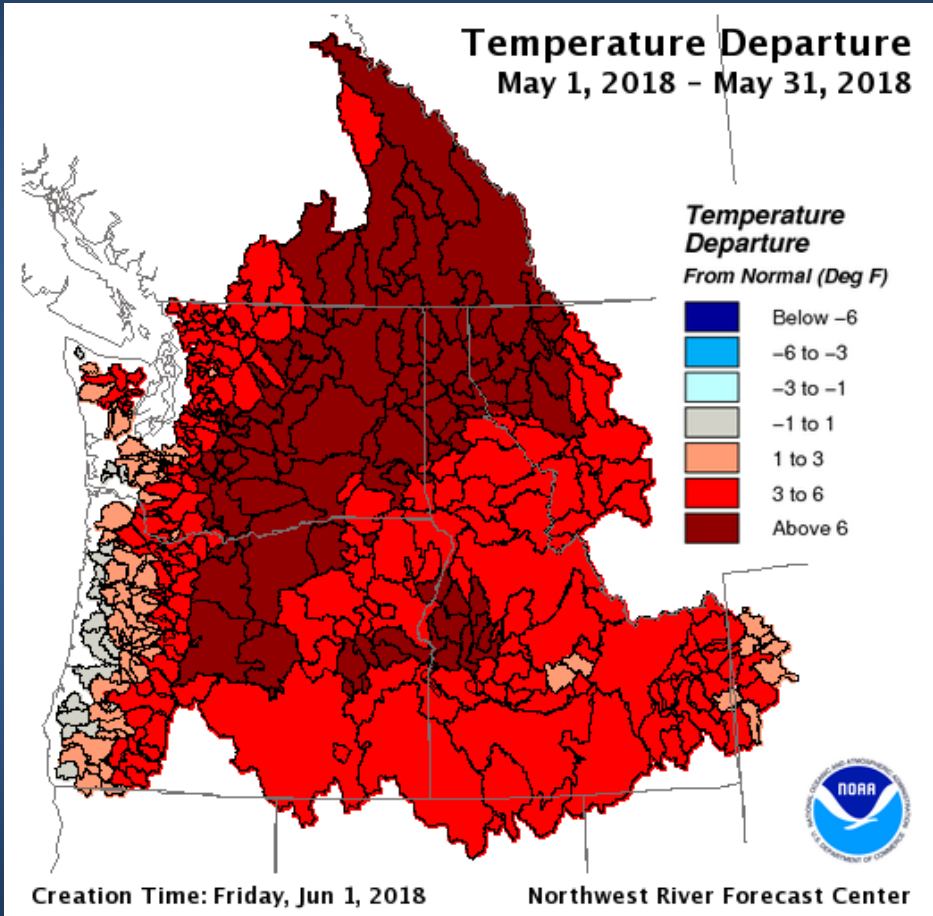
Past 60 Days (as of June 11th)





Recent Temperatures

Columbia Basin Conditions



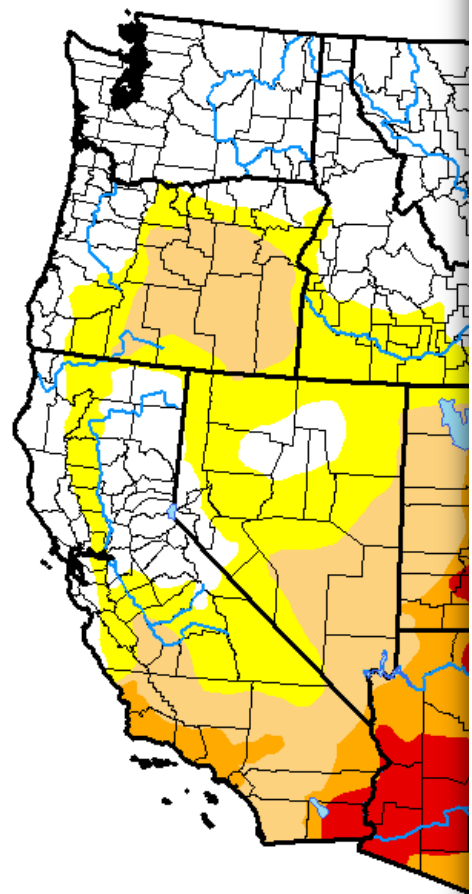
Source: www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php?tab=2



Drought Monitor

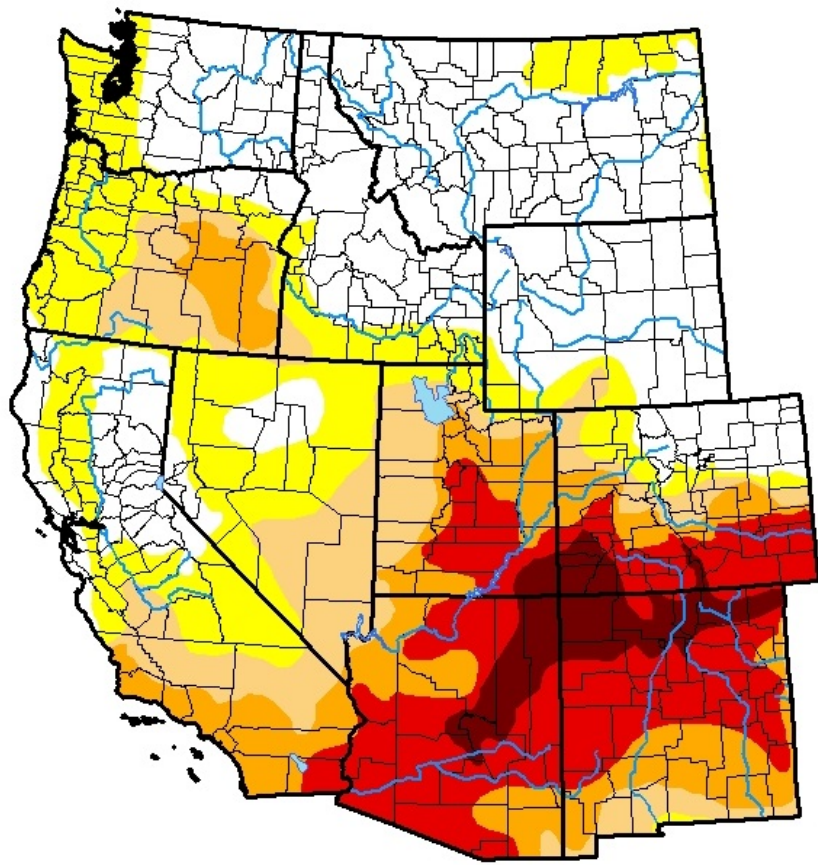
U.S. Drought Monitor West

May 8, 2018
(Released Thursday, May 10, 2018)
Valid 8 a.m. EDT



U.S. Drought Monitor West

June 5, 2018
(Released Thursday, Jun. 7, 2018)
Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

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

Author:

Anthony Artusa
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

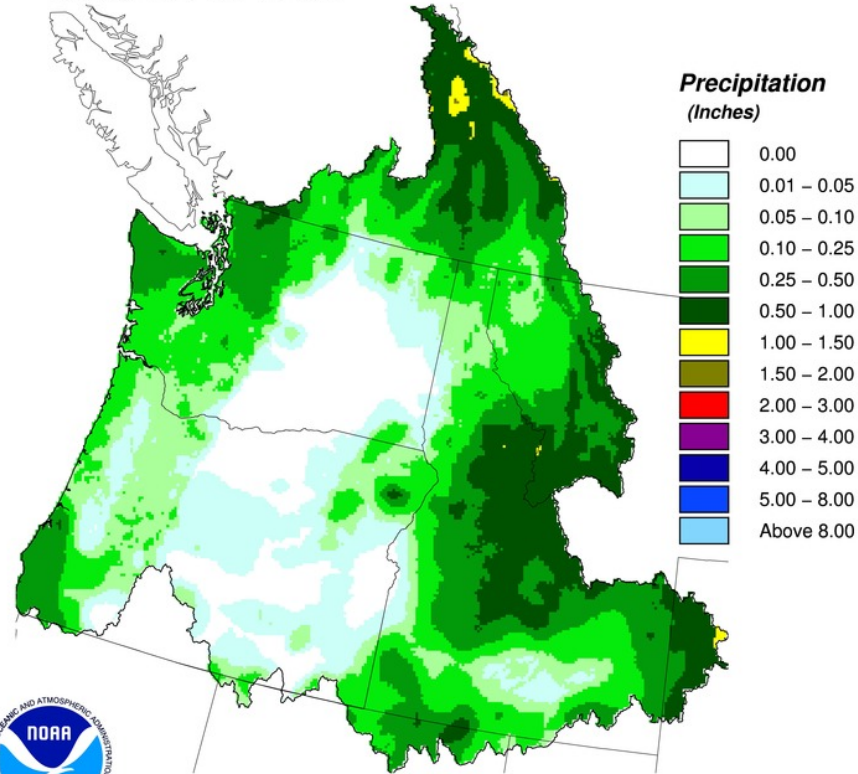


Mid-June Outlook

Forecast Precipitation June 12 - 21, 2018

10 Day QPF

Ending 12Z, 06/21/2018

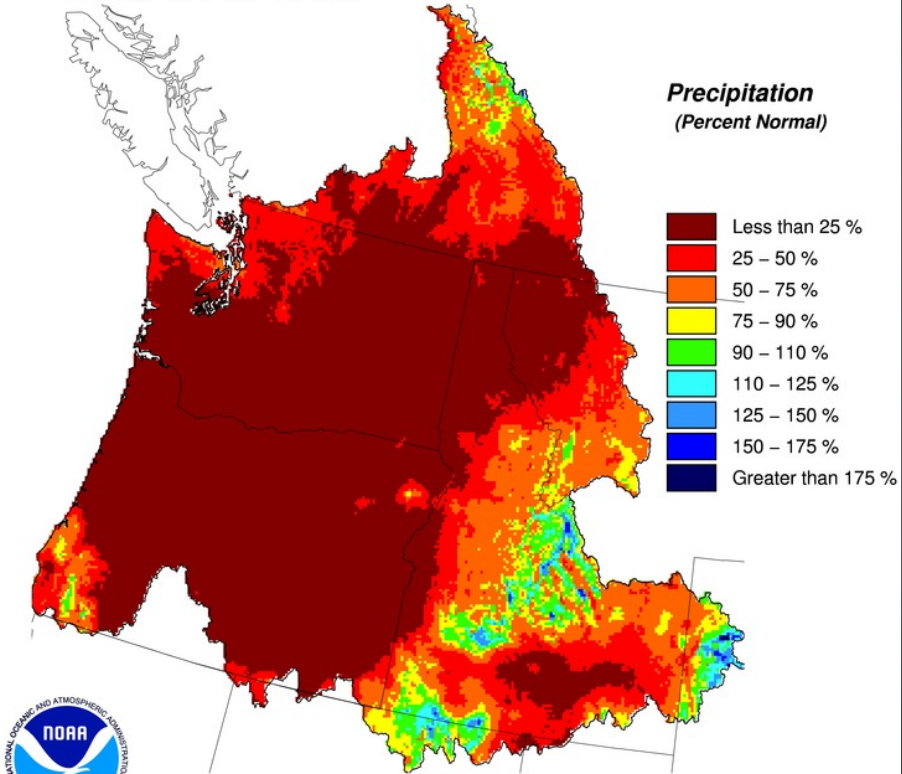


Creation Time: Mon Jun 11 13:59:39 UTC 2018



10 Day QPF (Percent of Climatology)

Ending 12Z, 06/21/2018



Creation Time: Mon Jun 11 13:59:50 UTC 2018



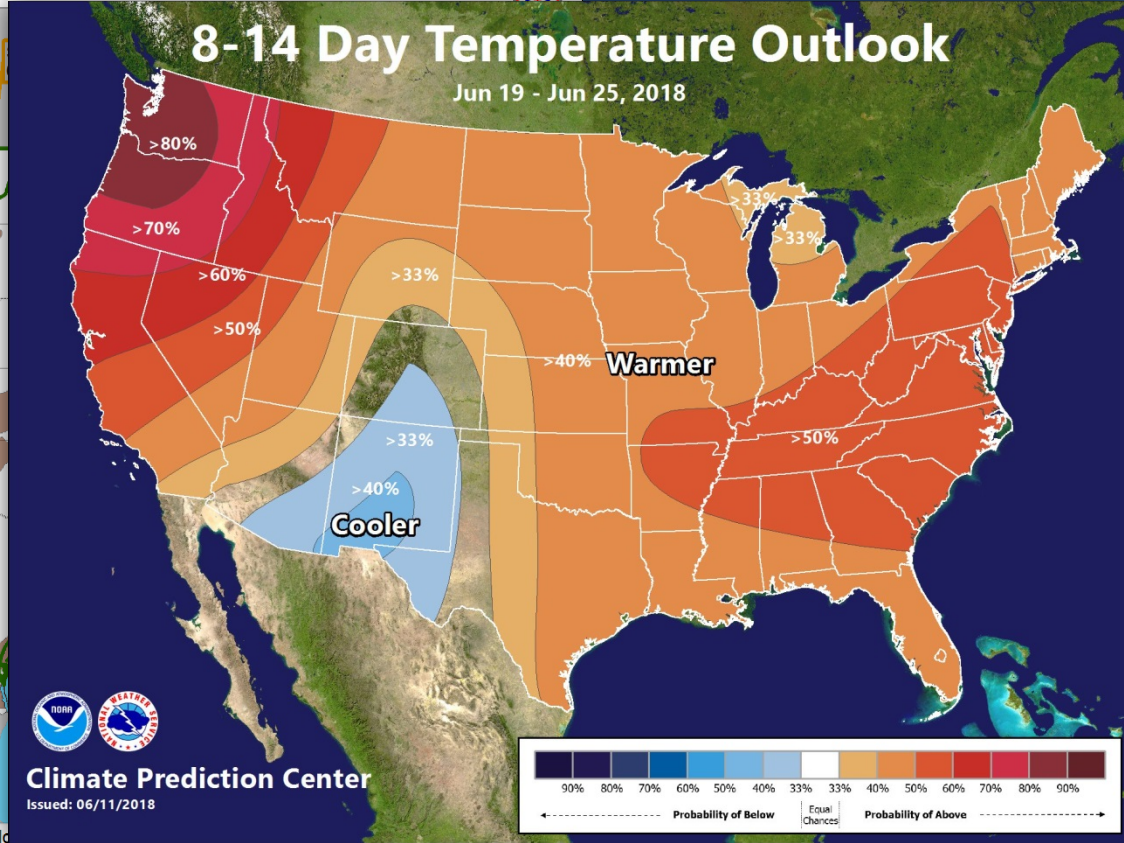
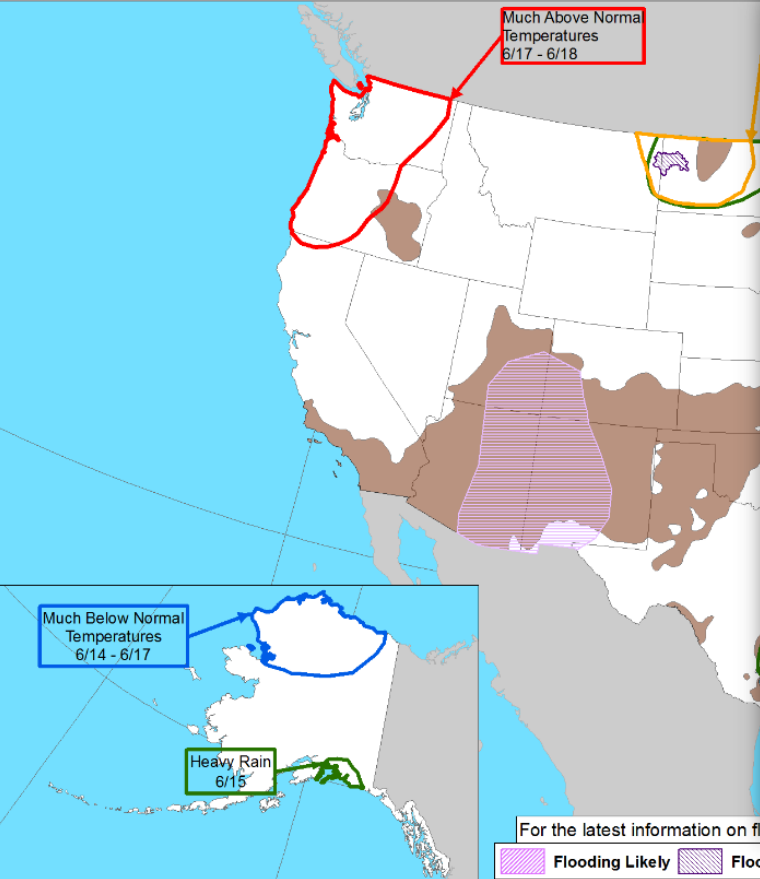


Mid/Late-June Outlook

Forecast Temperatures



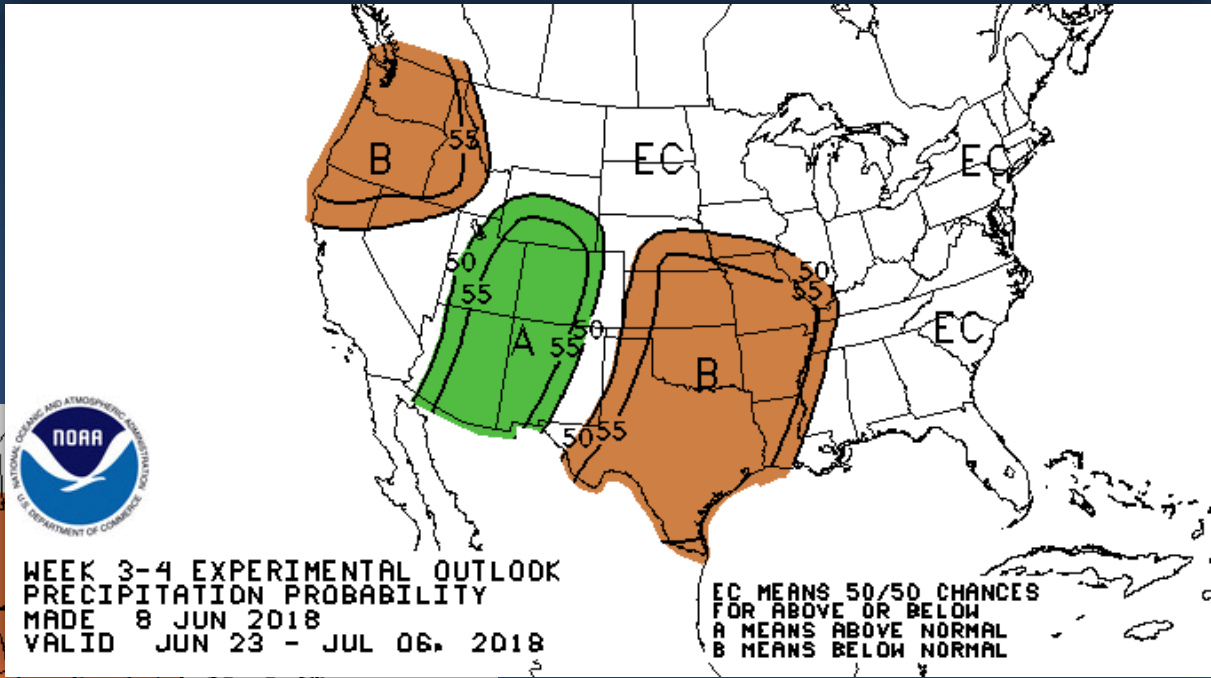
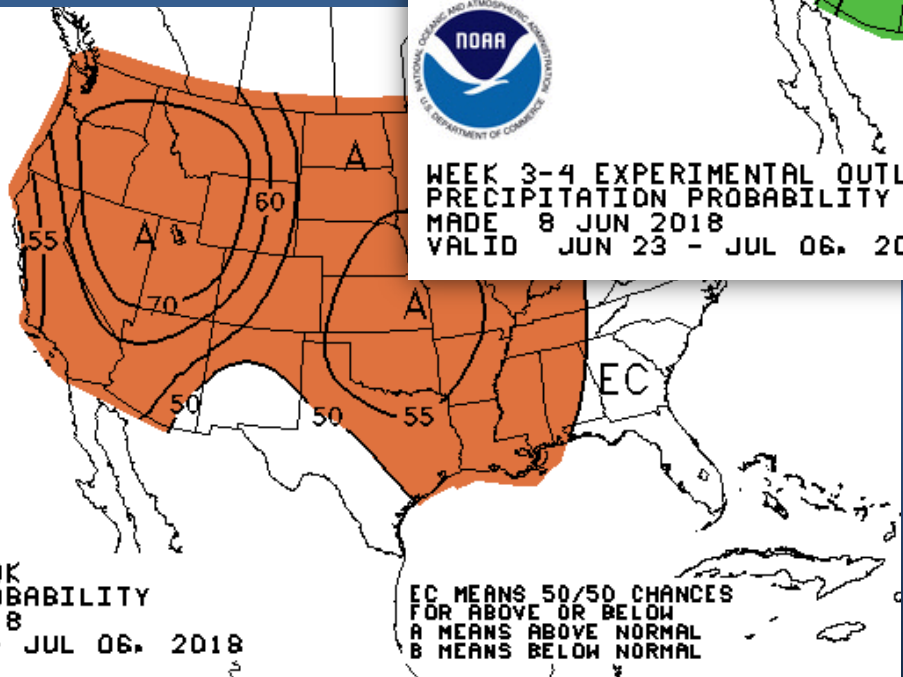
Day 3-7 U.S. Hazards Outlook
Valid: 06/14/2018-06/18/2018





Late-June / Early-July Outlook

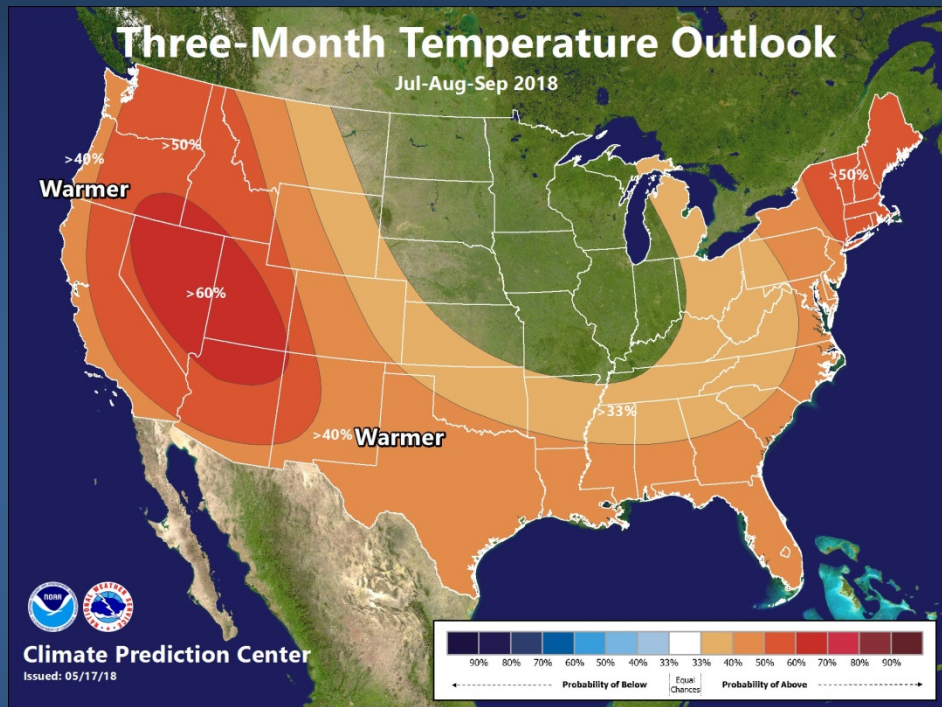
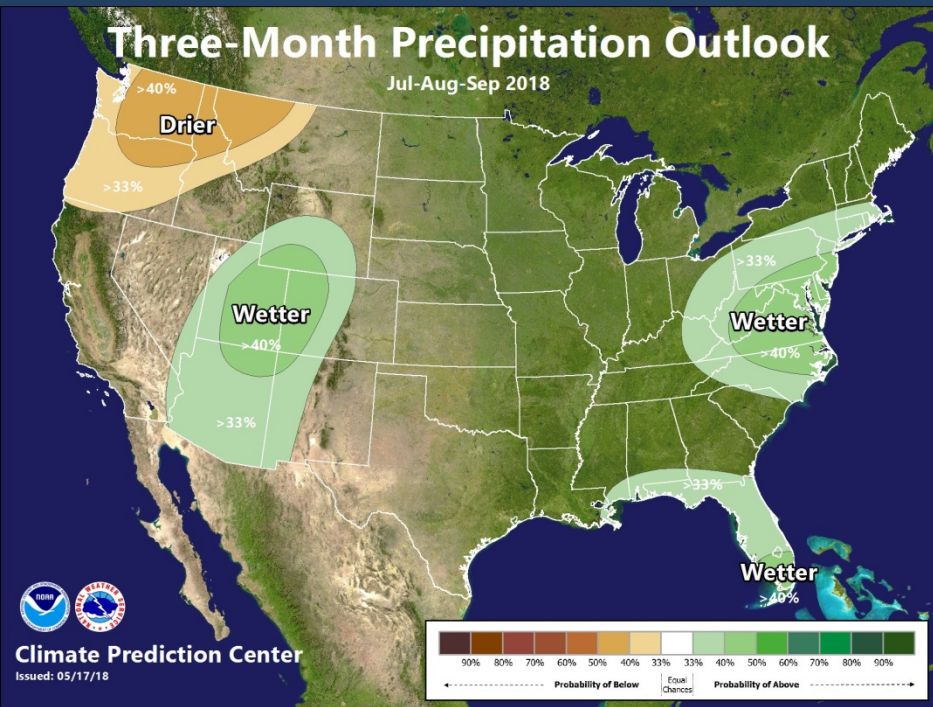
Temperatures



Precipitation



Outlook for July-August-September 2018

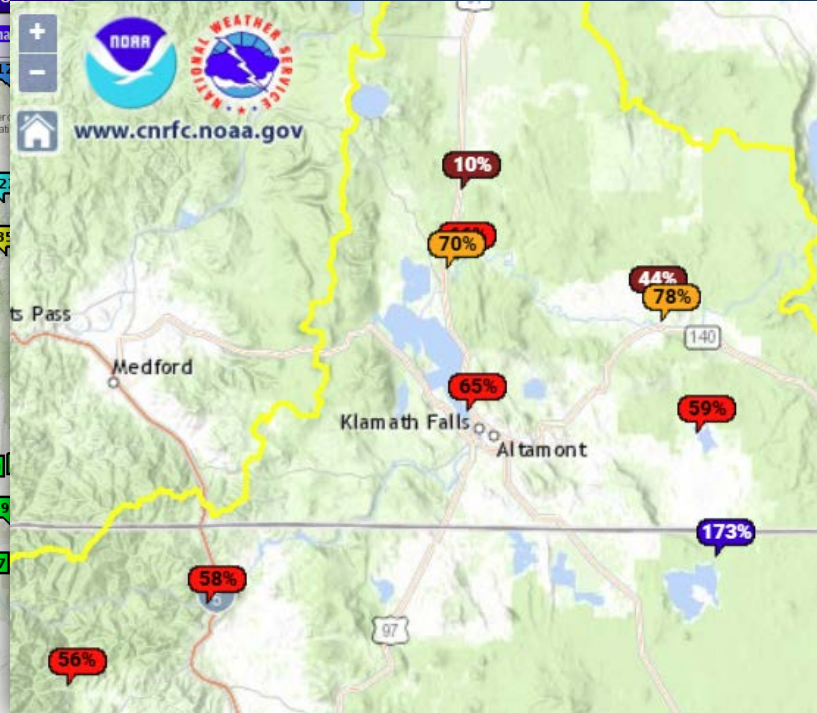
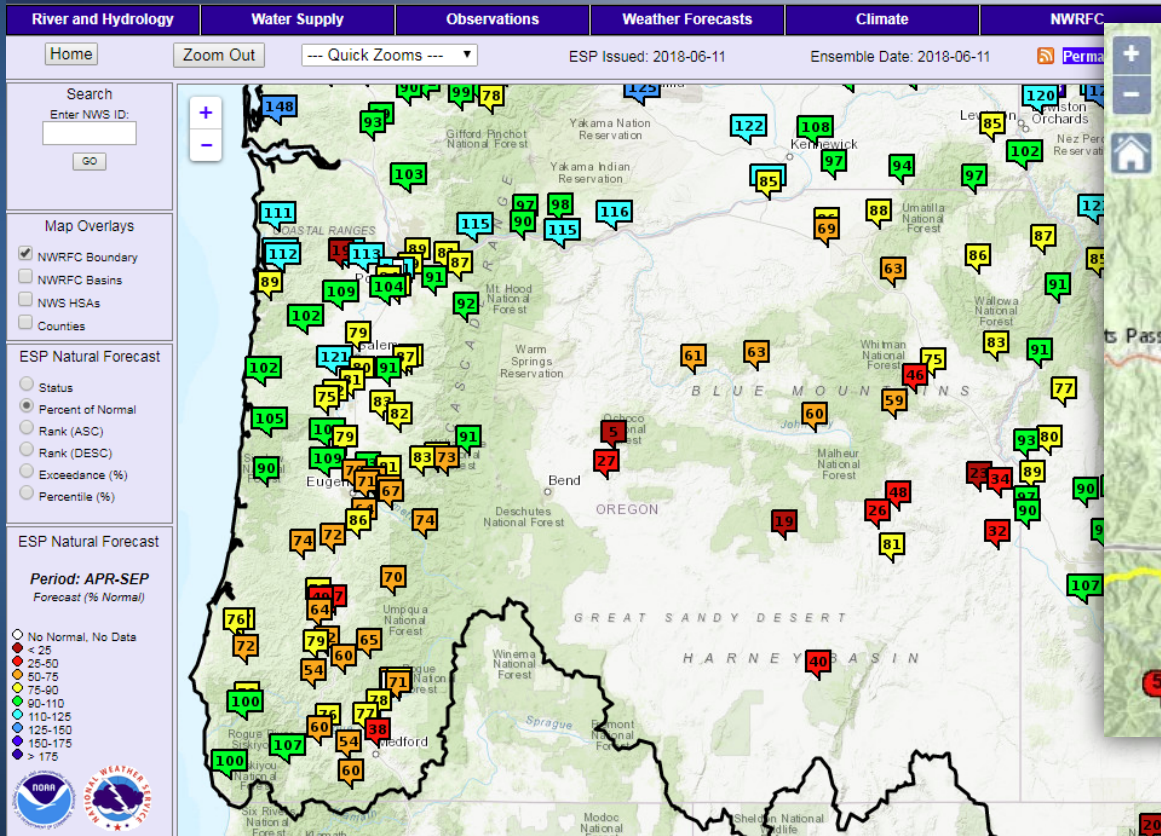




Water Supply Forecasts as of June 11th



Northwest River Forecast Center ESP Natural Forecast



Source: www.nwrfc.noaa.gov & www.cnrfc.noaa.gov



Observed Water Year Runoff

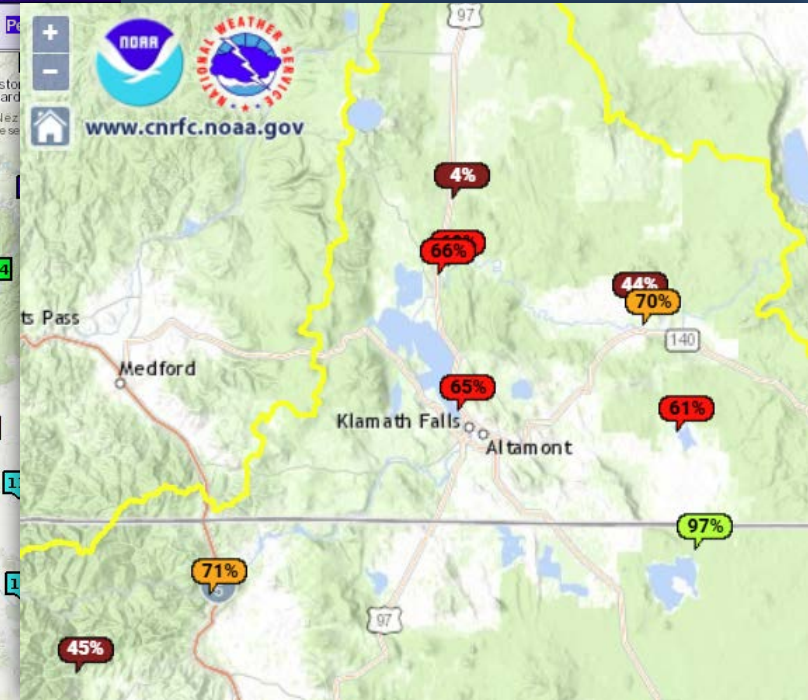
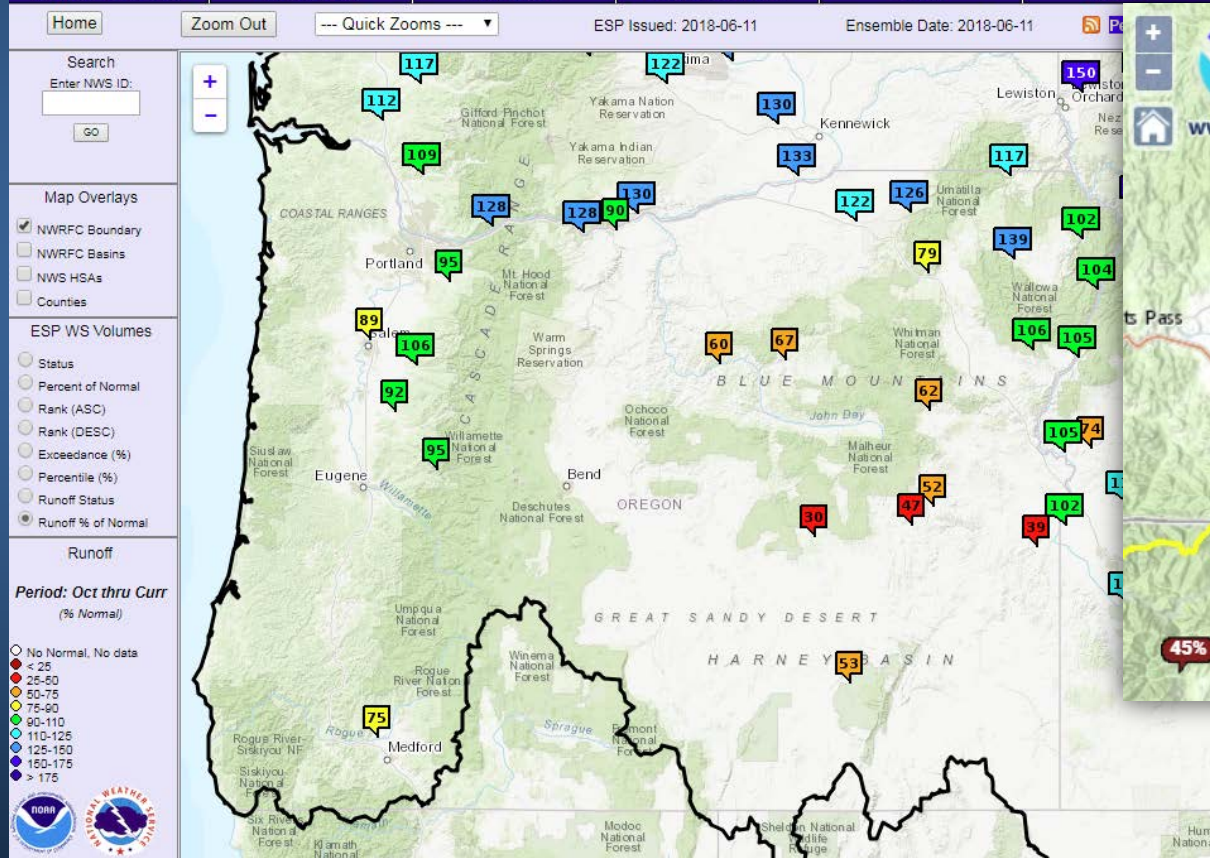
% of Average for Oct 1, 2017 - June 10, 2018



Northwest River Forecast Center Observed Water Year Runoff



- River and Hydrology
- Water Supply
- Observations
- Weather Forecasts
- Climate
- NWRFC



Source: www.nwrfc.noaa.gov & www.cnrfc.noaa.gov

Surface Water Conditions Report

Water Supply Availability Committee



Ken Stahr
Oregon Water Resources
Department
June 12, 2018

Percent of Average Streamflow Month of May, 2018

Percent of Average Stream flow

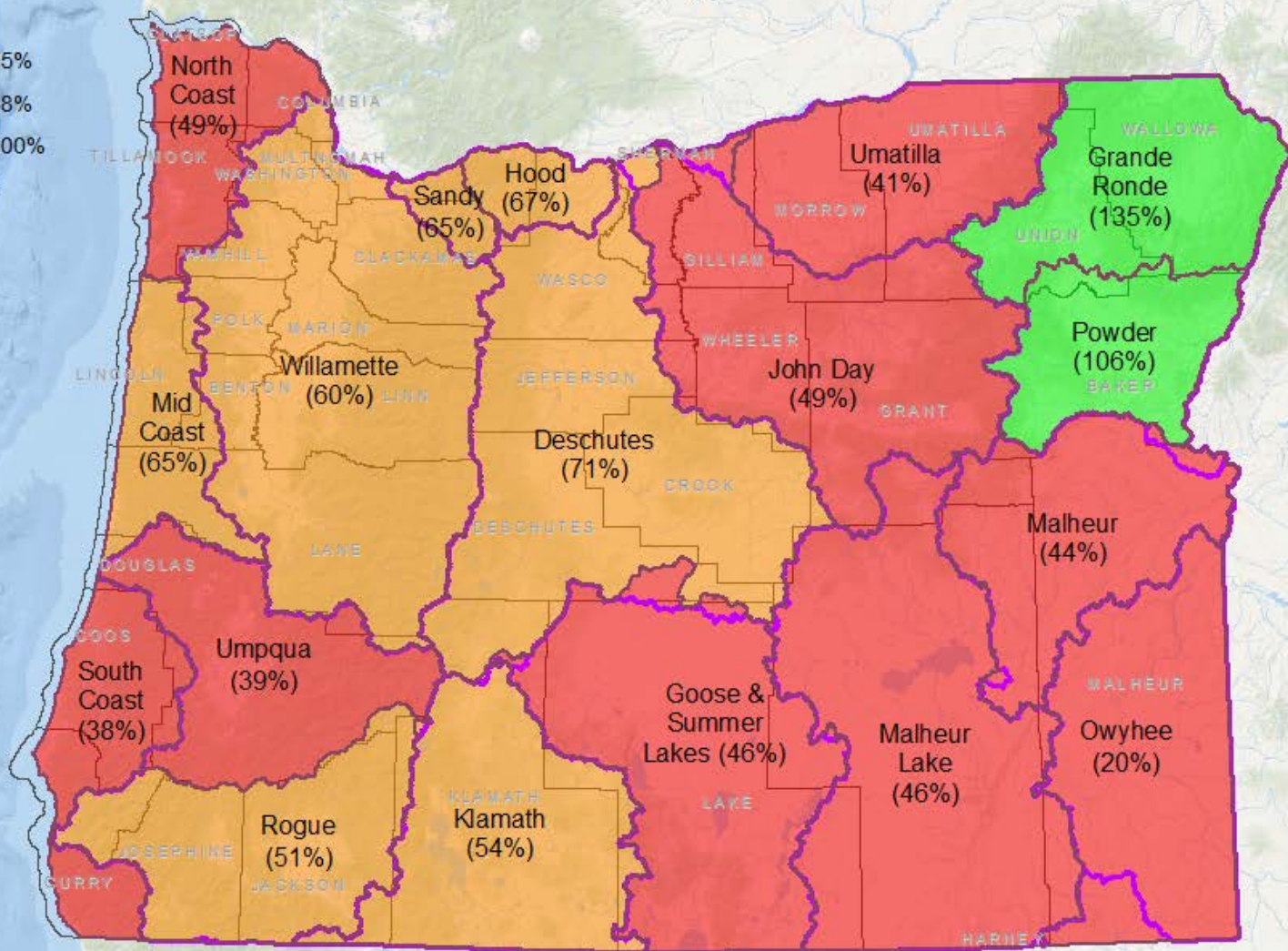
WRD Basin

- < 50%
- 50% - 75%
- 76% - 88%
- 89% - 100%
- > 100%

NRCS Basin

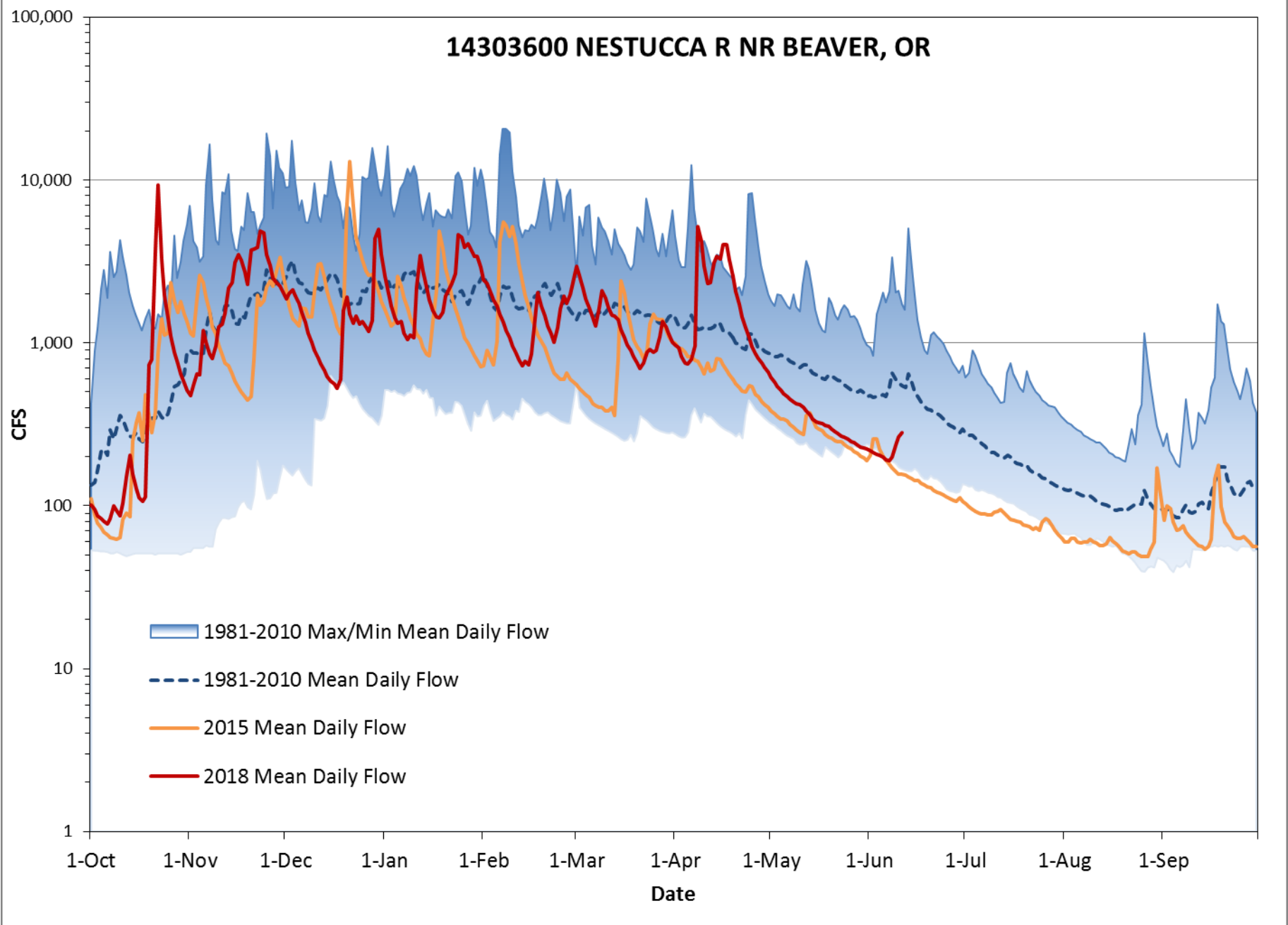


County

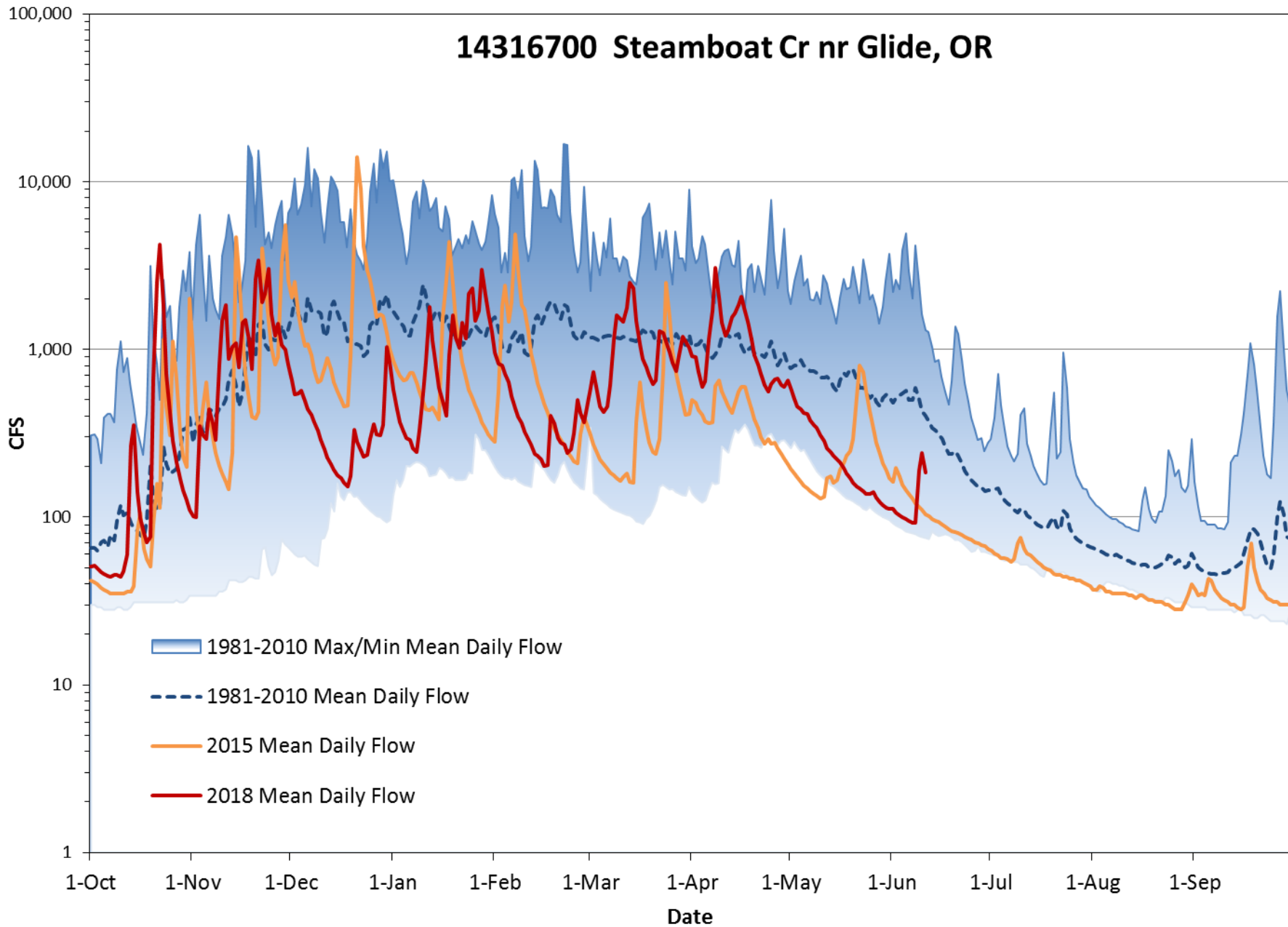


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

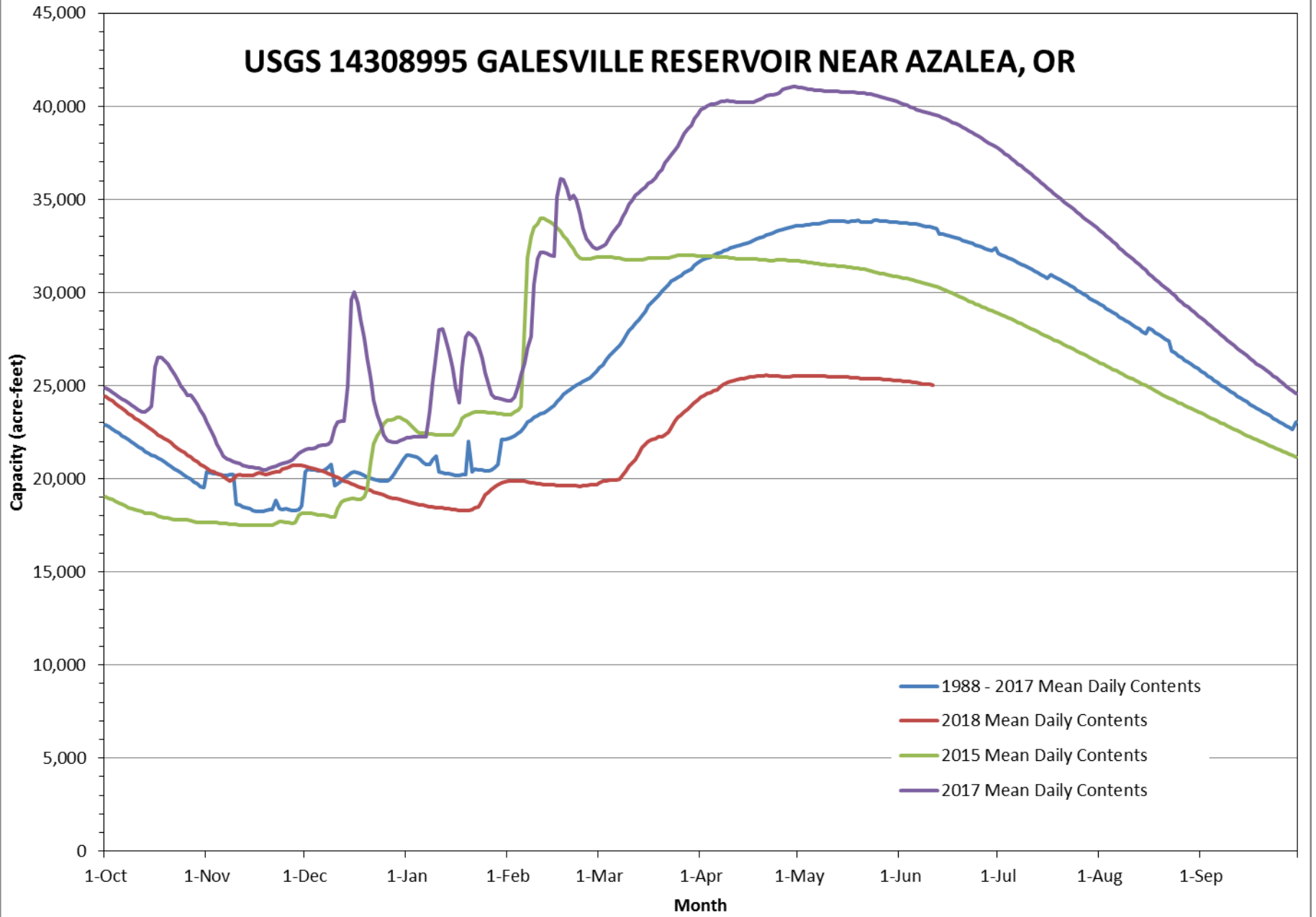
14303600 NESTUCCA R NR BEAVER, OR



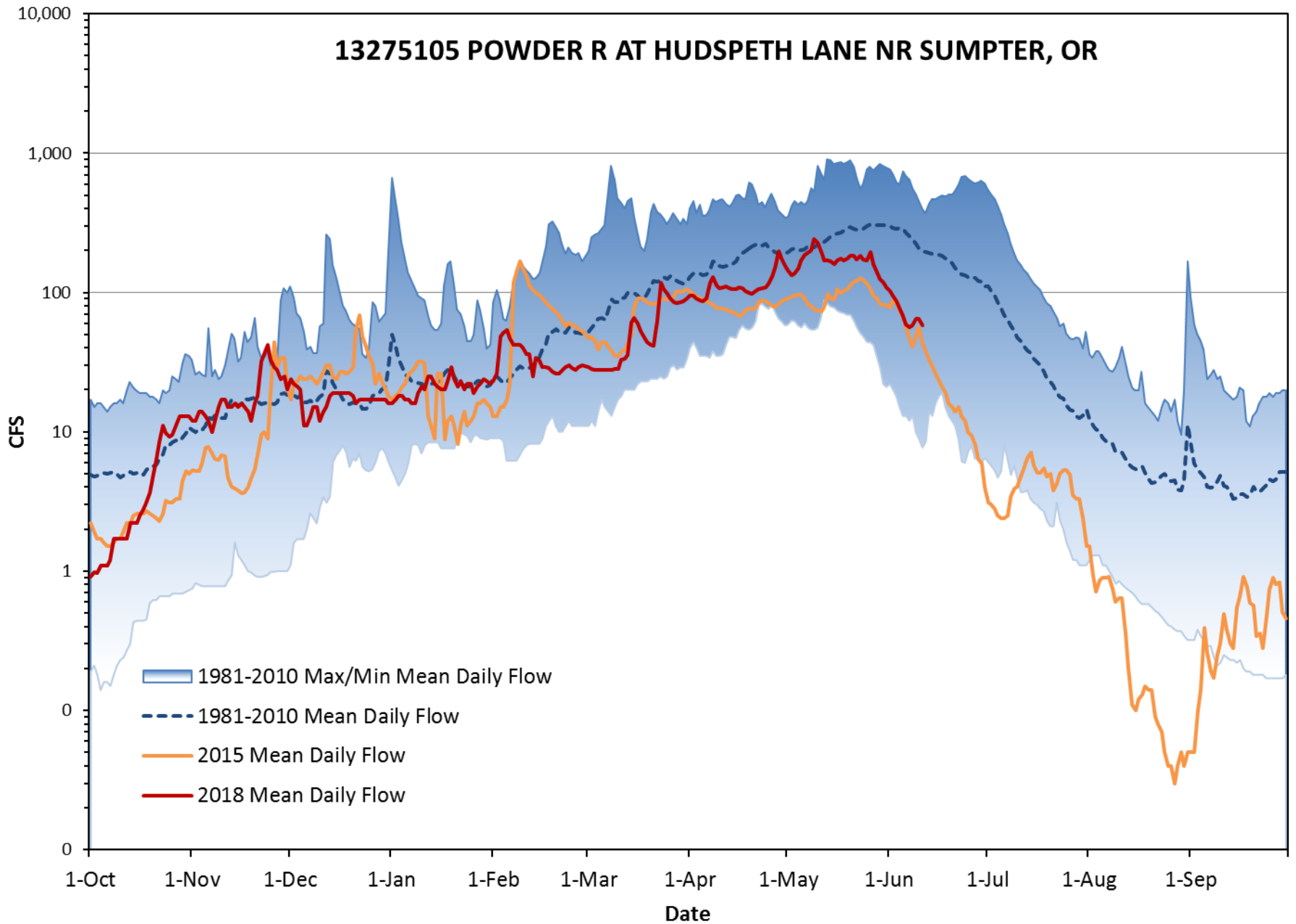
14316700 Steamboat Cr nr Glide, OR



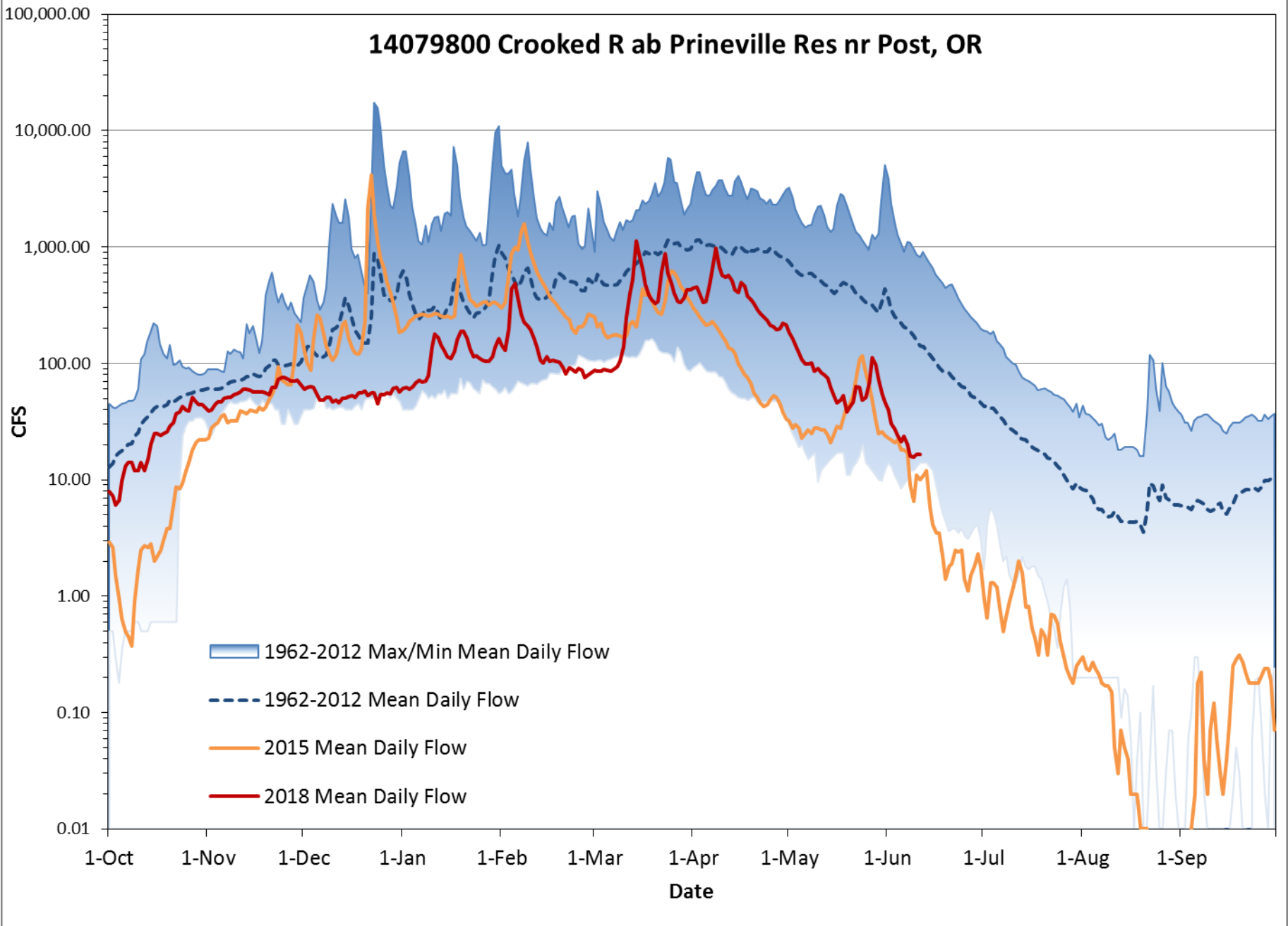
USGS 14308995 GALESVILLE RESERVOIR NEAR AZALEA, OR



13275105 POWDER R AT HUDSPETH LANE NR SUMPTER, OR



14079800 Crooked R ab Prineville Res nr Post, OR



OREGON



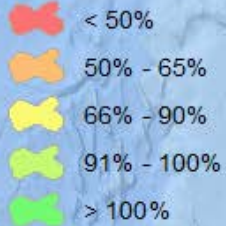
WATER RESOURCES
DEPARTMENT

Thank you.

Reservoir Storage Summary for the end of May, 2018

Percent of Average Storage

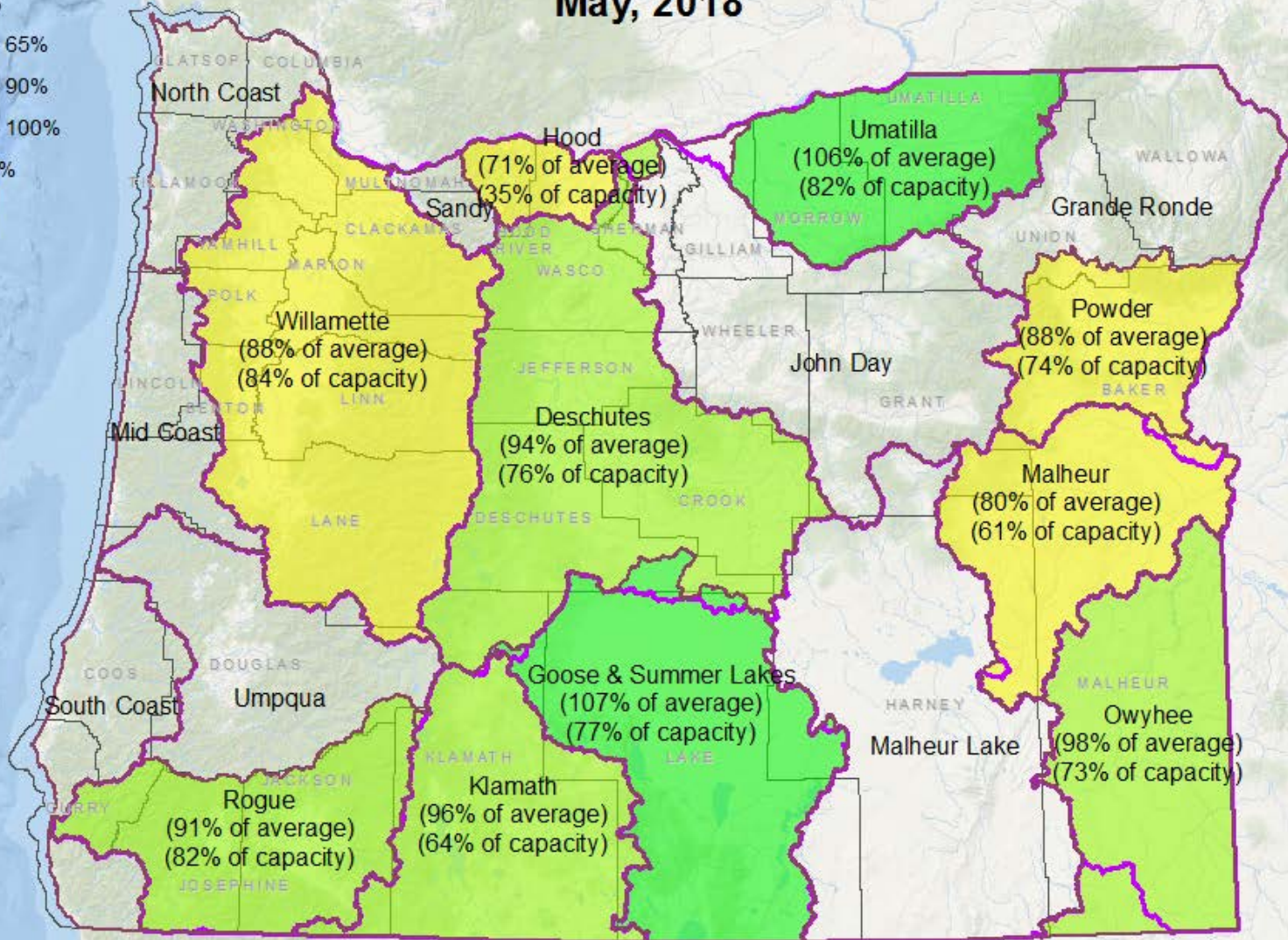
WRD Basin



NRCS Basin



County



NRCS Basinwide Summary: June 1, 2018
(averages based on 1981-2010 reference period)



Oregon Water Supply Availability

June 2018

USGS Update on Surface Water Conditions

Marc Stewart & Carrie Boudreau

USGS ORWSC

Provisional Data Statement

Data are provisional and subject to revision until they have been thoroughly reviewed and received final approval.

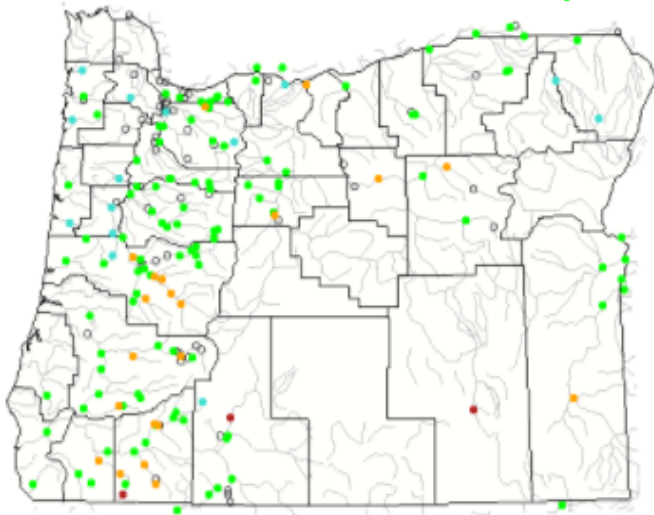
Oregon Map of 28-day average streamflow compared to historical streamflow for the day of the year

Map of 28-day average streamflow compared to historical streamflow for the day of the year (Oregon)

Oregon or Water-Resources Regions

Monday, May 14, 2018

From
May 15



Search USGS streamgage

Choose a data retrieval option and select a location on the map
 List of all stations Single station Nearest stations

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

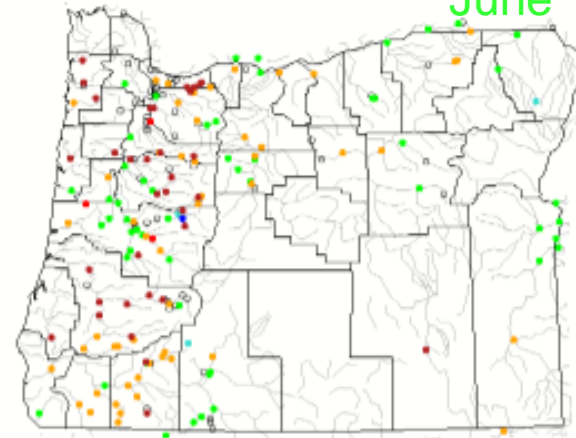
Map | HUC Map | Map (HCDN) | Summary Table | Web Map

Map of 28-day average streamflow compared to historical streamflow for the day of the year (Oregon)

Oregon or Water-Resources Regions

Monday, June 11, 2018

From
June 12



Search USGS streamgage

Choose a data retrieval option and select a location on the map
 List of all stations Single station Nearest stations

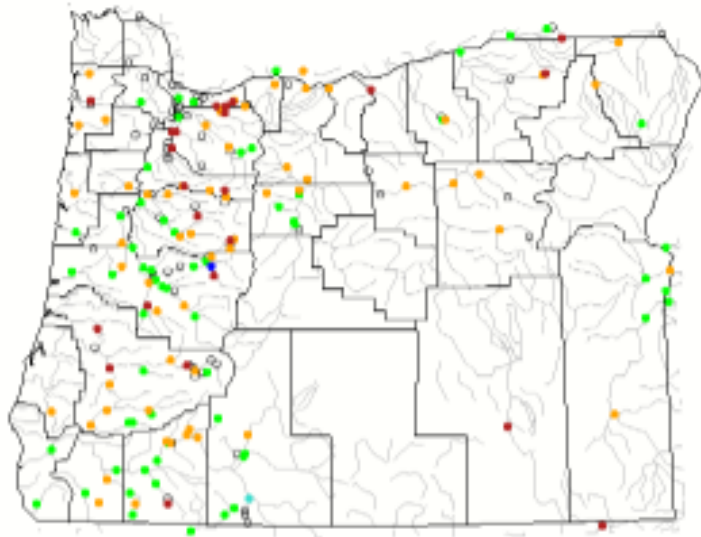
Explanation - Percentile classes							
●	●	●	●	●	●	○	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Oregon Map of 7-day average streamflow compared to historical streamflow for the day of the year

Map of 7-day average streamflow compared to historical streamflow for the day of the year (Oregon)

Oregon or Water-Resources Regions All Days

Monday, June 11, 2018



Search USGS streamgage

Choose a data retrieval option and select a location on the map

- List of all stations
- Single station
- Nearest stations

Explanation - Percentile classes

Color	Percentile Class	Description
Red	<10	Low
Dark Red	Much below	
Orange	10-24	Below
Yellow	25-75	Normal
Light Green	76-90	Above
Dark Green	>90	Much above
Black	High	
White	Not-ranked	

WaterWatch: Water Resources Conditions

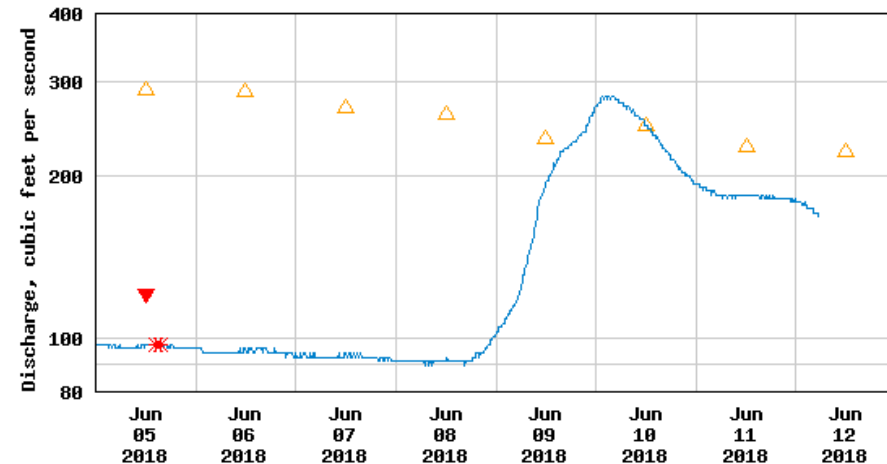
Summary Hydrograph Peak Forecast Rating

USGS 14316700 STEAMBOAT CREEK NEAR GLIDE, OR

Drainage area:	227 mi ²
Discharge:	141.53 cfs
Date:	2018-06-11
No. of days:	7
Percentile:	14.41 %
Length of Record:	60 years
Class symbol:	●
% normal (median):	53.77 %
% normal (mean):	35.19 %

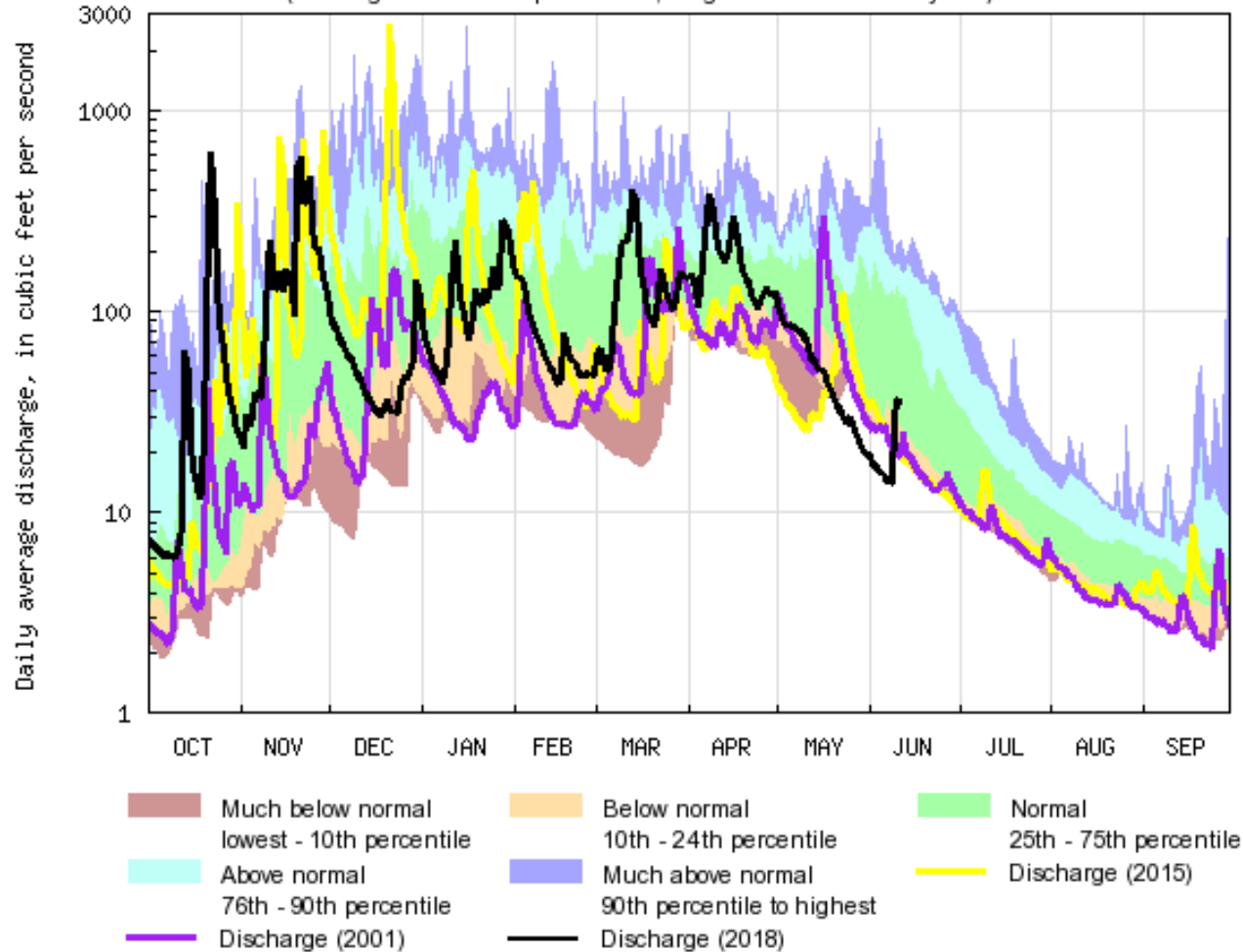


USGS 14316700 STEAMBOAT CREEK NEAR GLIDE, OR



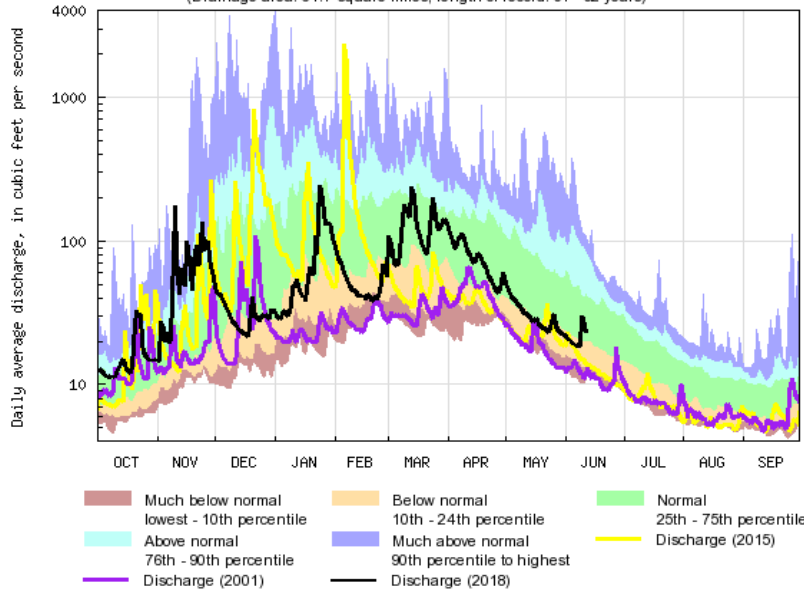
ROGUE/UMPQUA BASIN

USGS 14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR
(Drainage area: 30.4 square miles, length of record: 19 - 20 years)



ROGUE/UMPQUA BASIN

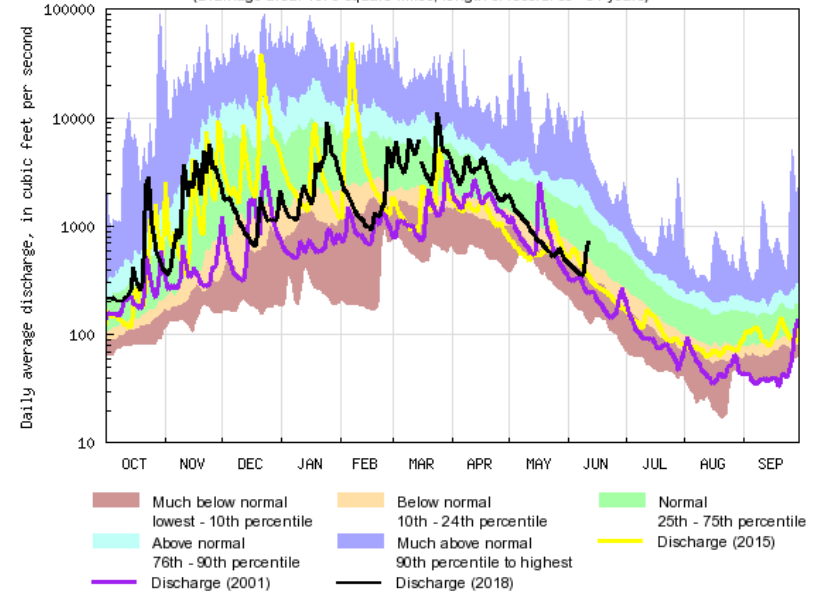
USGS 14308900 COW CREEK ABV GALESVILLE RES, NR AZALEA, OR.
(Drainage area: 64.7 square miles, length of record: 31 - 32 years)



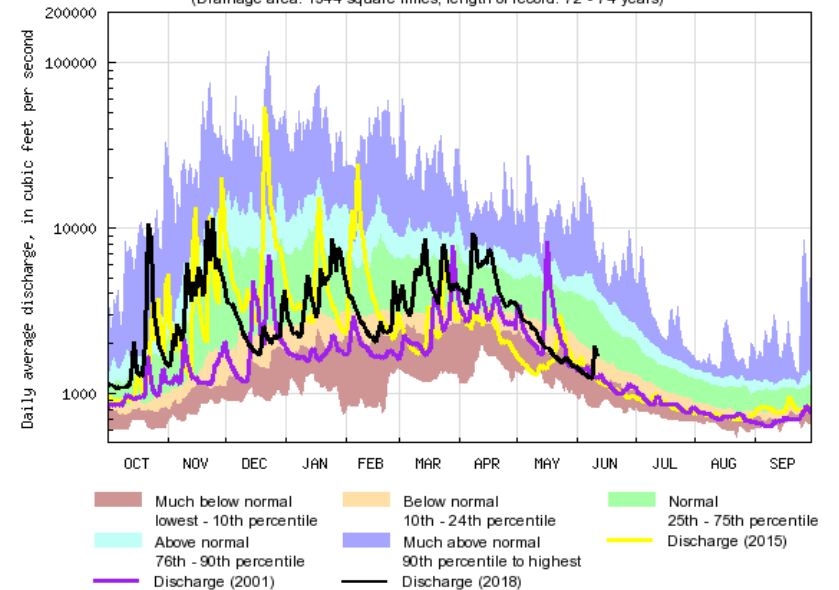
USGS WaterWatch

Last updated: 2018-06-12

USGS 14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR
(Drainage area: 1670 square miles, length of record: 83 - 84 years)



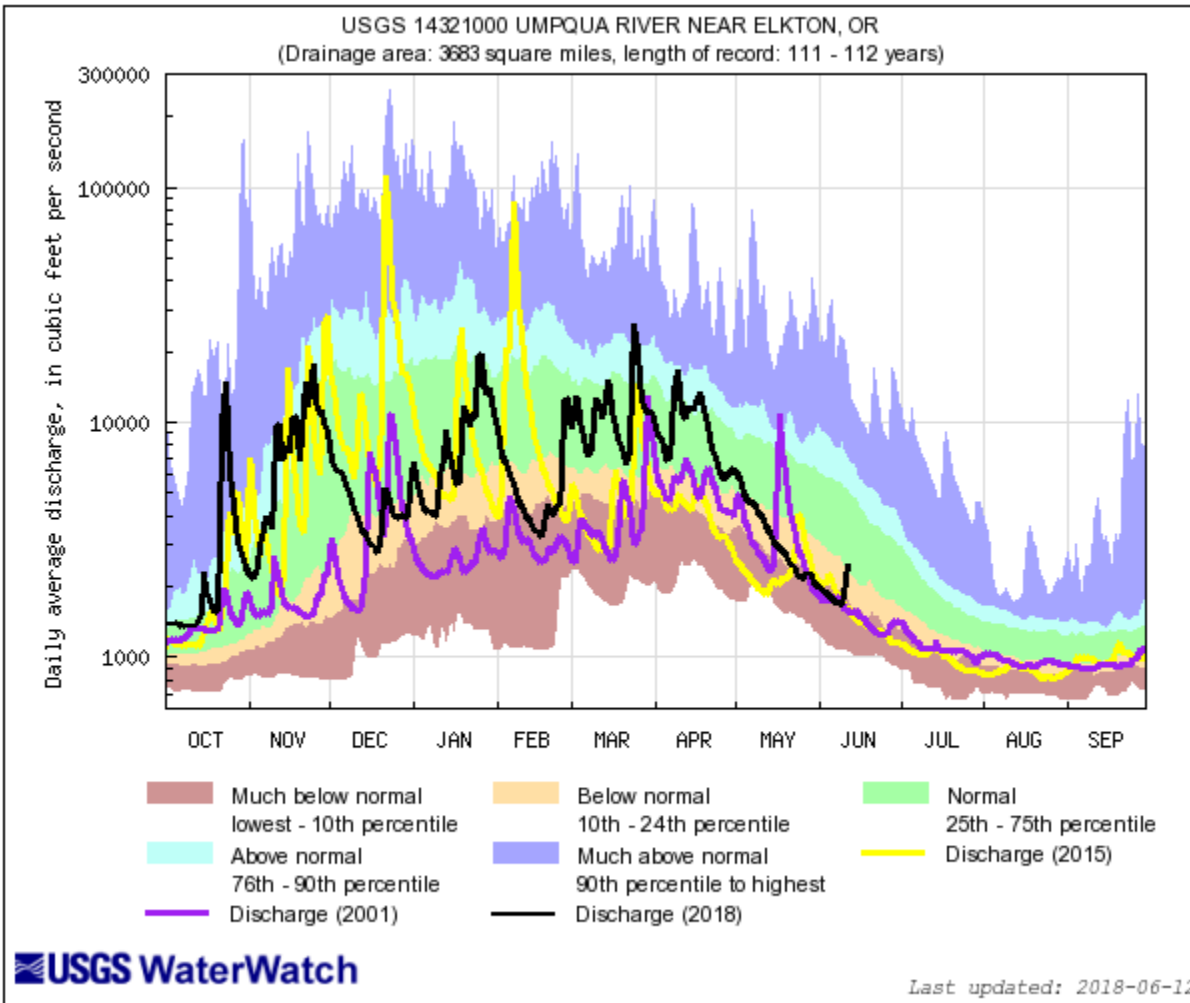
USGS 14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR
(Drainage area: 1344 square miles, length of record: 72 - 74 years)



USGS WaterWatch

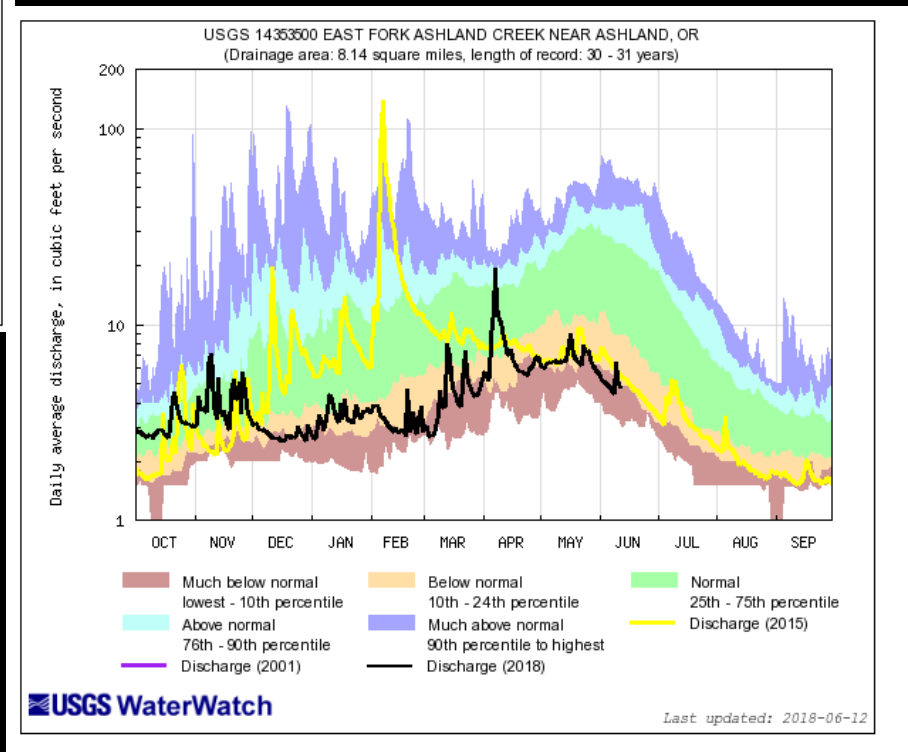
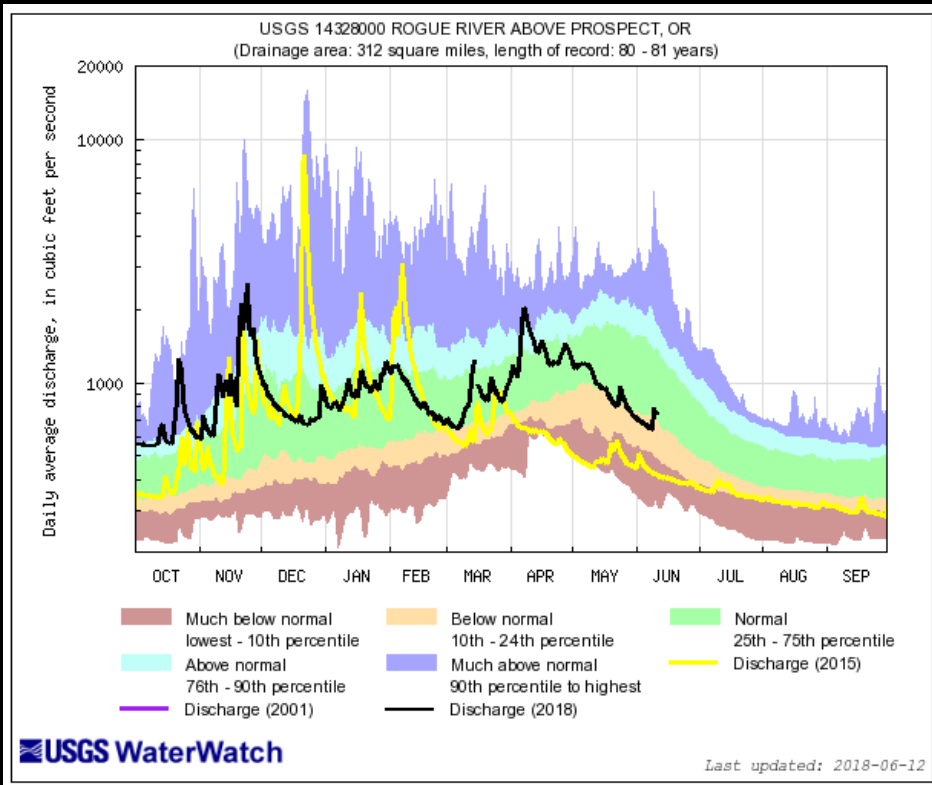


ROGUE/UMPQUA BASIN



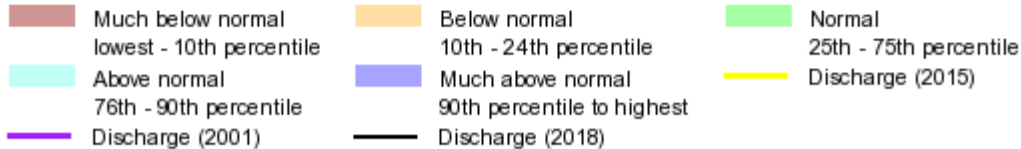
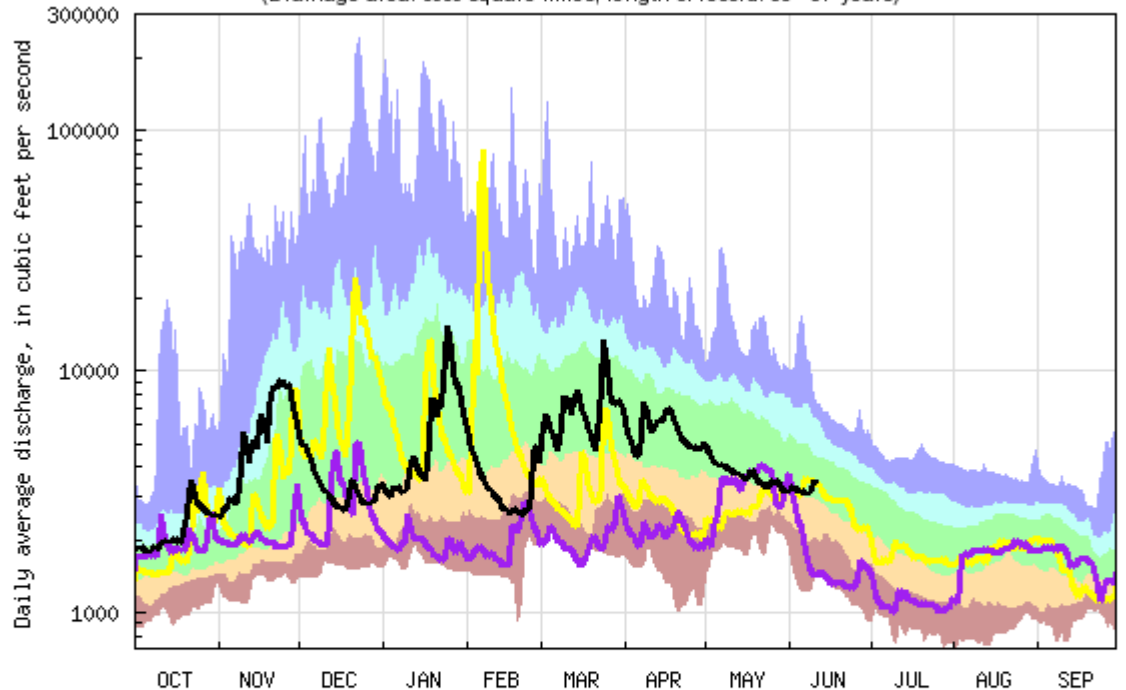
Flow was 55% of Average
For May.

ROGUE/UMPQUA BASIN



ROGUE/UMPQUA BASIN

USGS 14372300 ROGUE RIVER NEAR AGNESS, OR
(Drainage area: 3939 square miles, length of record: 56 - 57 years)



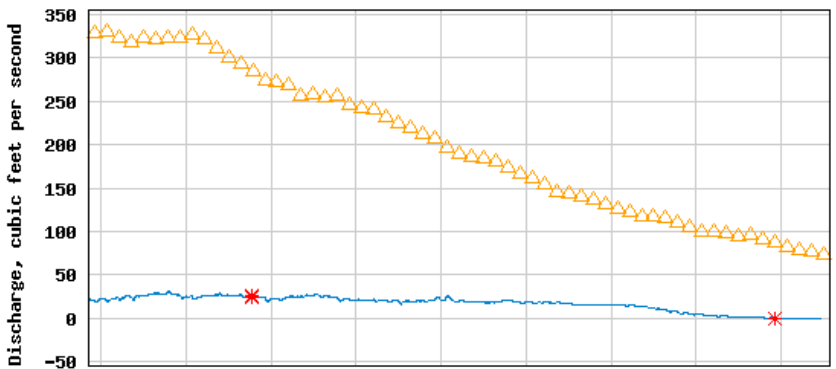
USGS WaterWatch

Last updated: 2018-06-12

May monthly Avg. flow
69% of Average for April
(1981-2010)

KLAMATH BASIN 11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR

USGS 11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR

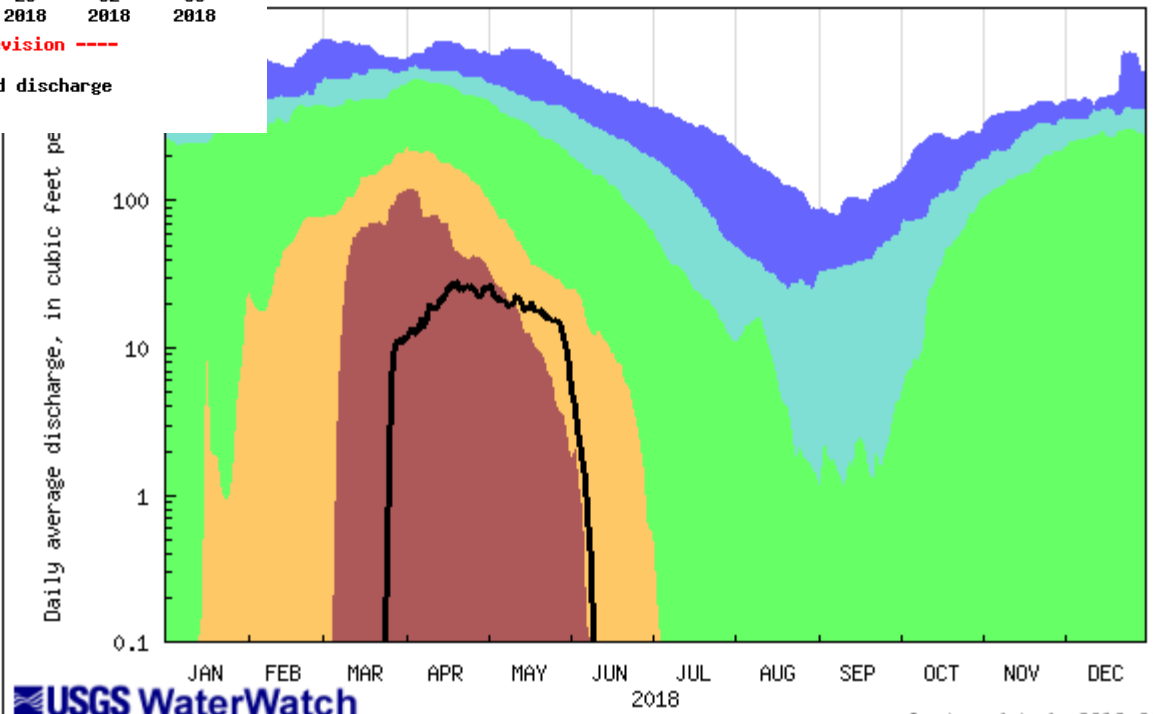


Apr 14 2018 Apr 21 2018 Apr 28 2018 May 05 2018 May 12 2018 May 19 2018 May 26 2018 Jun 02 2018 Jun 09 2018

----- Provisional Data Subject to Revision -----

△ Median daily statistic (60 years) * Measured discharge
— Discharge

USGS 11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR
(Drainage area: 1290 square miles, length of record: 59 - 60 years)



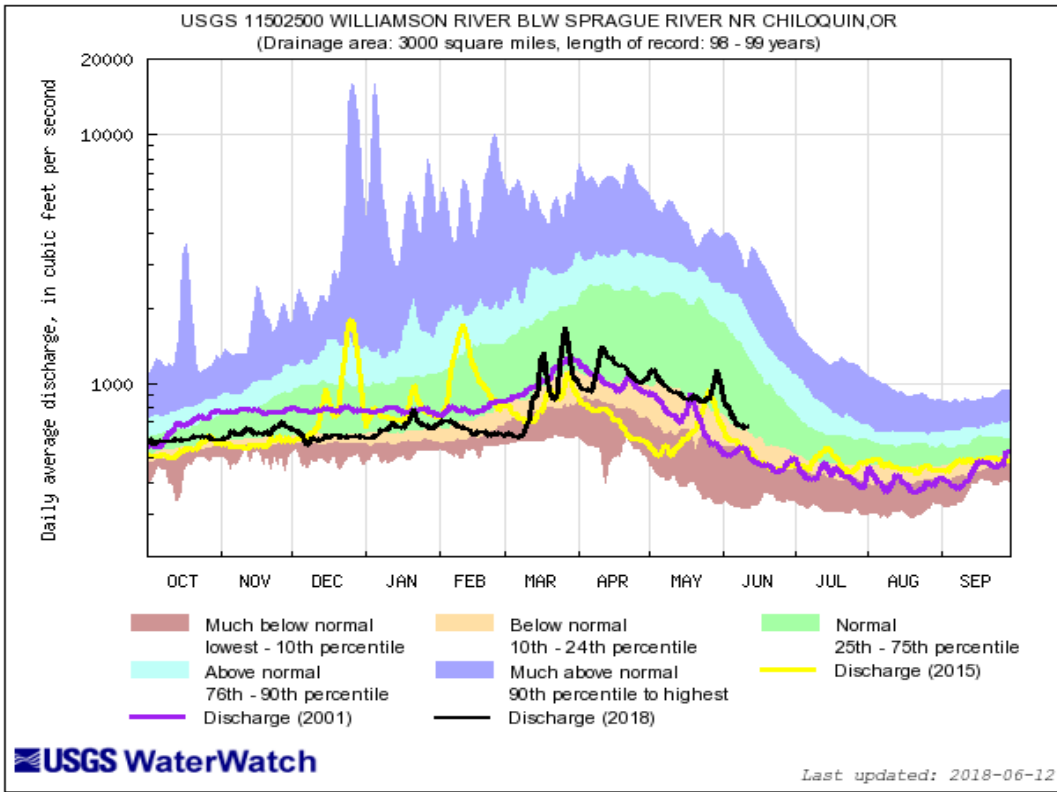
USGS WaterWatch

2018

Last updated: 2018-06-12



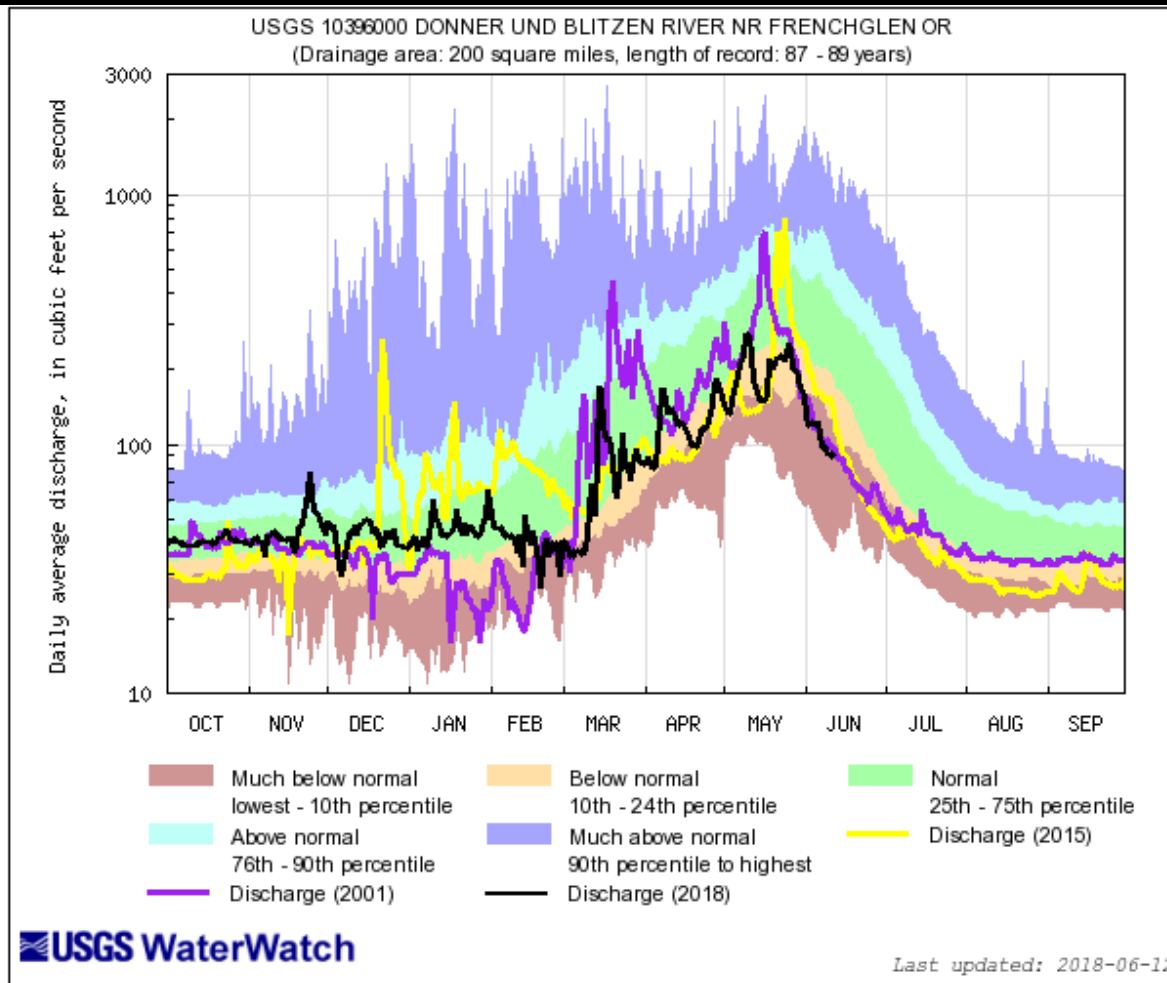
KLAMATH BASIN



Note flow increase early June
not from recent event

* May 61% Avg.

DONNER BLITZEN & HARNEY BASIN

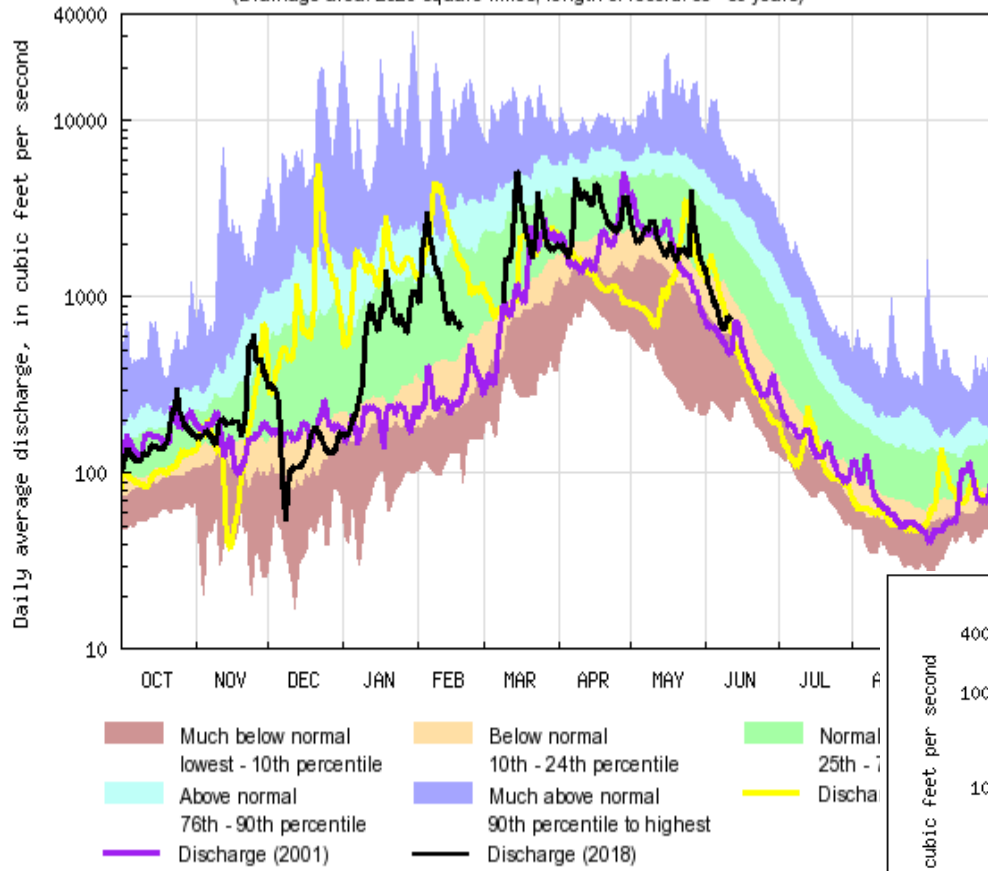


46% Avg. flow
May

Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile - highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

UPPER JOHN DAY

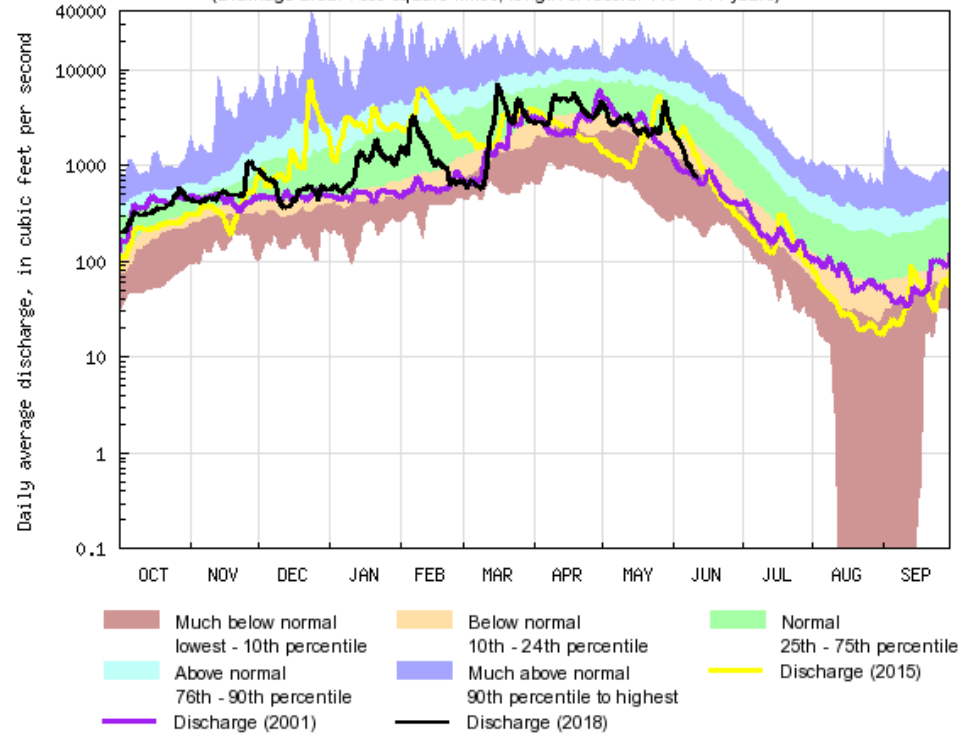
USGS 14046000 NORTH FORK JOHN DAY RIVER AT MONUMENT, OR
(Drainage area: 2520 square miles, length of record: 88 - 89 years)



USGS WaterWatch

Last updated

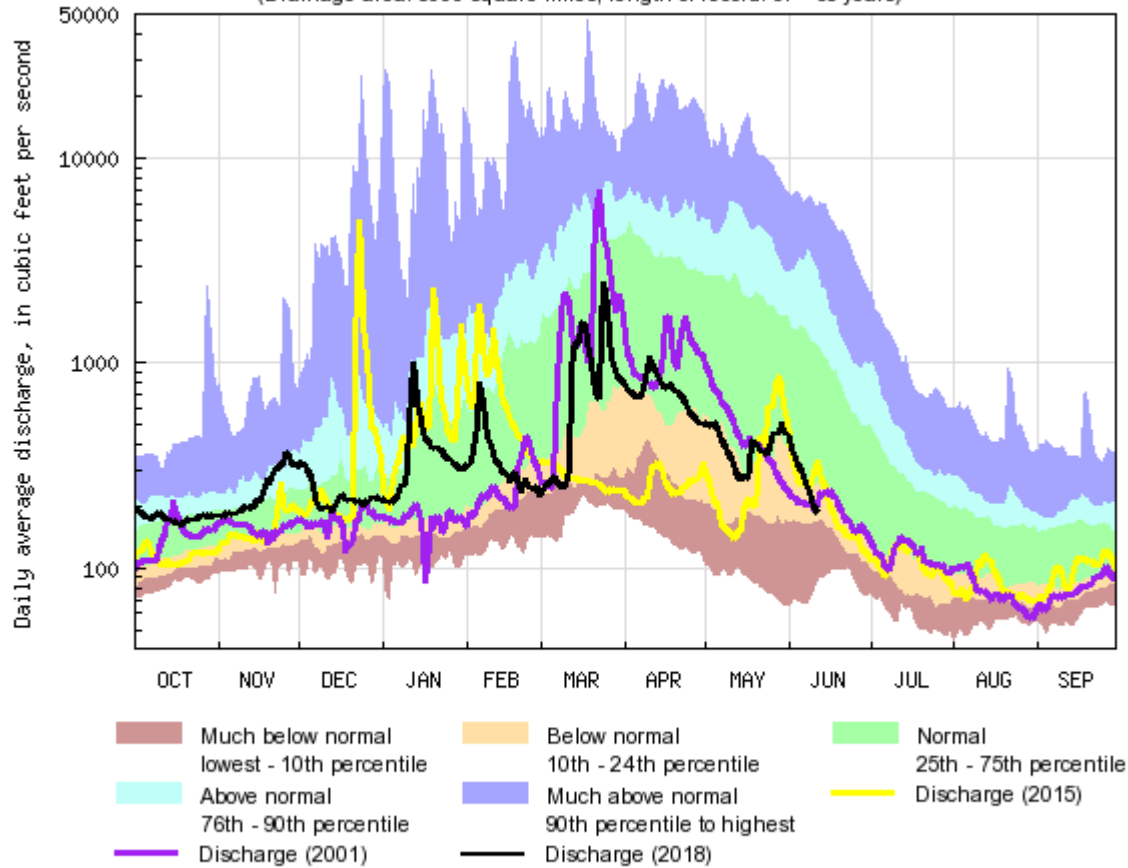
USGS 14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR
(Drainage area: 7580 square miles, length of record: 110 - 111 years)



OWYEE BASIN

USGS 13181000 OWYHEE RIVER NR ROME OR

(Drainage area: 8000 square miles, length of record: 67 - 68 years)

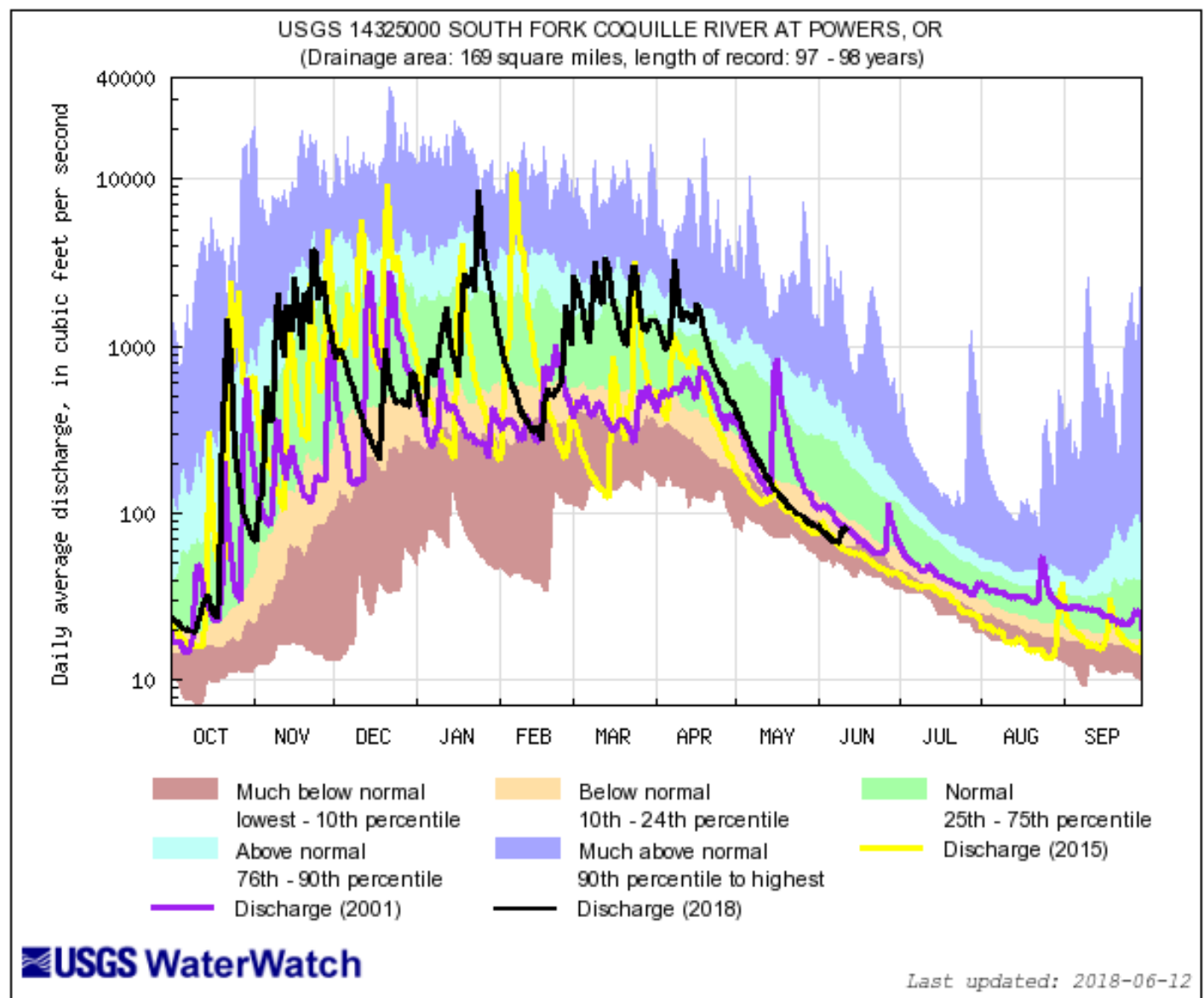


USGS WaterWatch

Last updated: 2018-06-12

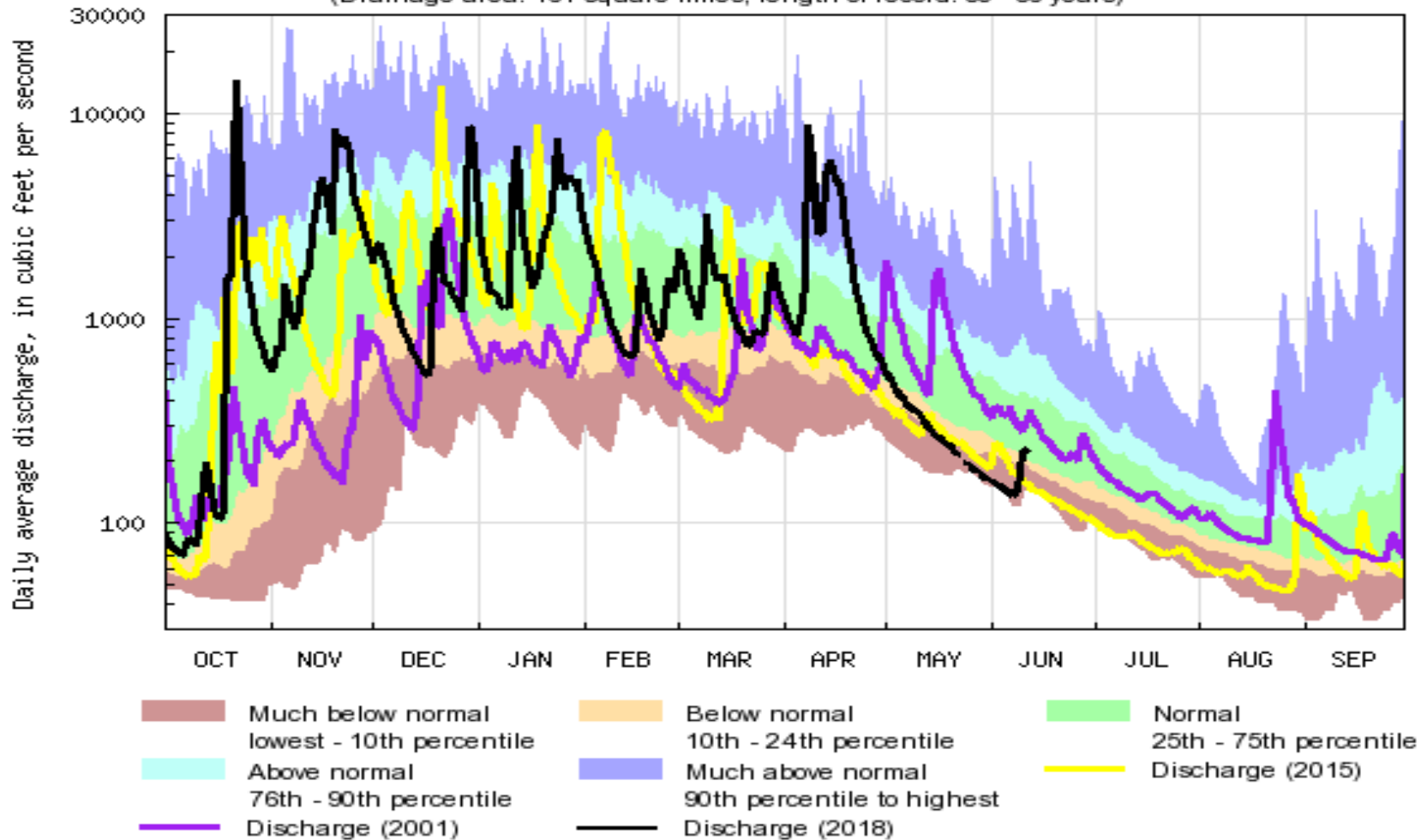
May flow was
27% of Average for
(1981-2010)

SOUTH COAST

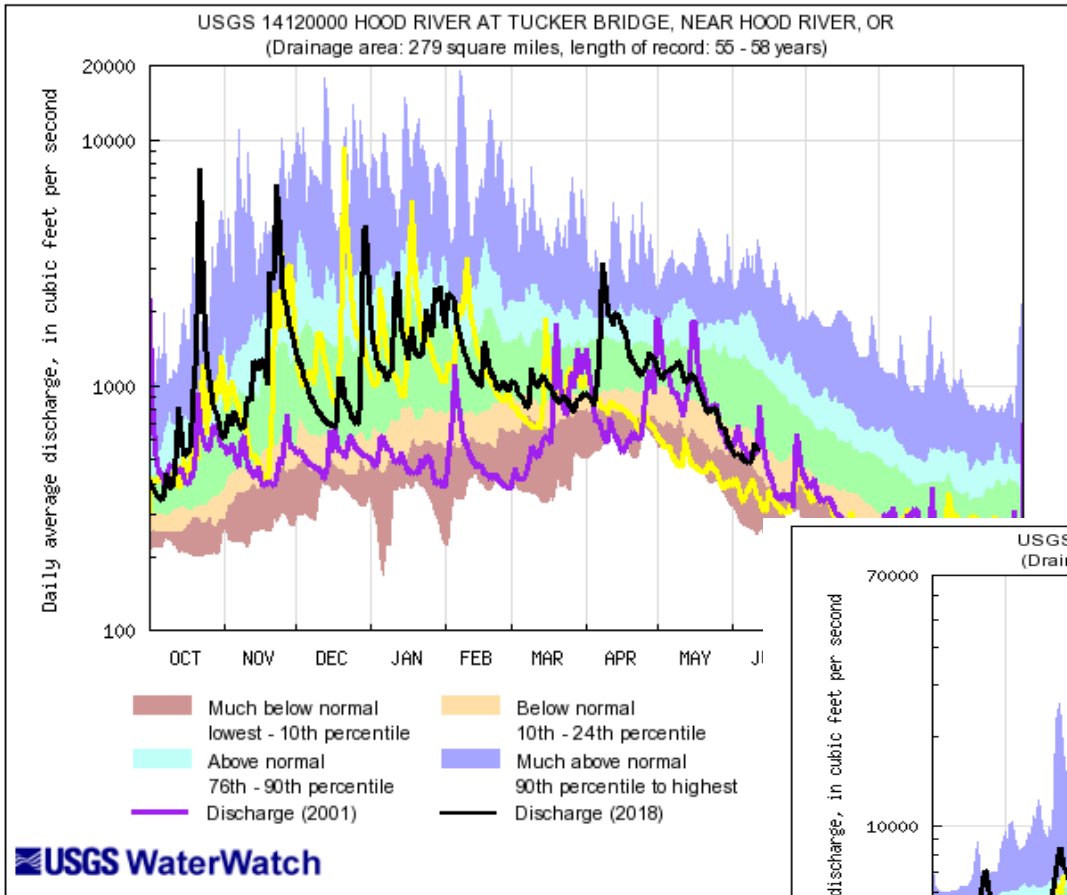


North COAST

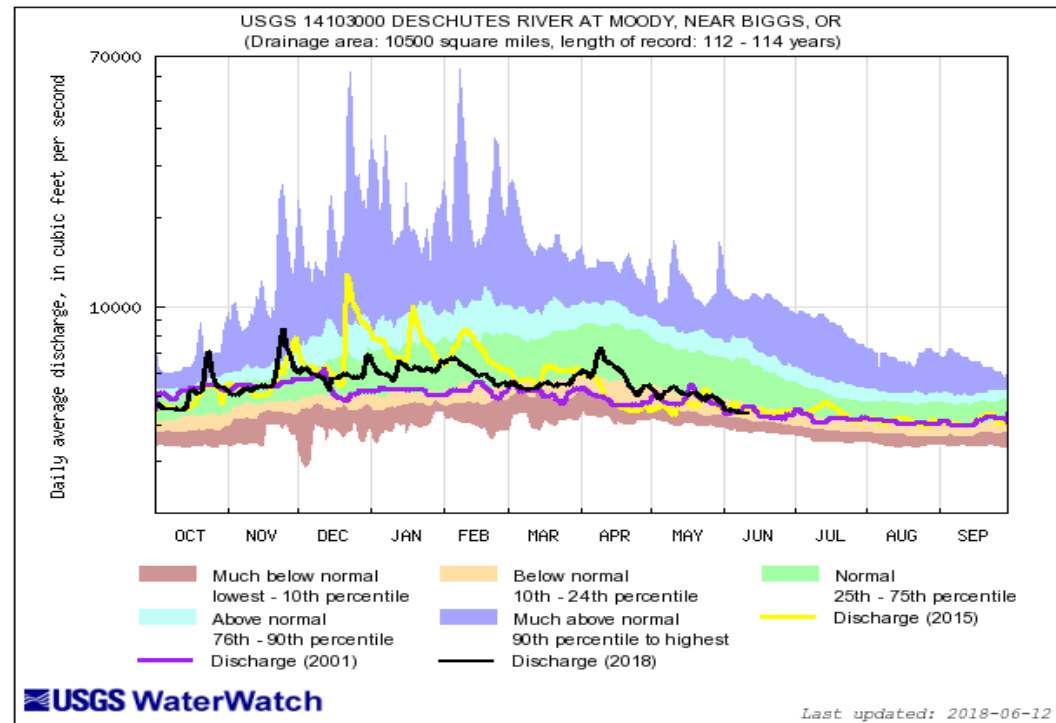
USGS 14301500 WILSON RIVER NEAR TILLAMOOK, OR
(Drainage area: 161 square miles, length of record: 85 - 86 years)



LOWER DESCHUTES / MT HOOD



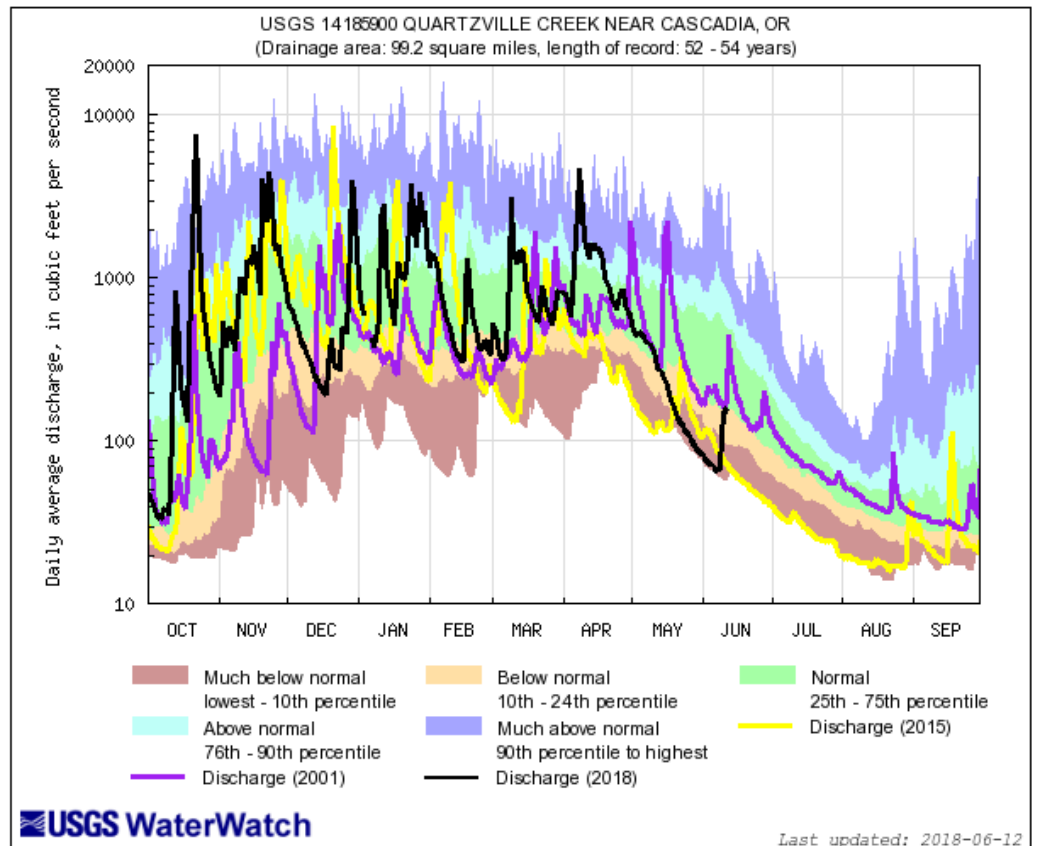
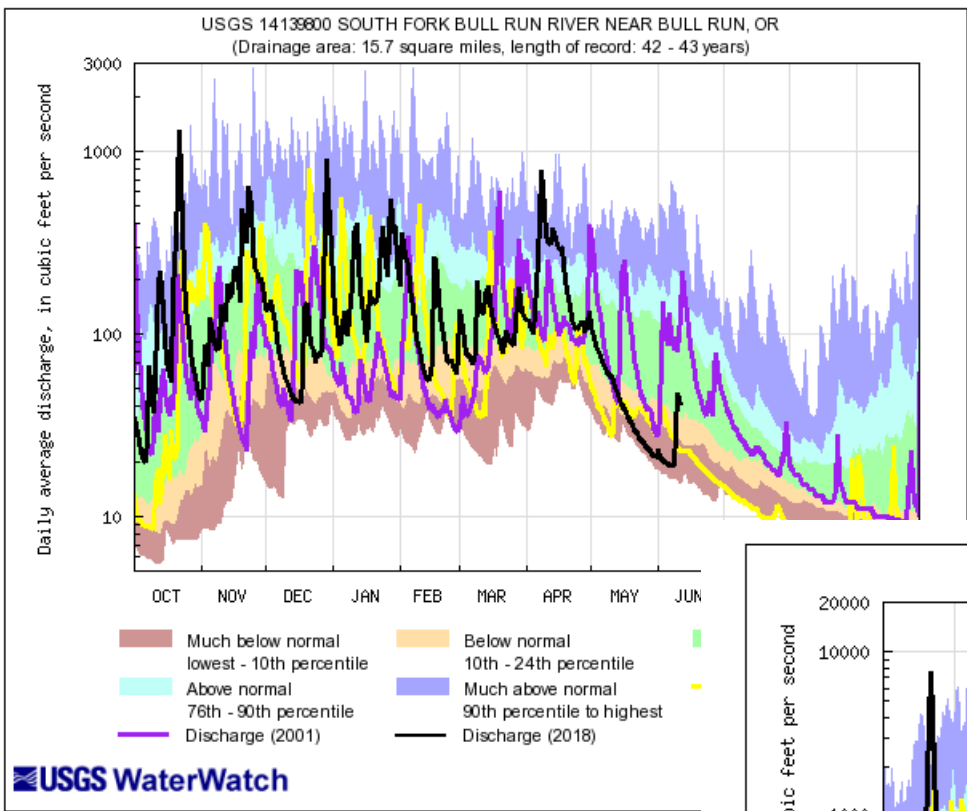
May flows 75% normal



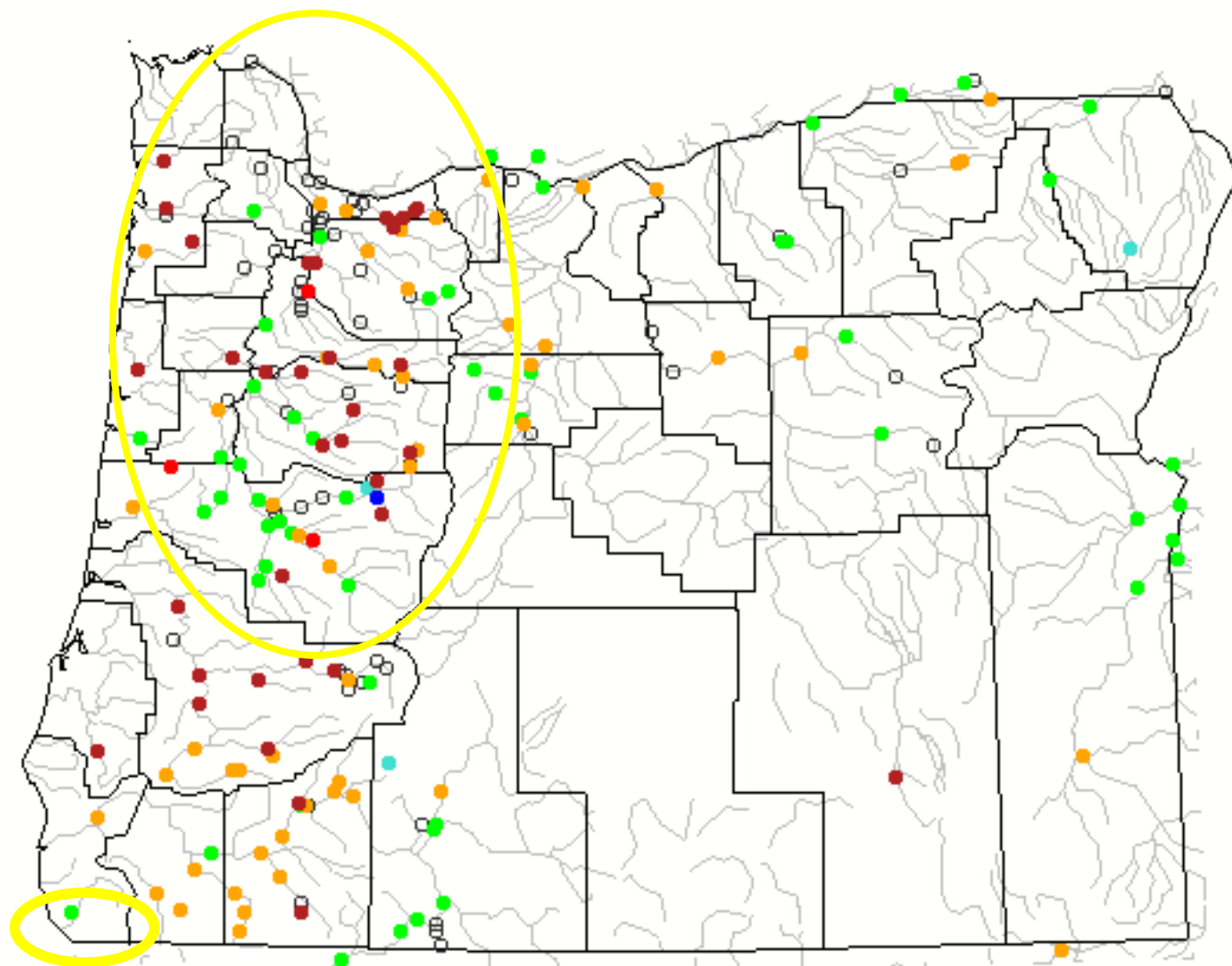
Last updated: 2018-06-12



Other

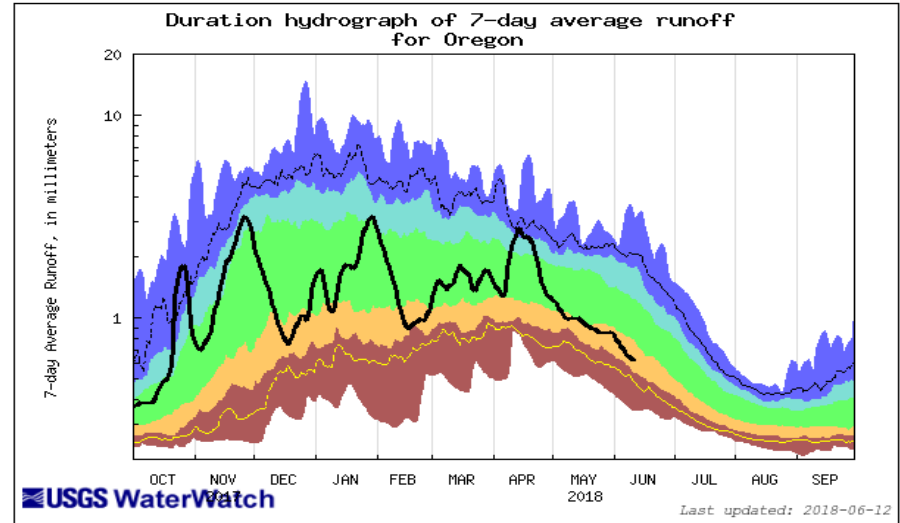


Monday, June 11, 2018



https://or.water.usgs.gov/data_dir/war_dir/

https://waterwatch.usgs.gov/index.php?id=ww_annual_summary



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest	Runoff
Much below Normal	Below normal	Normal	Above normal	Much above normal			

Power Point "USGS Update on Surface Water Conditions"

By: Marc Stewart & Carrie Boudreau
USGS ORWSC

Water Availability Report By: Tiffany Rae
Jacklin USGS ORWSC

Last 45 Days

Oregon

[107 sites]

