

**Oregon Water Supply Availability Committee**  
**July 9, 2019**



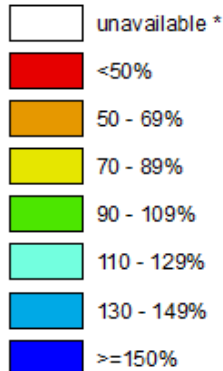
**H. Scott Oviatt**  
**USDA – Natural Resources Conservation Service**  
[scott.oviat@usda.gov](mailto:scott.oviat@usda.gov)  
503-414-3271

# Statewide SNOTEL Precipitation is 93% of normal

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

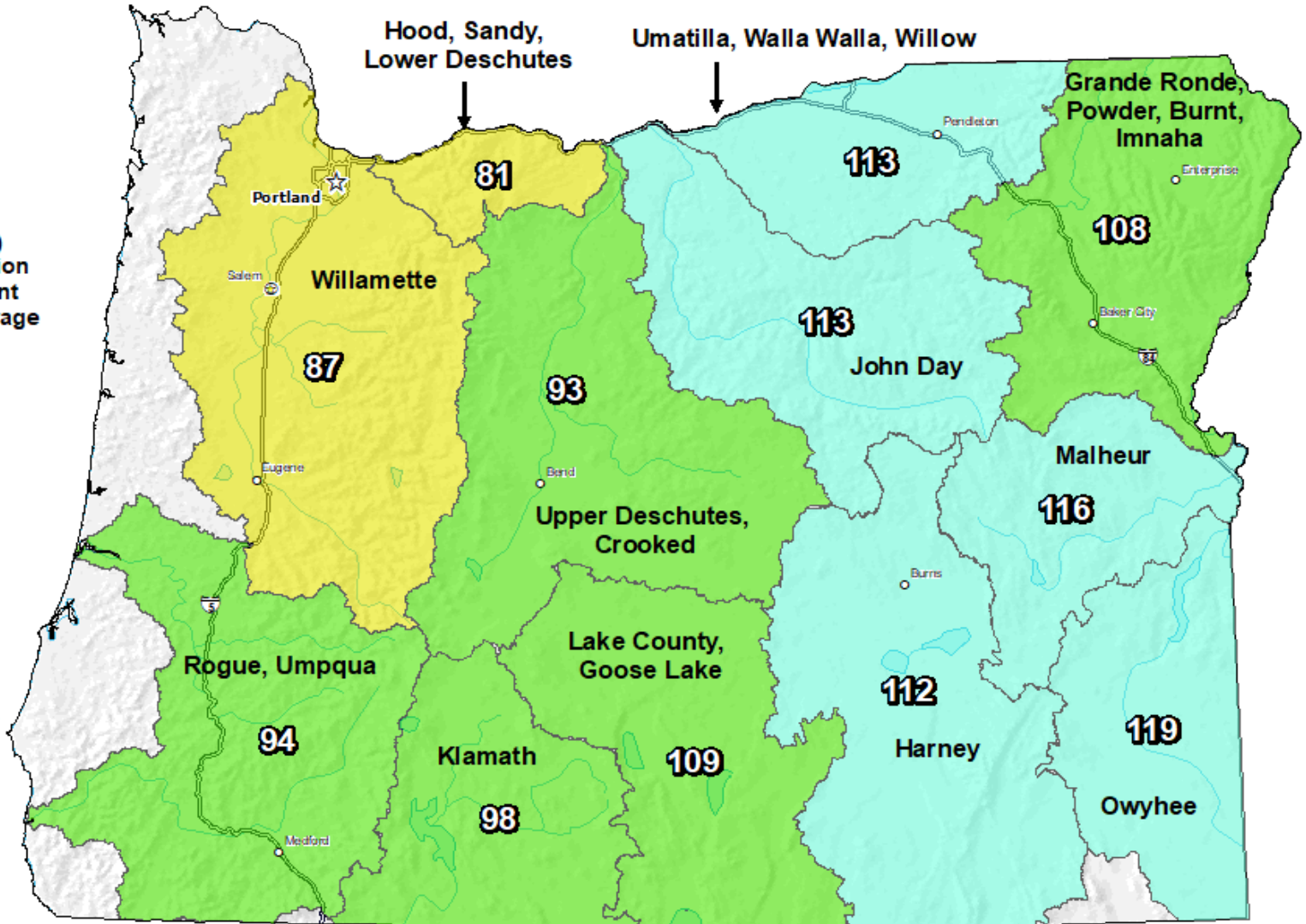
Jul 09, 2019

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

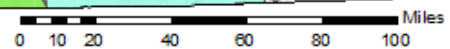


\* Data unavailable at time  
of posting or measurement  
is not representative at this  
time of year

*Provisional Data  
Subject to Revision*

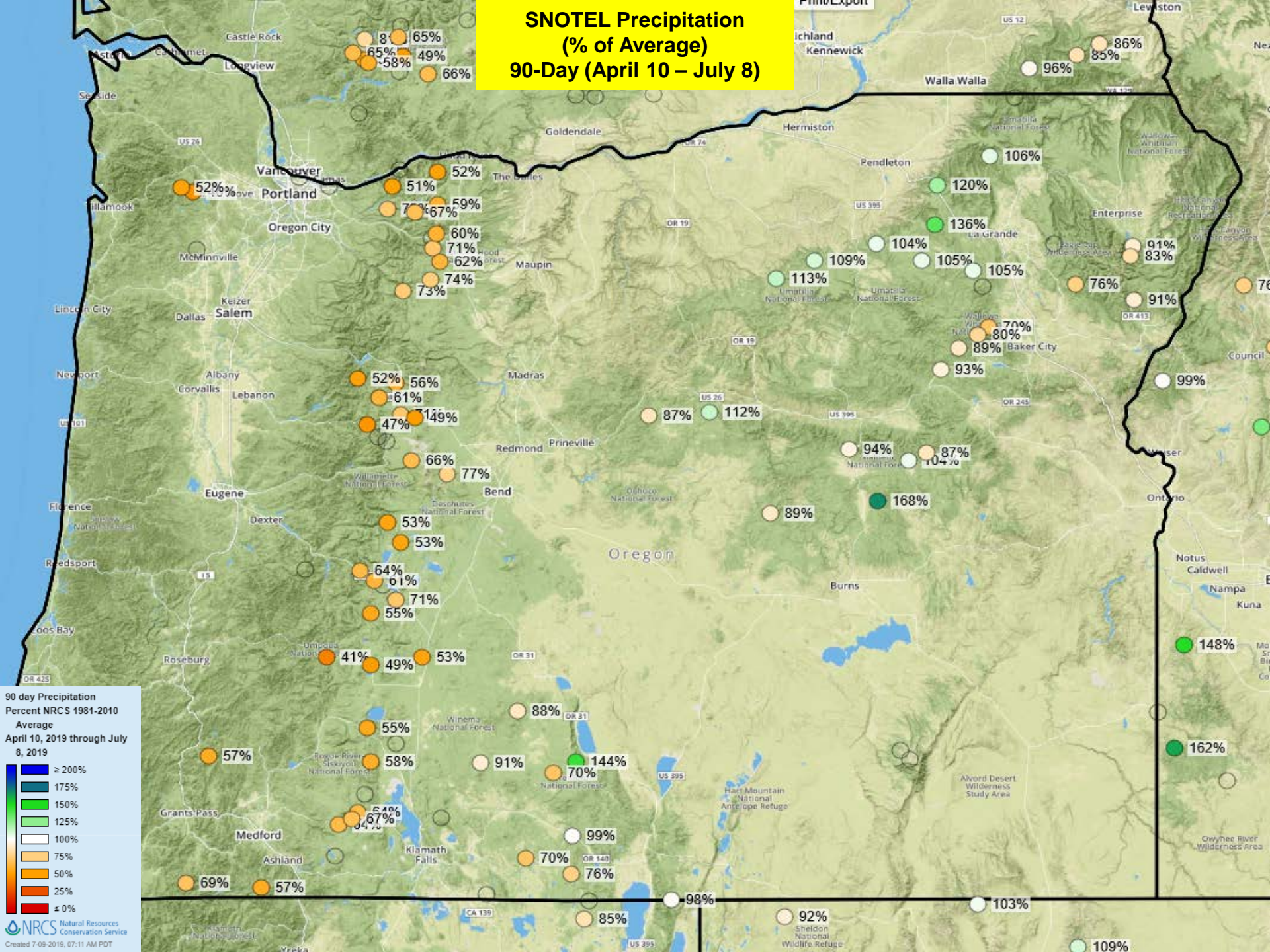


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).



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

# SNOTEL Precipitation (% of Average) 90-Day (April 10 – July 8)

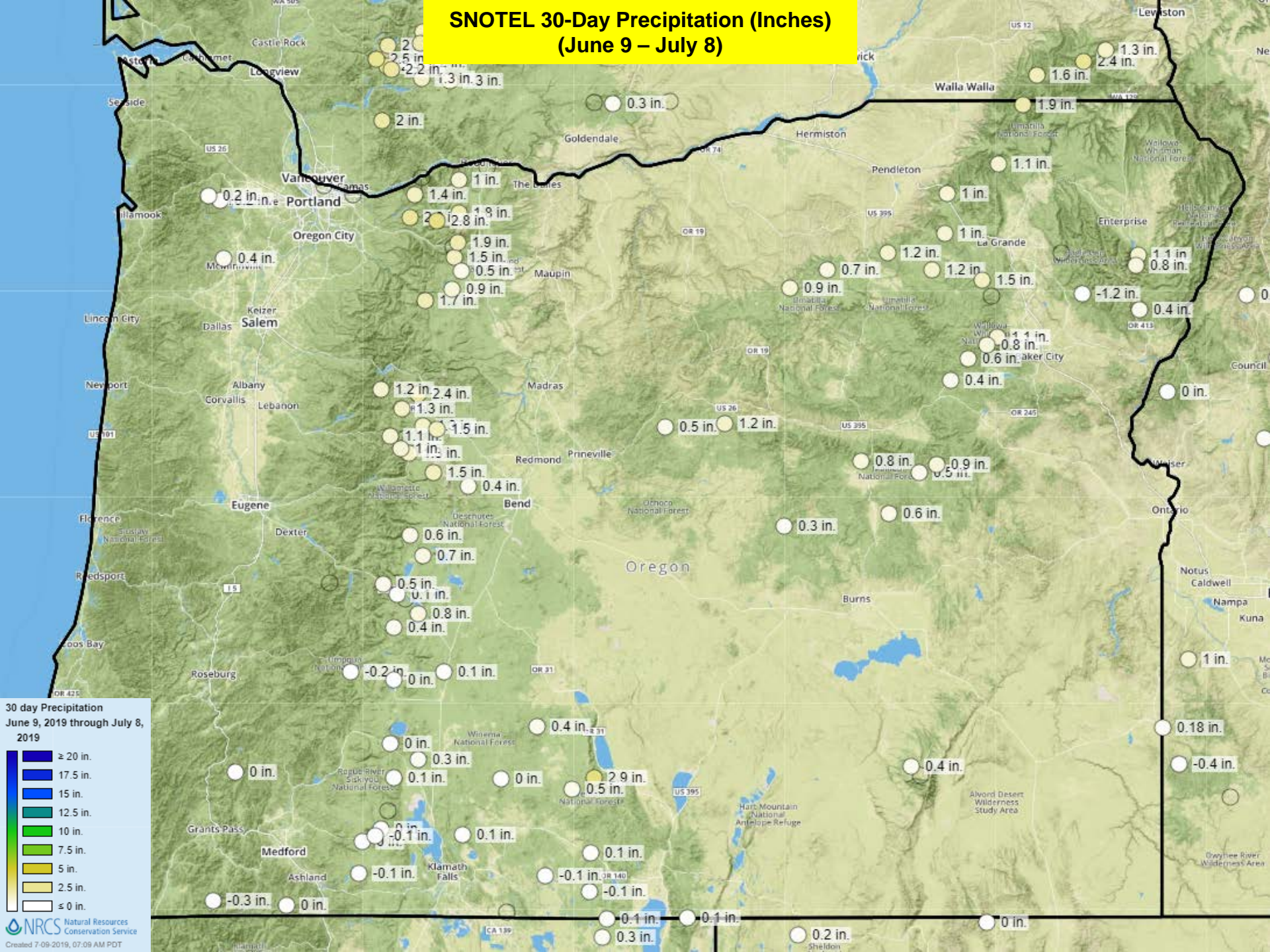


**90 day Precipitation**  
Percent NRCS 1981-2010  
Average  
April 10, 2019 through July  
8, 2019

- ≥ 200%
- 175%
- 150%
- 125%
- 100%
- 75%
- 50%
- 25%
- ≤ 0%

**NRCS** Natural Resources  
Conservation Service  
Created 7-09-2019, 07:11 AM PDT

# SNOTEL 30-Day Precipitation (Inches) (June 9 – July 8)



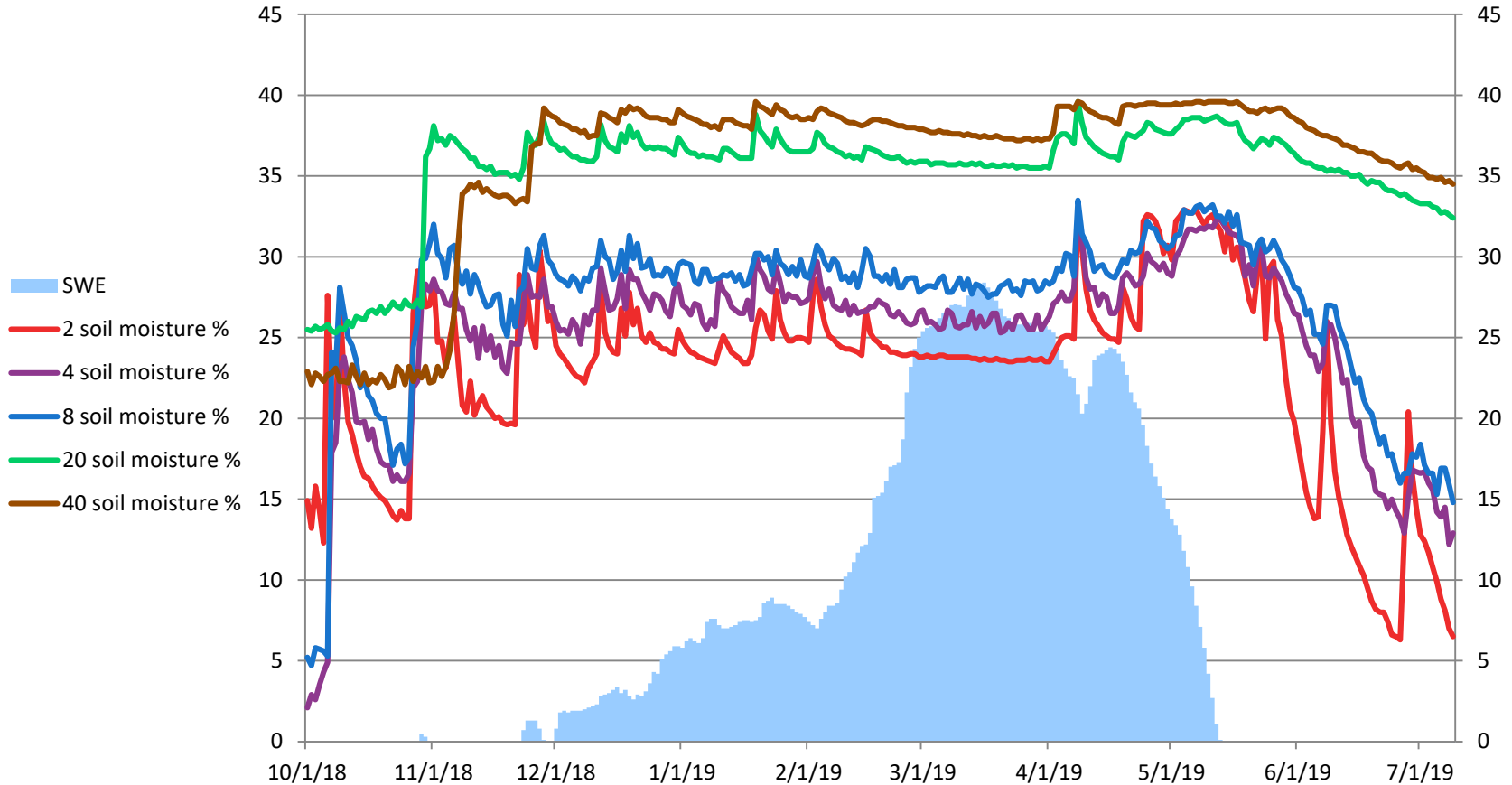
30 day Precipitation  
June 9, 2019 through July 8,  
2019

# Holland Meadows SNOTEL

## Soil Moisture WY2019

Elevation = 4930'

### Lane County

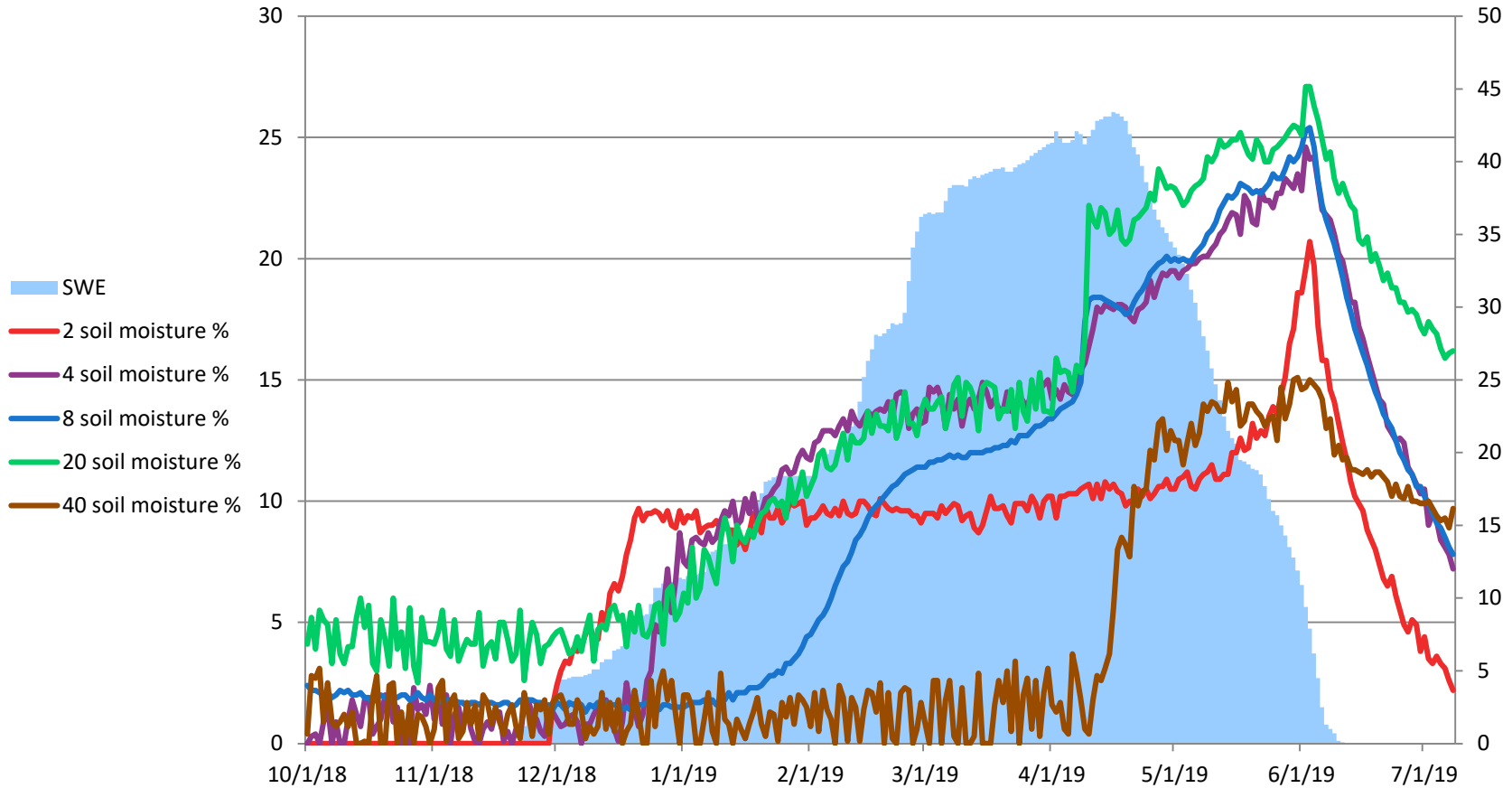


*Provisional data –Subject to future edits*

# Annie Springs SNOTEL

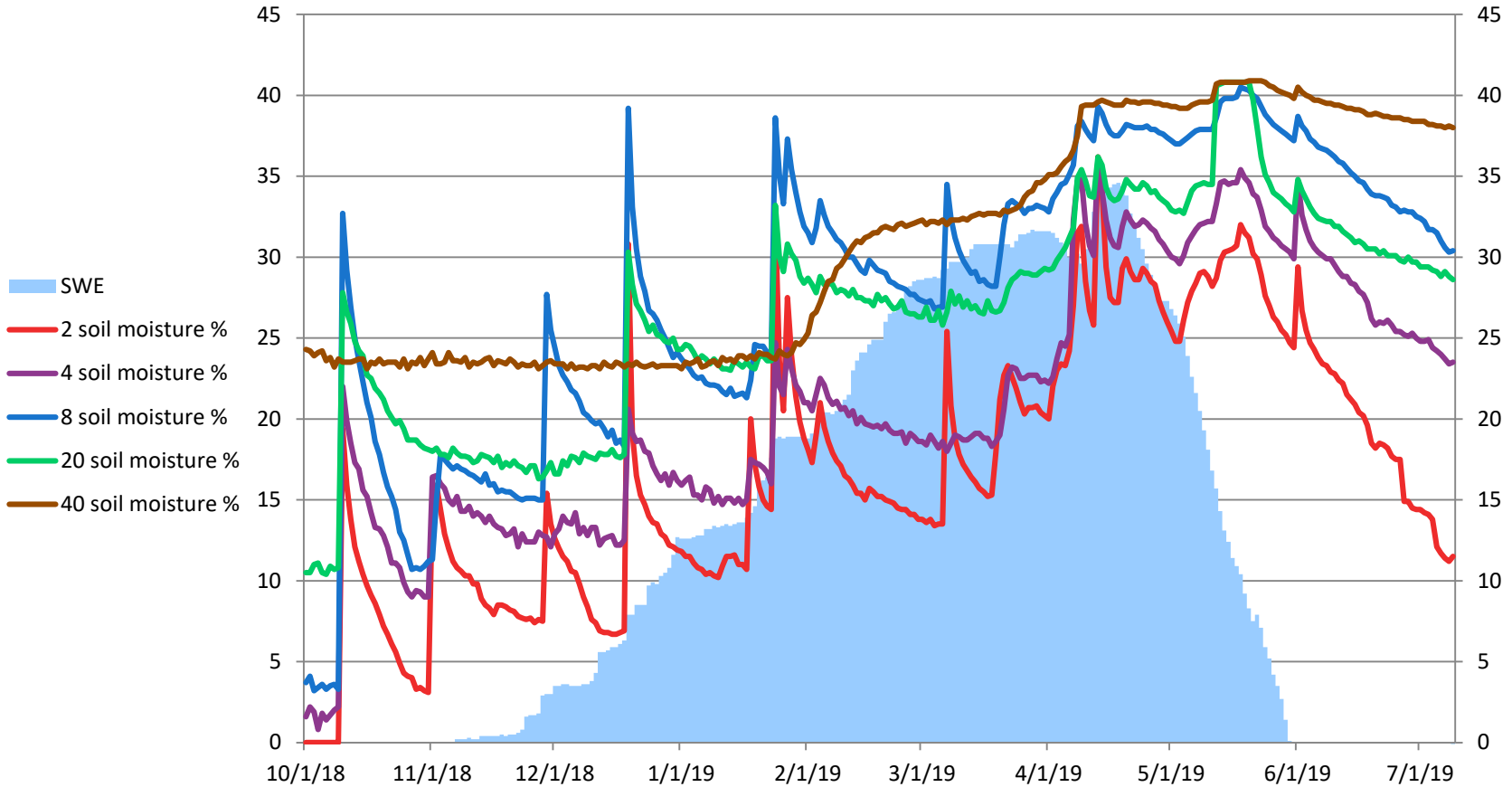
## Soil Moisture WY2019

Elevation = 6010'  
Klamath County



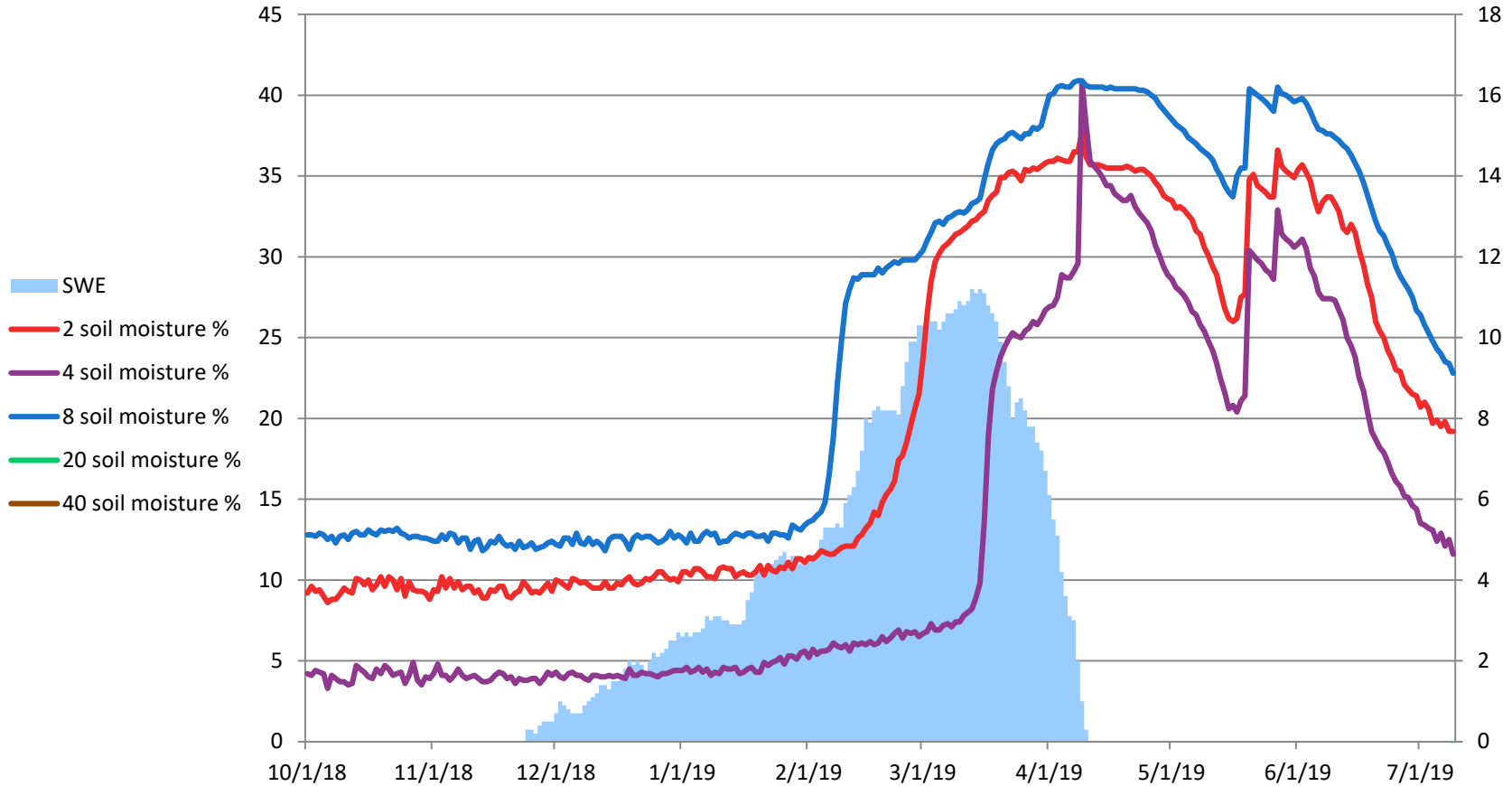
*Provisional data –Subject to future edits*

# High Ridge SNOTEL Soil Moisture WY2019 Elevation = 4920' Umatilla County



*Provisional data –Subject to future edits*

# Rock Springs SNOTEL Soil Moisture WY2019 Elevation = 5290' Grant County



*Provisional data –Subject to future edits*



# 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, audiotope, 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](mailto:program.intake@usda.gov).

**Oregon Water Supply Availability Committee**  
**July 9, 2019**



**H. Scott Oviatt**  
**USDA – Natural Resources Conservation Service**  
[scott.oviat@usda.gov](mailto:scott.oviat@usda.gov)  
503-414-3271



# Oregon Water Supply Availability

July 9, 2019

National Weather Service Update

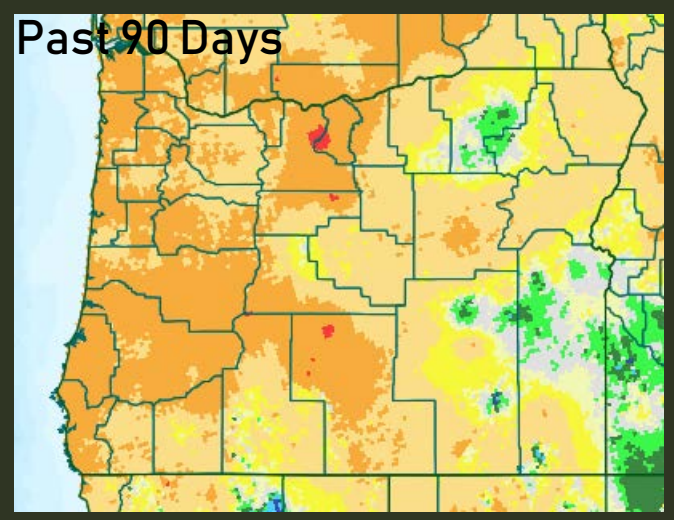
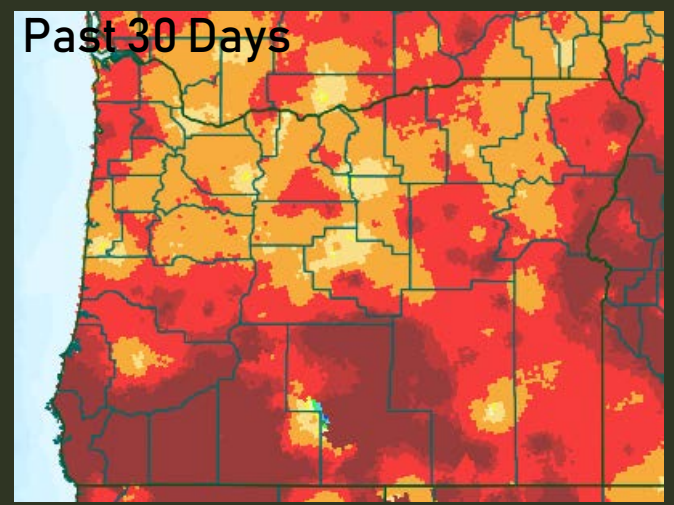
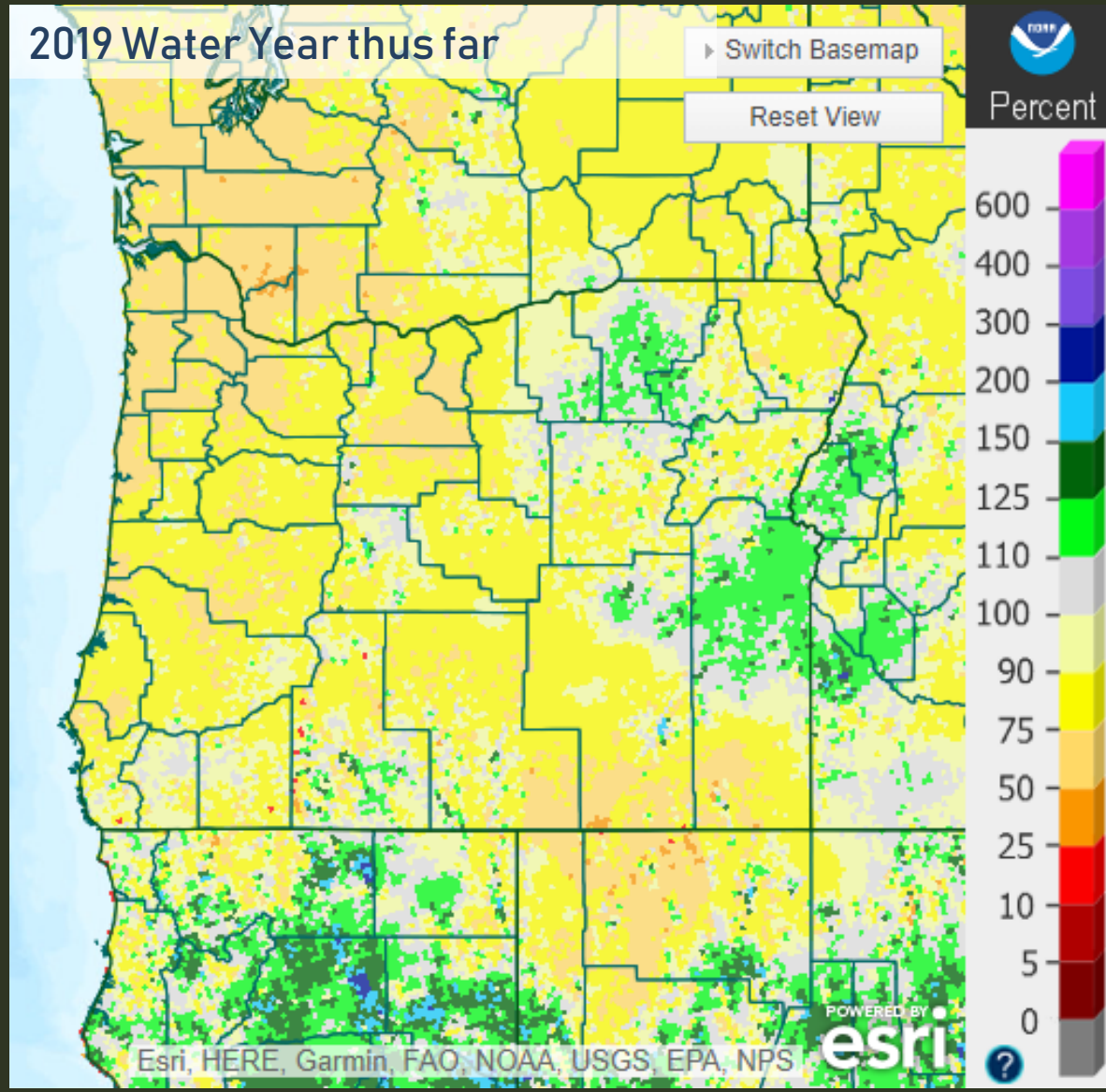


**Andy Bryant**  
NOAA/NWS Portland  
Weather Forecast Office

**Amy Burke**  
NOAA/NWS/Northwest River Forecast Center



# Precipitation % of Average



Precipitation Data as of July 8, 2019

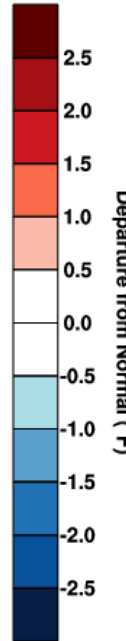
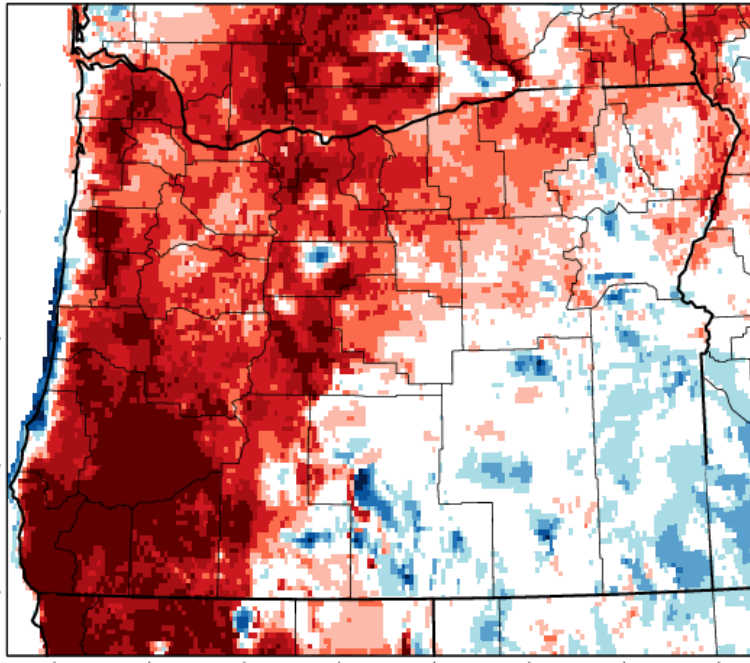
Source: [water.weather.gov/precip/index.php?location\\_type=wfo&location\\_name=pqr](http://water.weather.gov/precip/index.php?location_type=wfo&location_name=pqr)



# Recent Temperatures

## June 2019

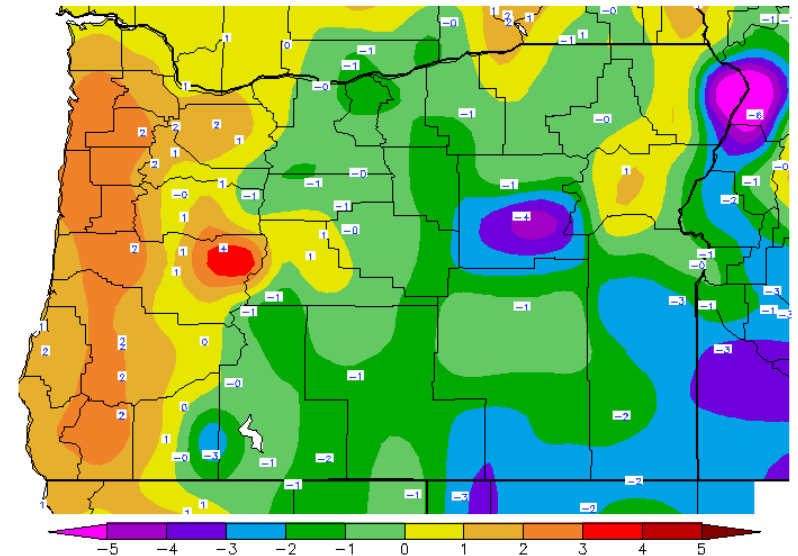
Oregon - Mean Temperature  
June 2019 Departure from 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 7 JUL 2019

## Past 30 Days

Ave. Temperature dep from Ave (deg F)  
6/8/2019 - 7/7/2019



Generated 7/ 8/2019 at WRCC using provisional data.  
NOAA Regional Climate Centers



# Drought Monitor

U.S. Drought Monitor

June 4, 2019

West

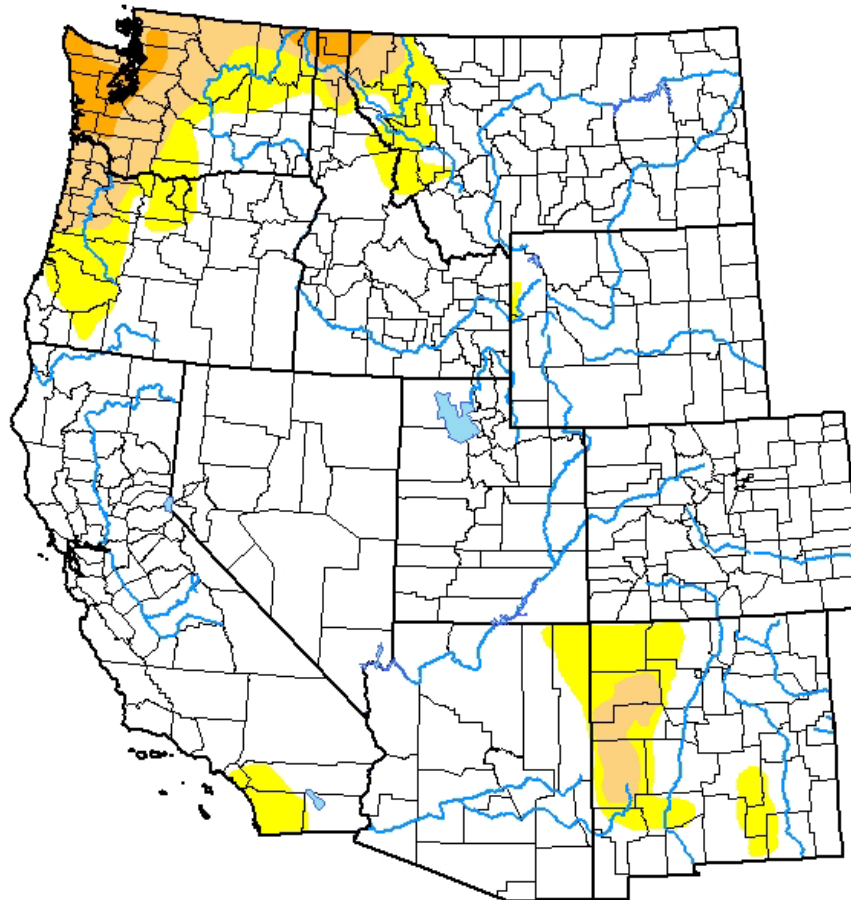
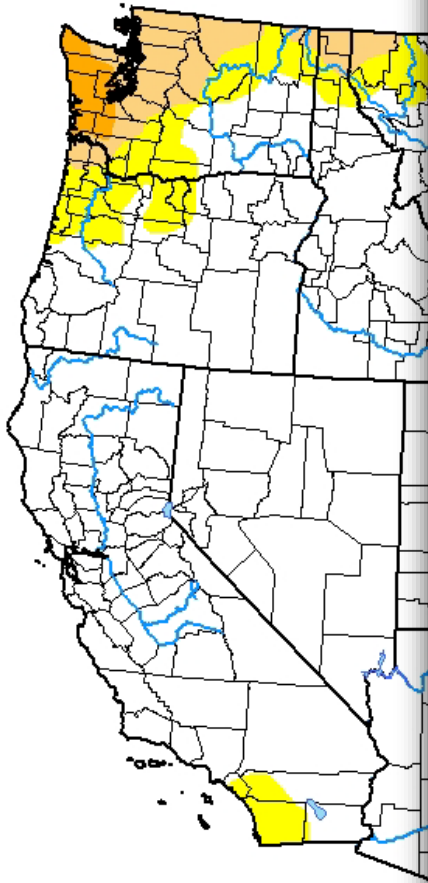
U.S. Drought Monitor

July 2, 2019







(Released Wednesday, Jul. 3, 2019)

Valid 8 a.m. EDT

West



**Intensity:**

-  None
-  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:**

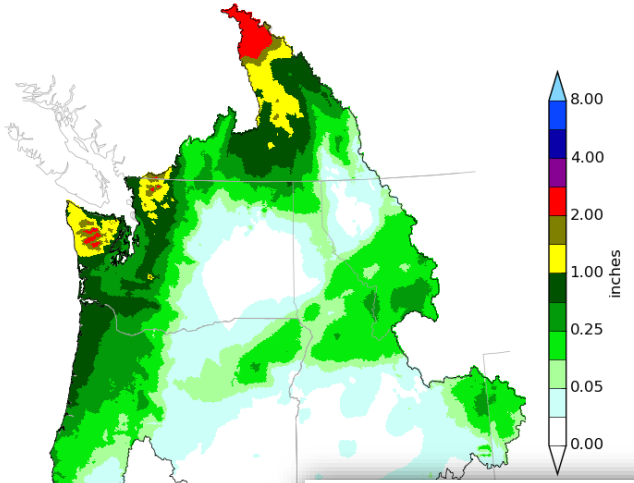
Richard Tinker  
CPC/NOAA/NWS/NCEP





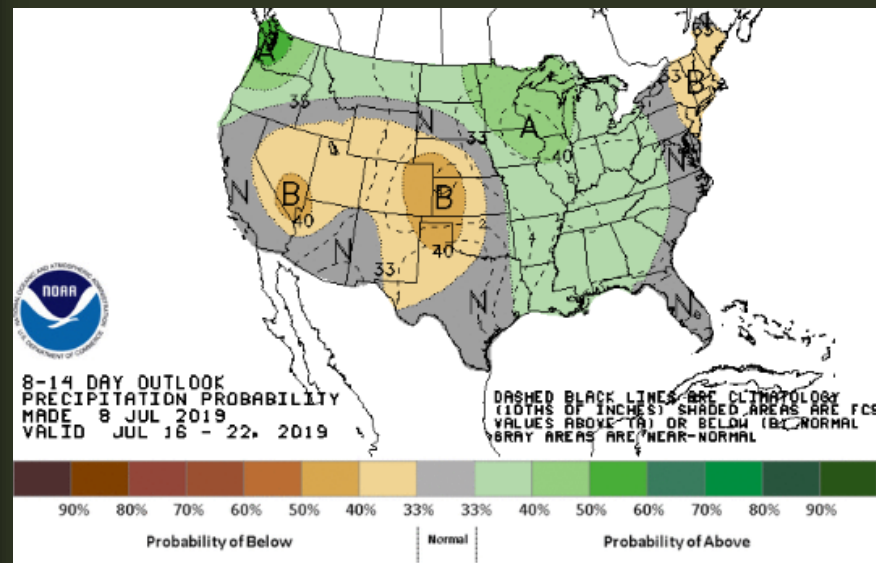
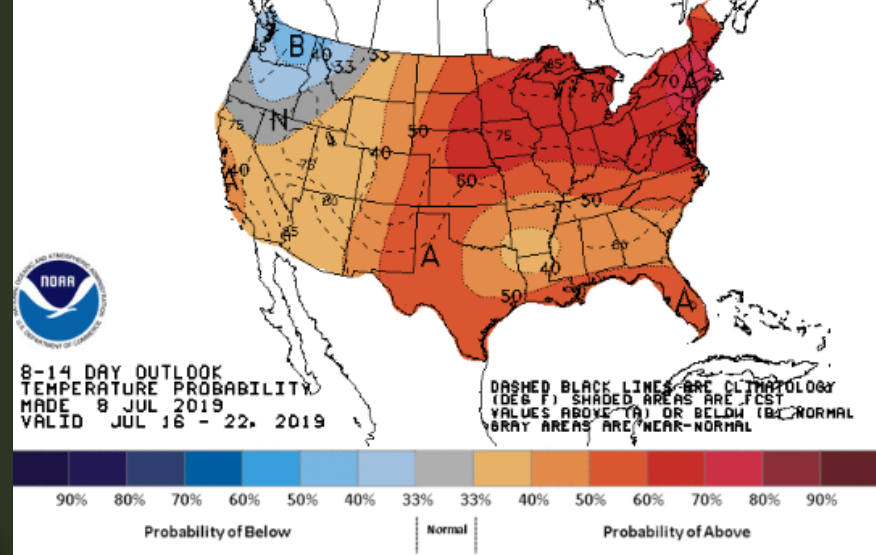
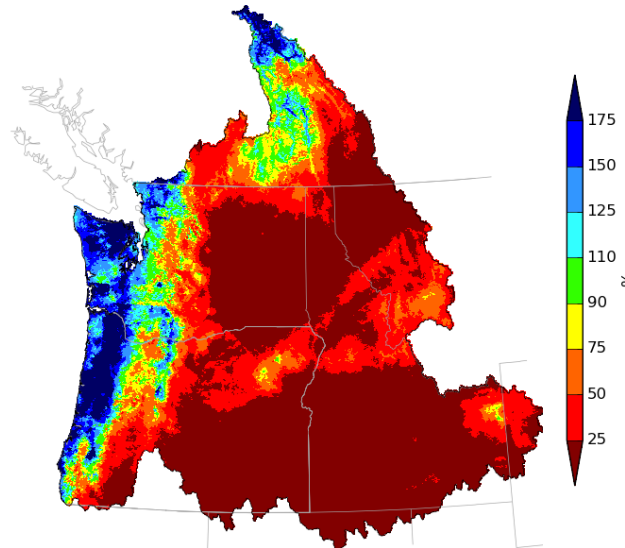
# Mid/Late July Outlook

Northwest River Forecast Center  
10 Day QPF, Ending 12Z, 07/19/19



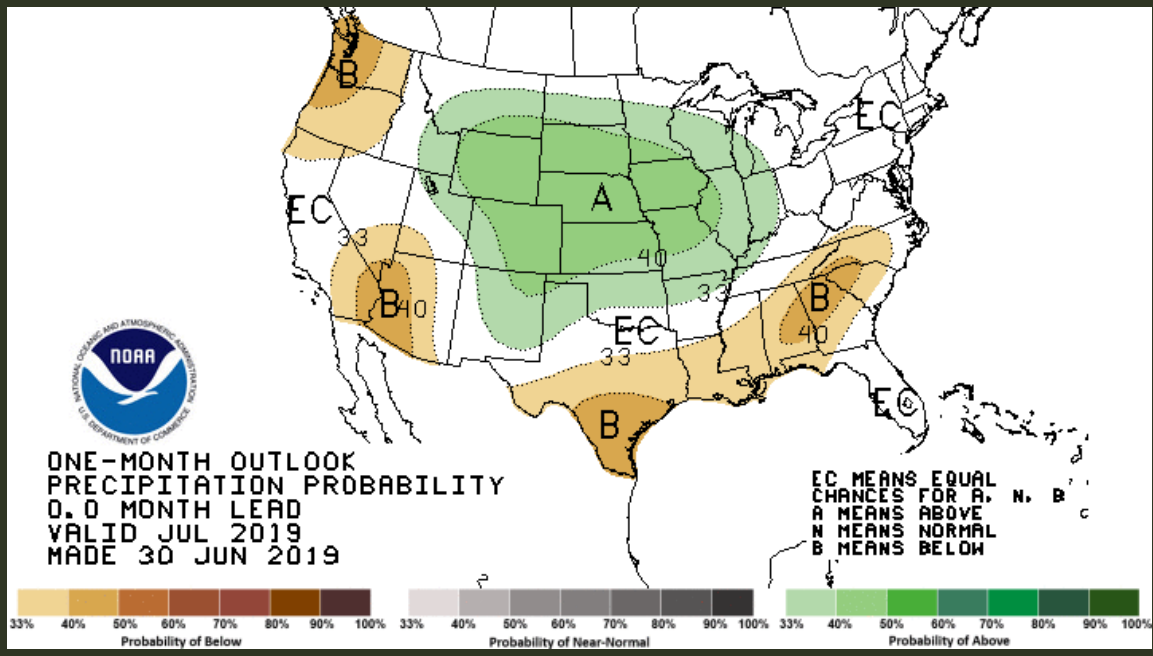
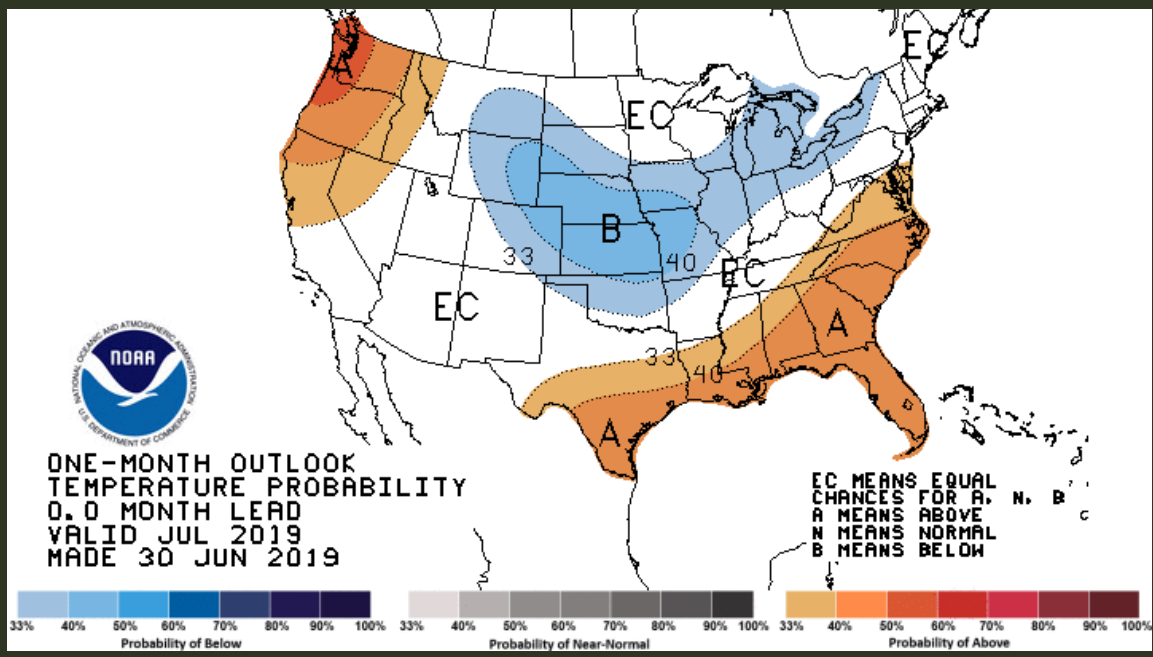
Creation Time: Tue Jul 9 14:43:27 UTC 2019

Northwest River Forecast Center  
10 Day QPF (Percent of Climatology), Ending 12Z, 07/19/19

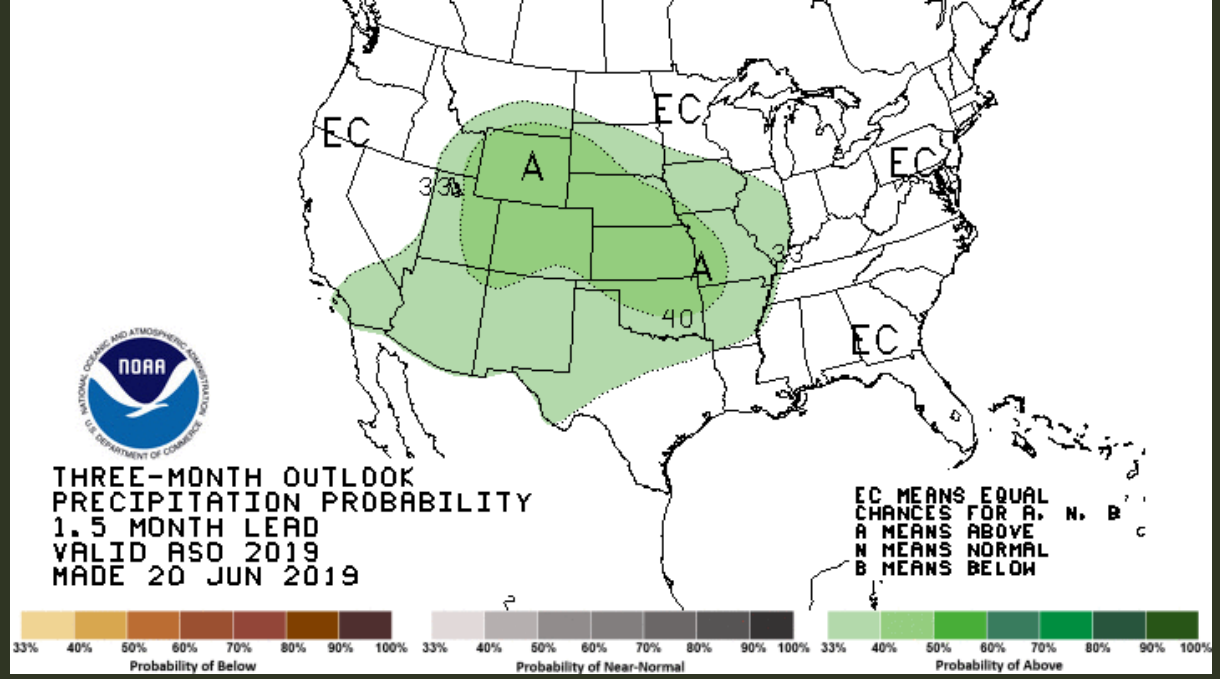
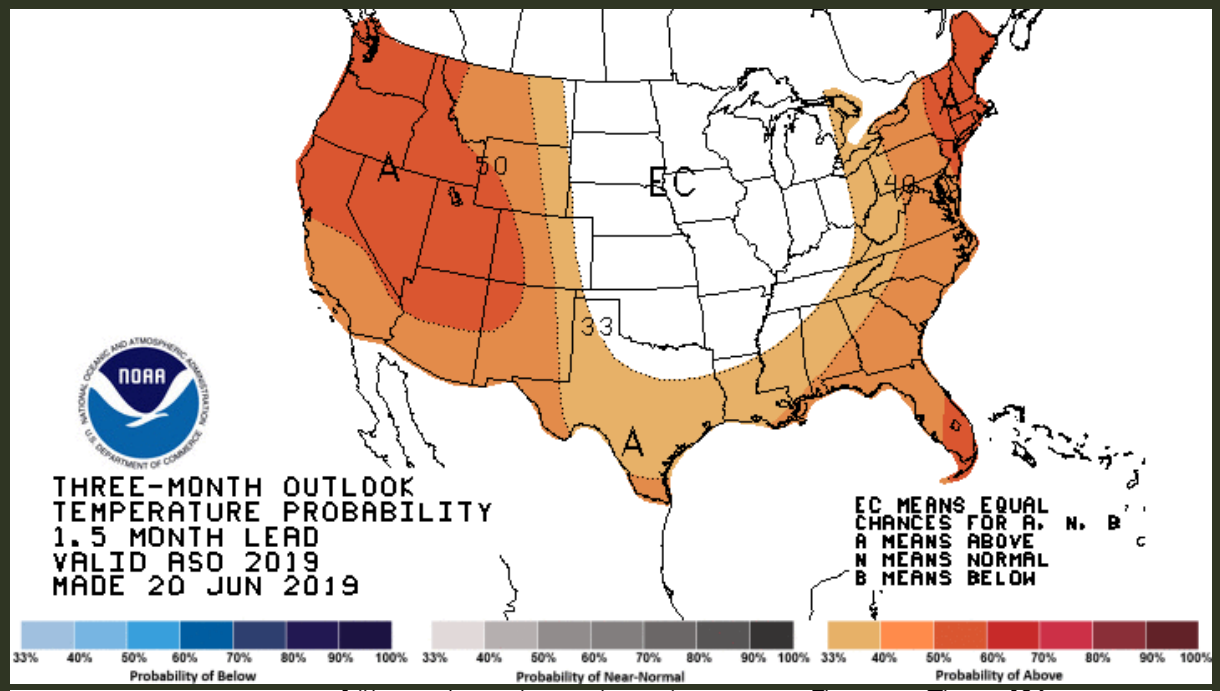




# July Outlook







# Aug-Sep-Oct Outlook



# Observed WY19 Runoff thus far



## Northwest River Forecast Center Observed Water Year Natural Runoff



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

Search  
Enter NWS ID:  
  
GO

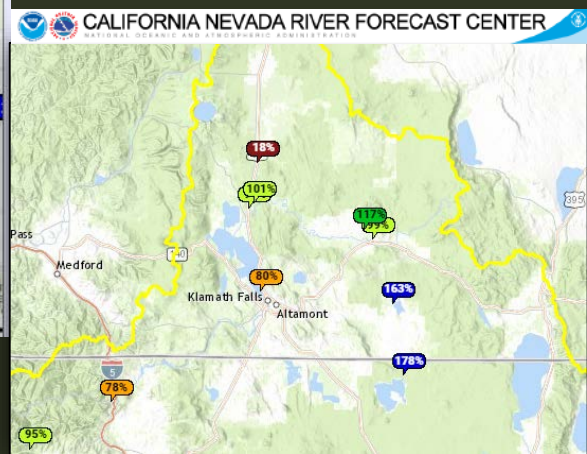
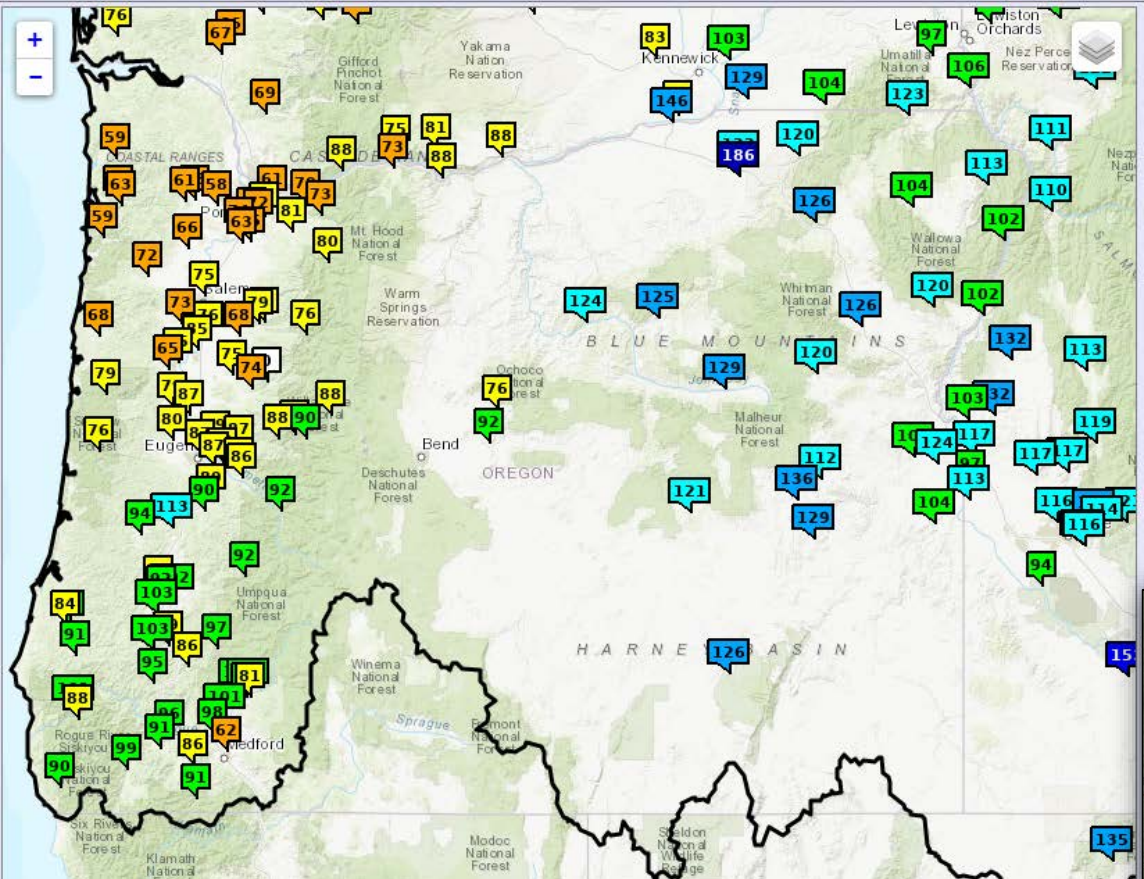
Map Overlays  
 NWRFC Boundary  
 NWRFC Basins  
 NWS HSAs  
 Counties

ESP Natural Forecast  
 Natural Status  
 Natural % of Normal  
 Rank (ASC)  
 Rank (DESC)  
 Exceedance (%)  
 Percentile (%)

Natural Runoff  
 Runoff Status  
 Runoff % of Normal

Natural Runoff  
 Period: Oct thru Curr  
 (% Normal)

- No Normal, No data
- < 25
- 25-50
- 50-75
- 75-90
- 90-110
- 110-125
- 125-150
- 150-175
- > 175





# Seasonal Water Supply Forecasts



## Northwest River Forecast Center ESP Natural Forecast



River and Hydrology

Water Supply

Observations

Weather Forecasts

Climate

NWRFC

Search

Enter NWS ID:

GO

Map Overlays

- NWRFC Boundary
- NWRFC Basins
- NWS HSAs
- Counties

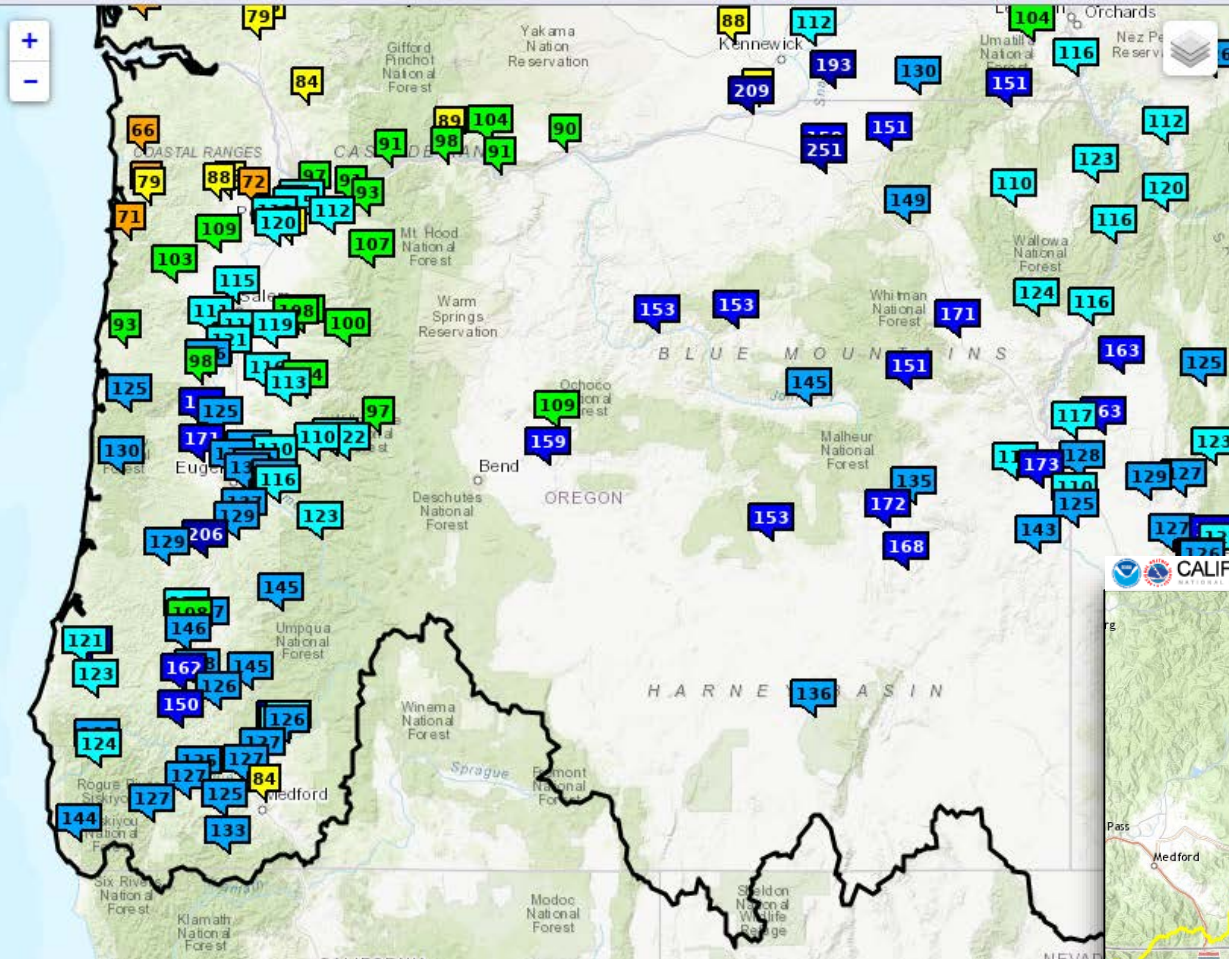
ESP Natural Forecast

- Natural Status
- Natural % of Normal
- Rank (ASC)
- Rank (DESC)
- Exceedance (%)
- Percentile (%)
- Natural Runoff
  - Runoff Status
  - Runoff % of Normal

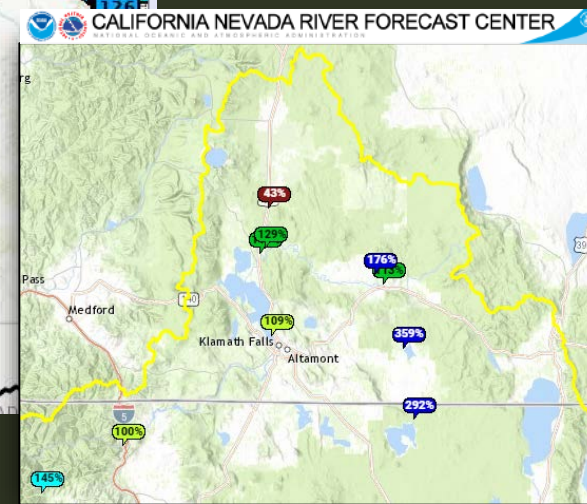
ESP Natural Forecast

Period: APR-SEP  
Forecast (% Normal)

- No Normal, No Data
- < 25
- 25-50
- 50-75
- 75-90
- 90-110
- 110-125
- 125-150
- 150-175
- > 175



*Forecast runoff volume for April - September 2019*

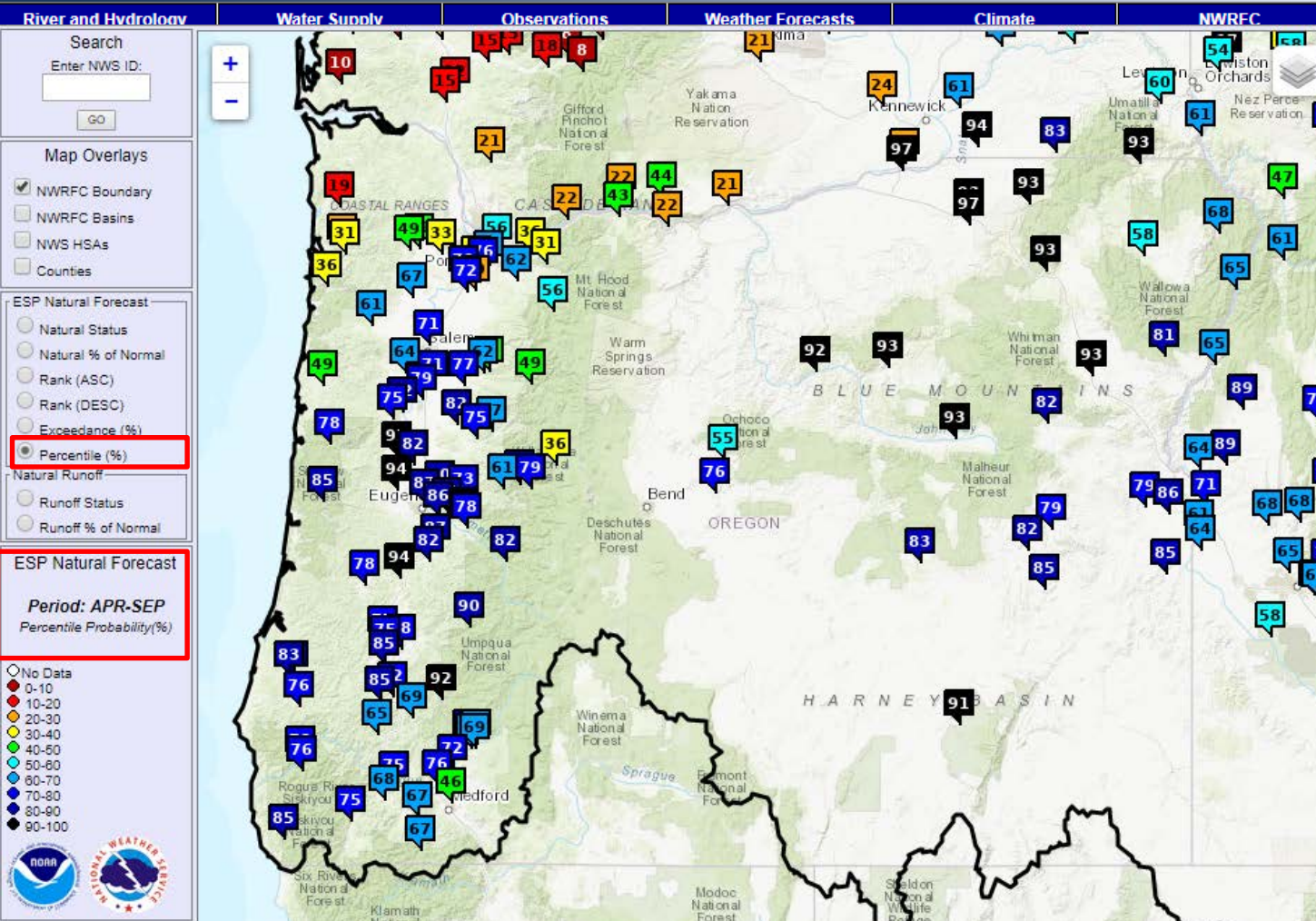




# Ranked Seasonal Water Supply Forecasts



## Northwest River Forecast Center ESP Natural Forecast



*Forecast runoff volume for April - September 2019*



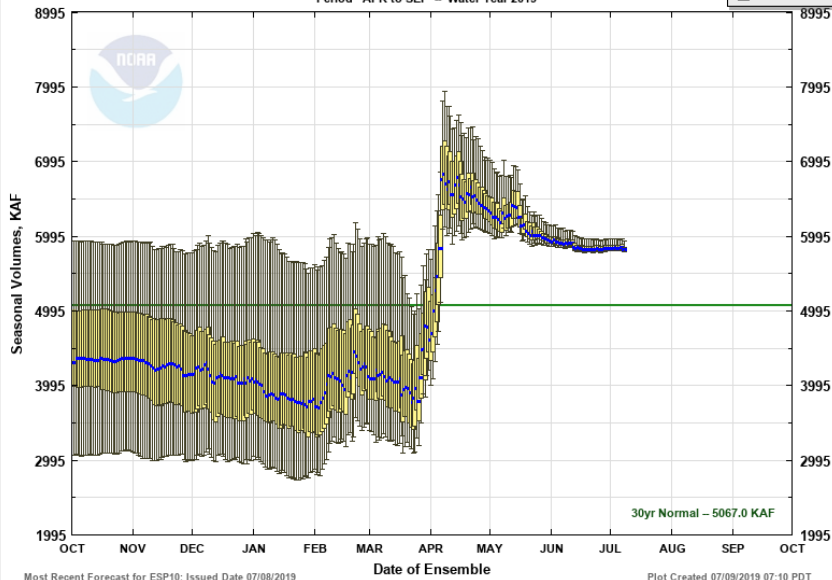
# Natural Water Supply Forecasts

## (West)

### Natural Volume Forecasts

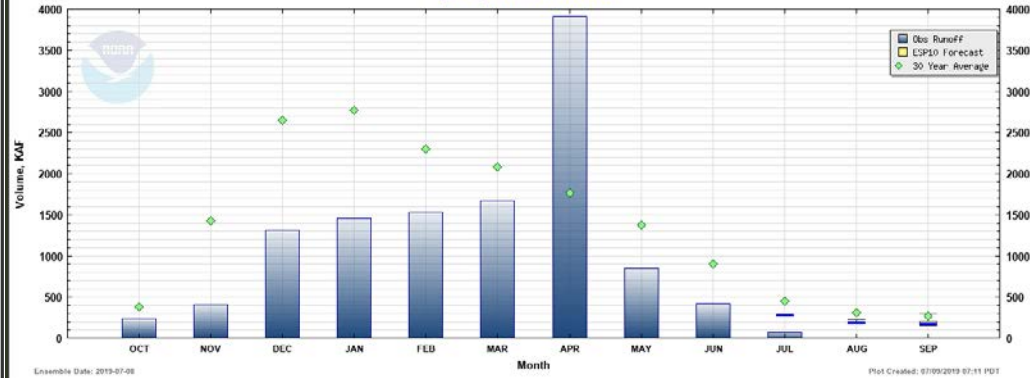
WILLAMETTE - AT SALEM

Period APR to SEP - Water Year 2019



### Natural Volume Monthly Forecasts (ESP10) for Water Year 2019

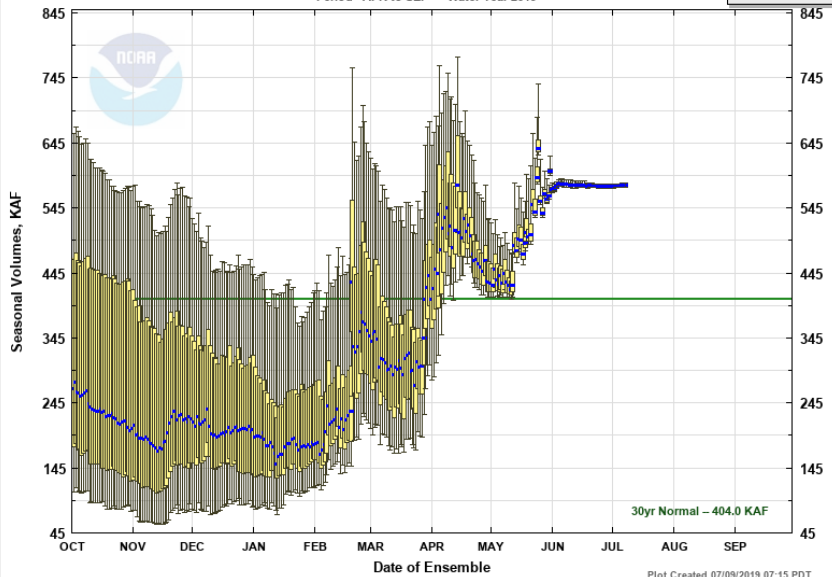
(SLMO3) WILLAMETTE - AT SALEM



### Natural Volume Forecasts

OWYHEE - OWYHEE DAM

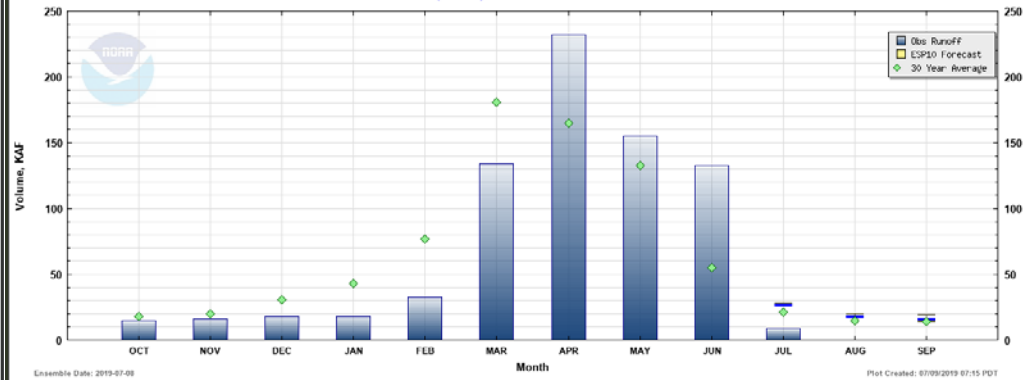
Period APR to SEP - Water Year 2019



## (East)

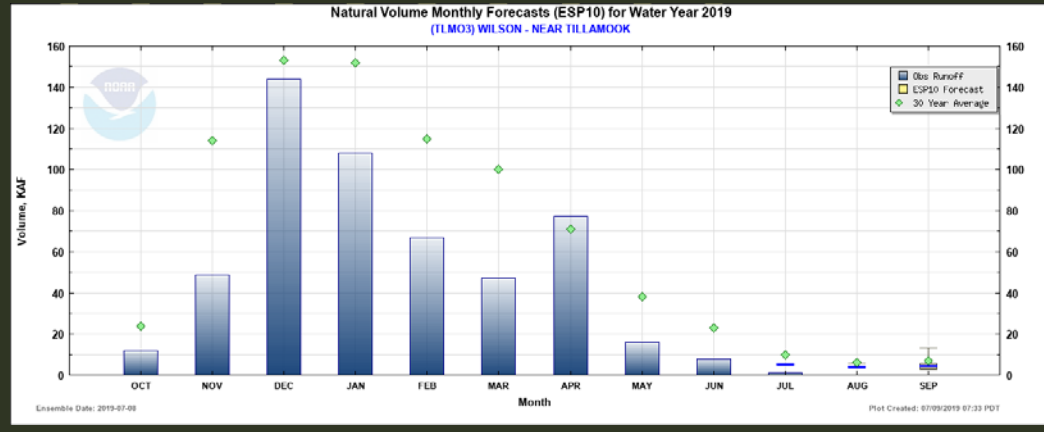
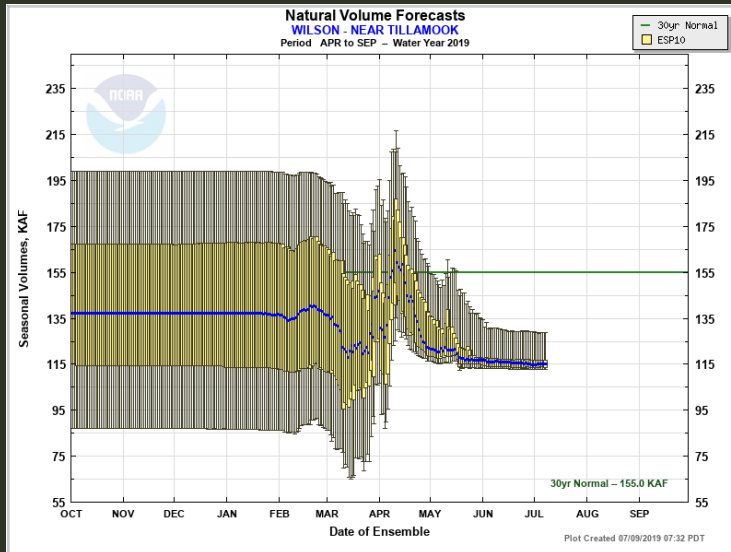
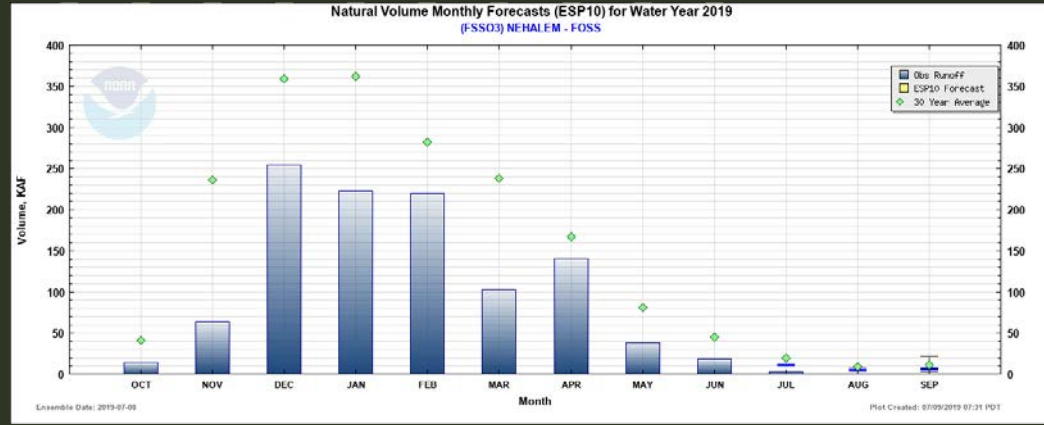
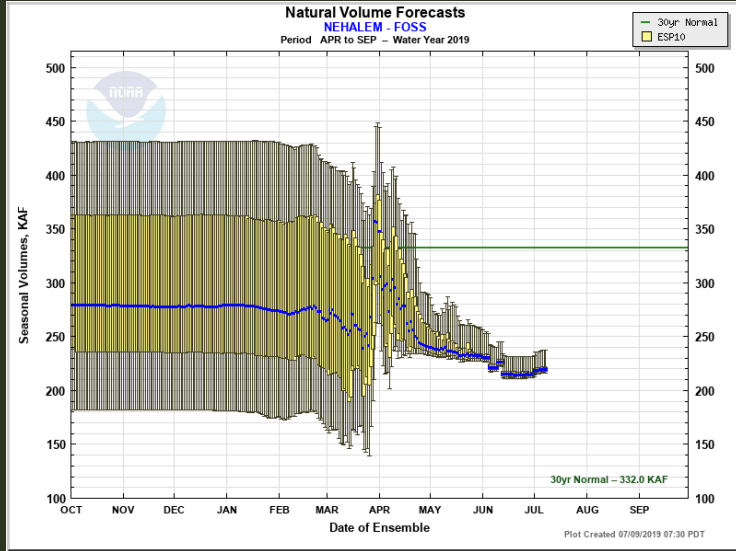
### Natural Volume Monthly Forecasts (ESP10) for Water Year 2019

(OWYO3) OWYHEE - OWYHEE DAM





# Natural Water Supply Forecasts (North Coast)





# Link to Northwest River Forecast Center ESP Natural Forecasts

<https://www.nwrfc.noaa.gov/natural>

## Live Water Supply Briefings

Tentatively scheduled for the first Thursday of each month  
January through late spring.

Please refer to online schedule which will be updated in the fall.

[https://www.nwrfc.noaa.gov/water\\_supply/ws\\_schd.cgi](https://www.nwrfc.noaa.gov/water_supply/ws_schd.cgi)

# Water Supply Conditions Report

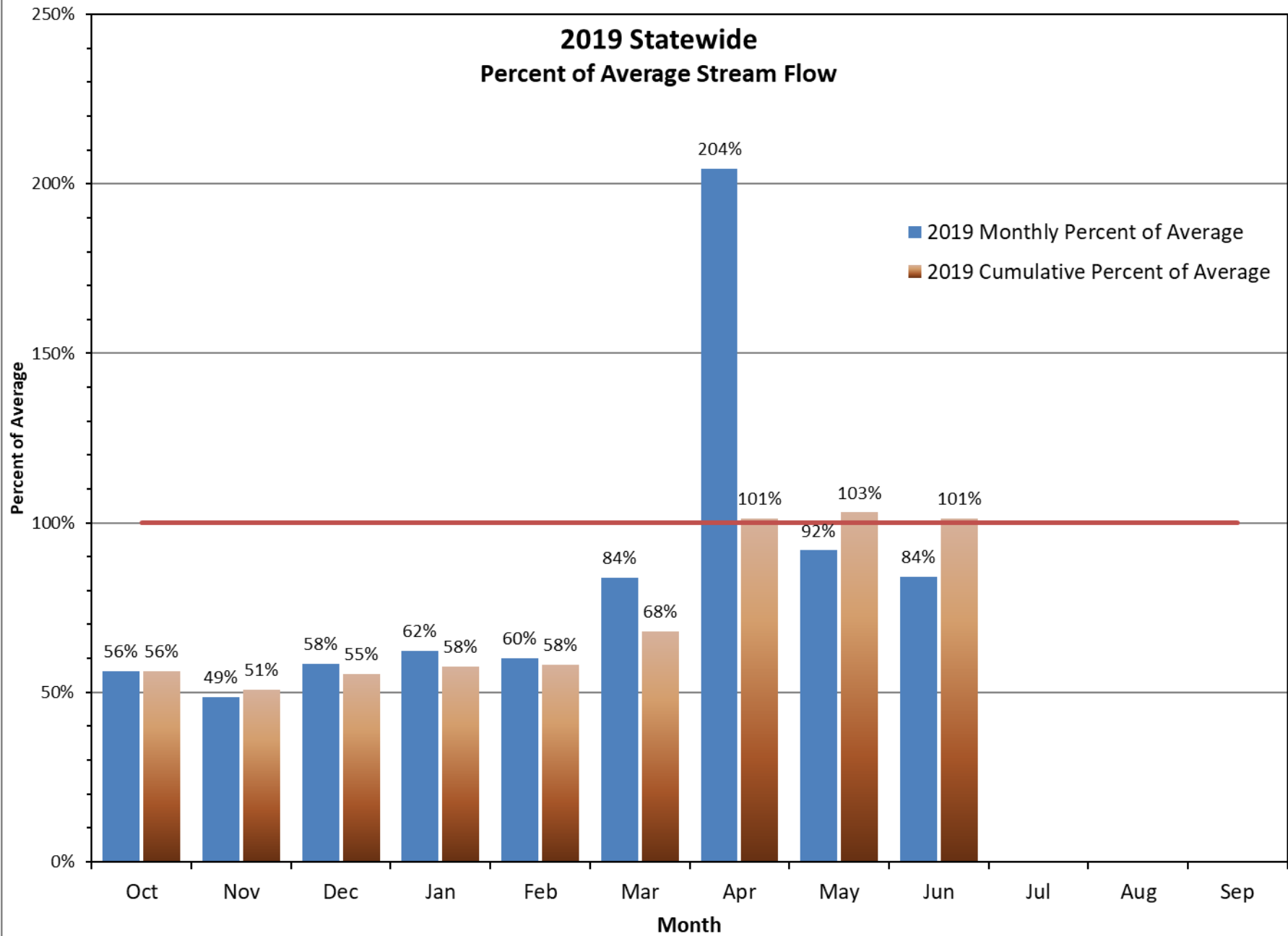
## Water Supply Availability Committee



Ken Stahr  
Oregon Water Resources  
Department  
July 9, 2019



## 2019 Statewide Percent of Average Stream Flow

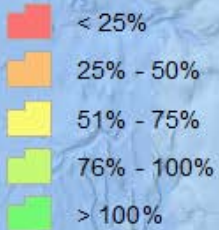




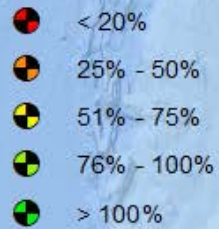
<b>Basin</b>	<b>Water Year % of average thru June</b>	<b>% of average for June</b>	<b>% of average for 07/07/2019</b>	<b># of data points</b>
<b>West Side</b>	<b>78%</b>	<b>42%</b>	<b>58%</b>	<b>44</b>
<b>East Side</b>	<b>116%</b>	<b>111%</b>	<b>91%</b>	<b>50</b>
<b>State</b>	<b>101%</b>	<b>84%</b>	<b>78%</b>	<b>94</b>

# Percent of Average Streamflow May, 2019

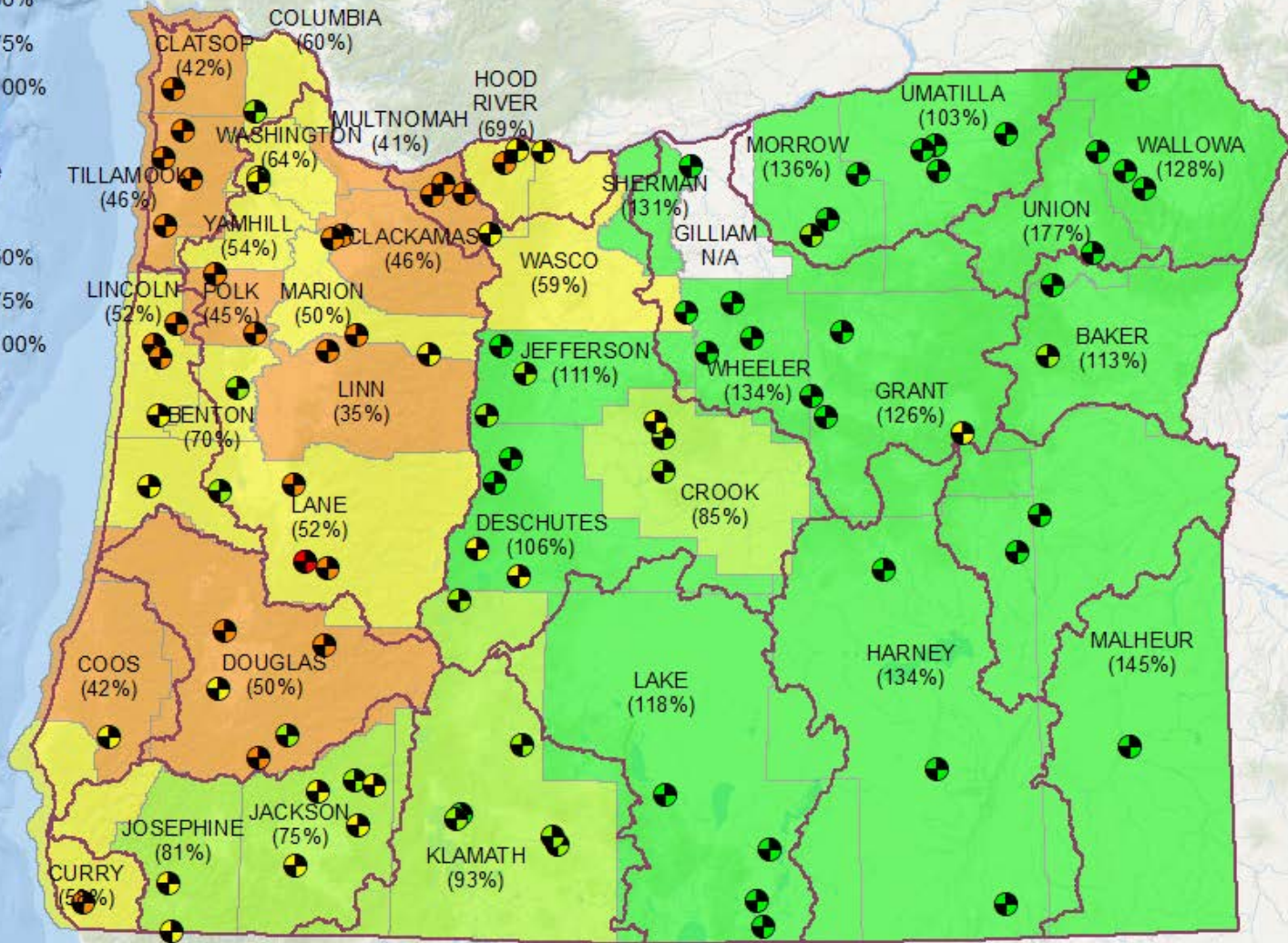
## County



## Stream Gage



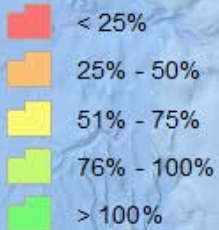
## WRD Basin



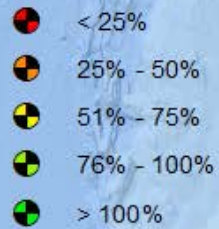
Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

# Percent of Average Streamflow June, 2019

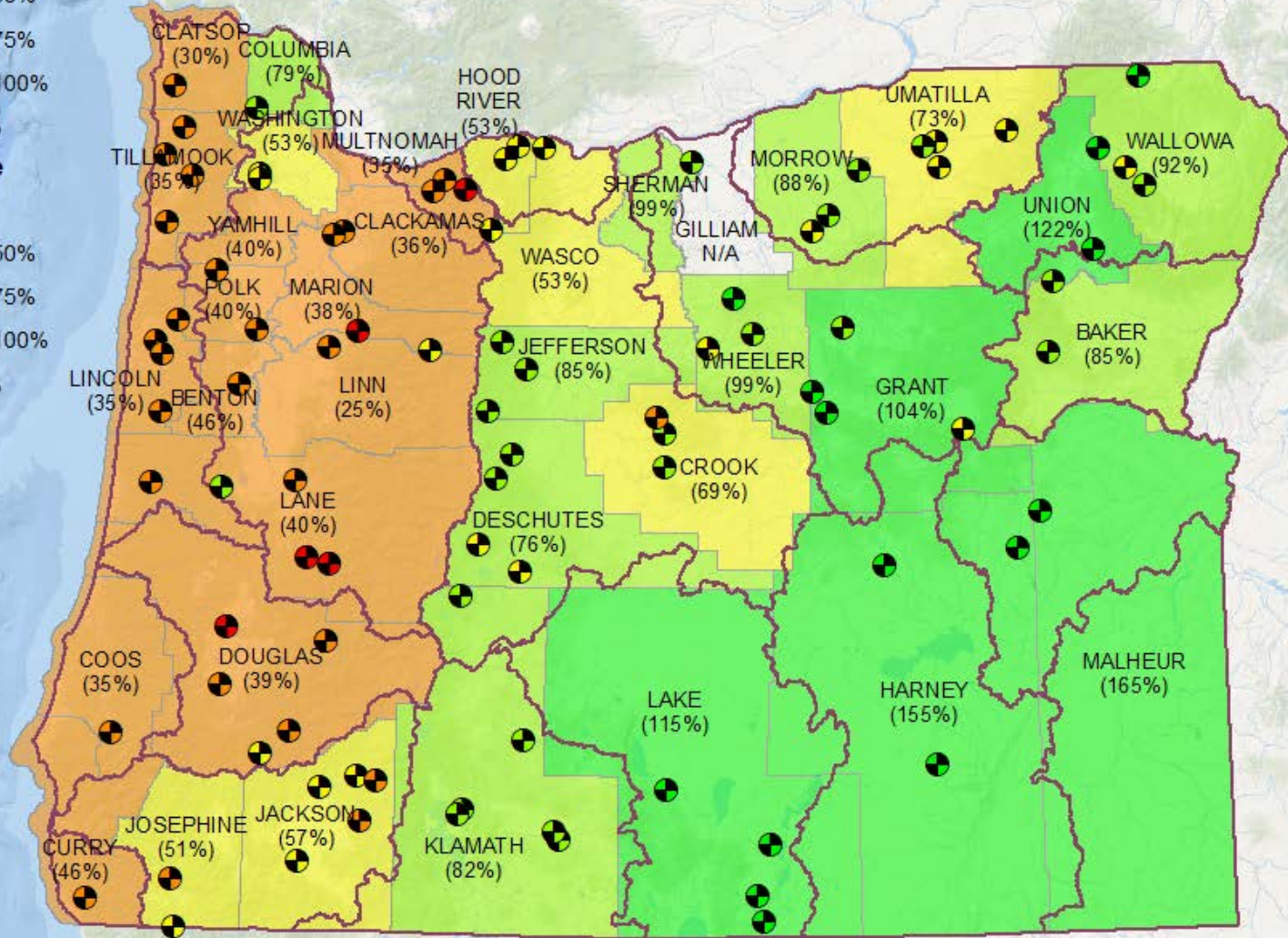
## County



## Stream Gage



## WRD Basin



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.

OREGON



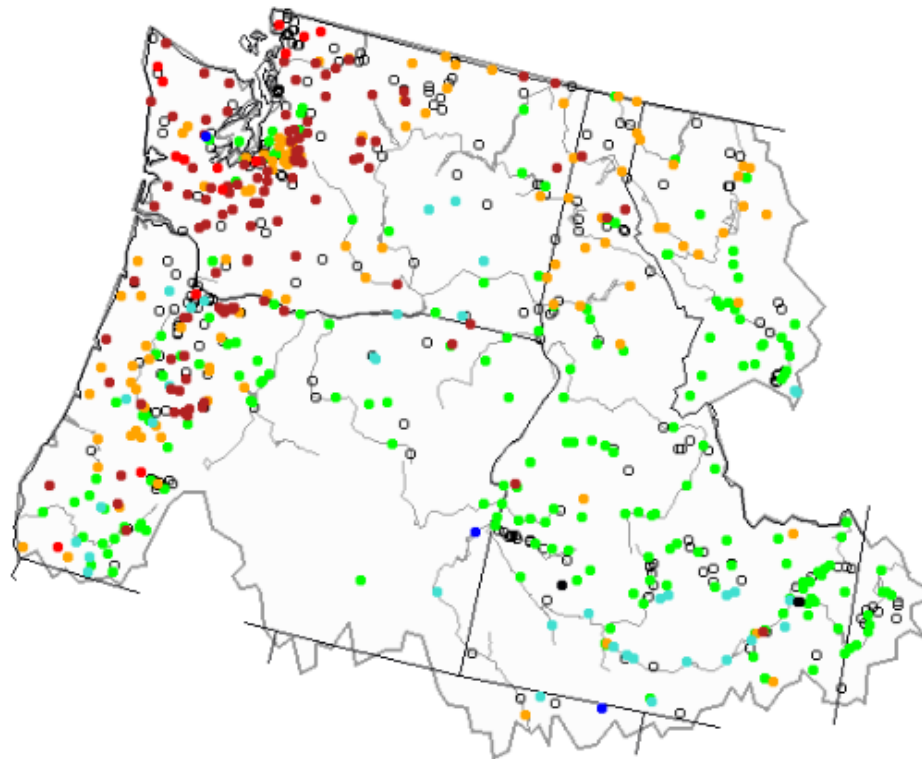
WATER RESOURCES  
DEPARTMENT

**Thank you.**

# Oregon Water Supply Availability Meeting

July 2019

Sunday, July 07, 2019



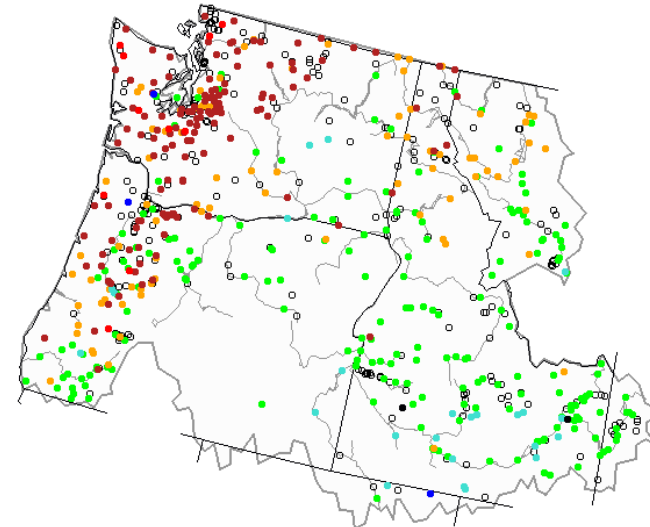
Search USGS streamgage

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

(Left) Map Current 7-day average streamflow compared to historical streamflow for the day of the year (Pacific Northwest)

(Below) Map of 28-day average streamflow compared to historical streamflow for the day of the year (Pacific Northwest)

Sunday, July 07, 2019

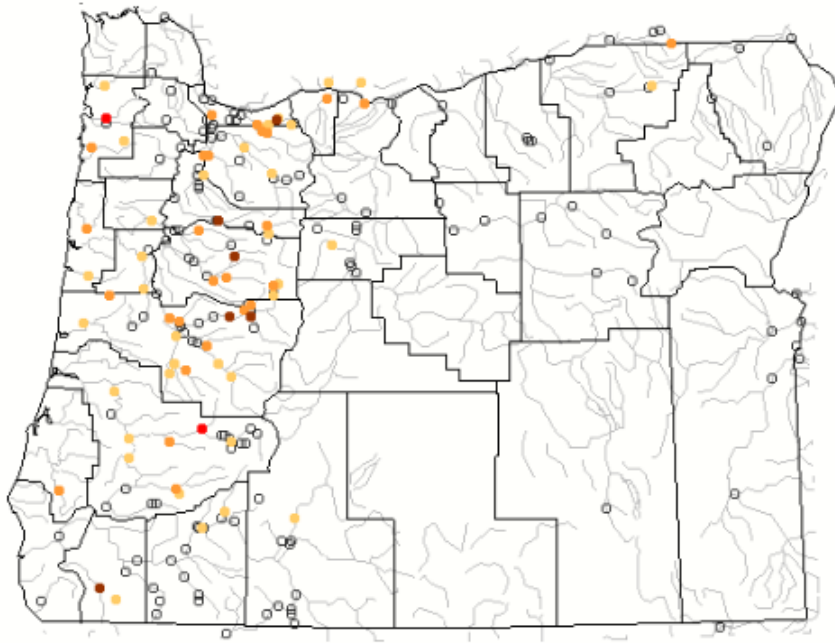


Search USGS streamgage

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



Sunday, July 07, 2019



Search USGS streamgage

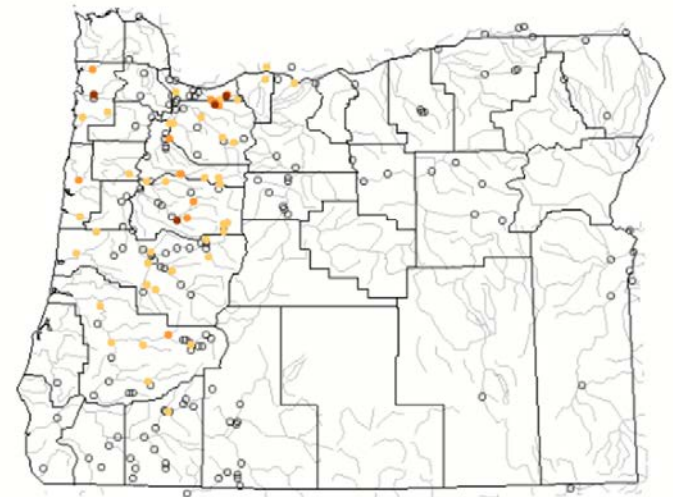
Choose a data retrieval option and select a location on the map

- List of all stations  Single station  Nearest stations

Explanation - Percentile classes				
New low	<=5	6-9	10-24	Not ranked
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

# Map of below normal 14-day average streamflow compared to historical streamflow for the day of year (Oregon)

Monday, June 10, 2019



Search USGS streamgage

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

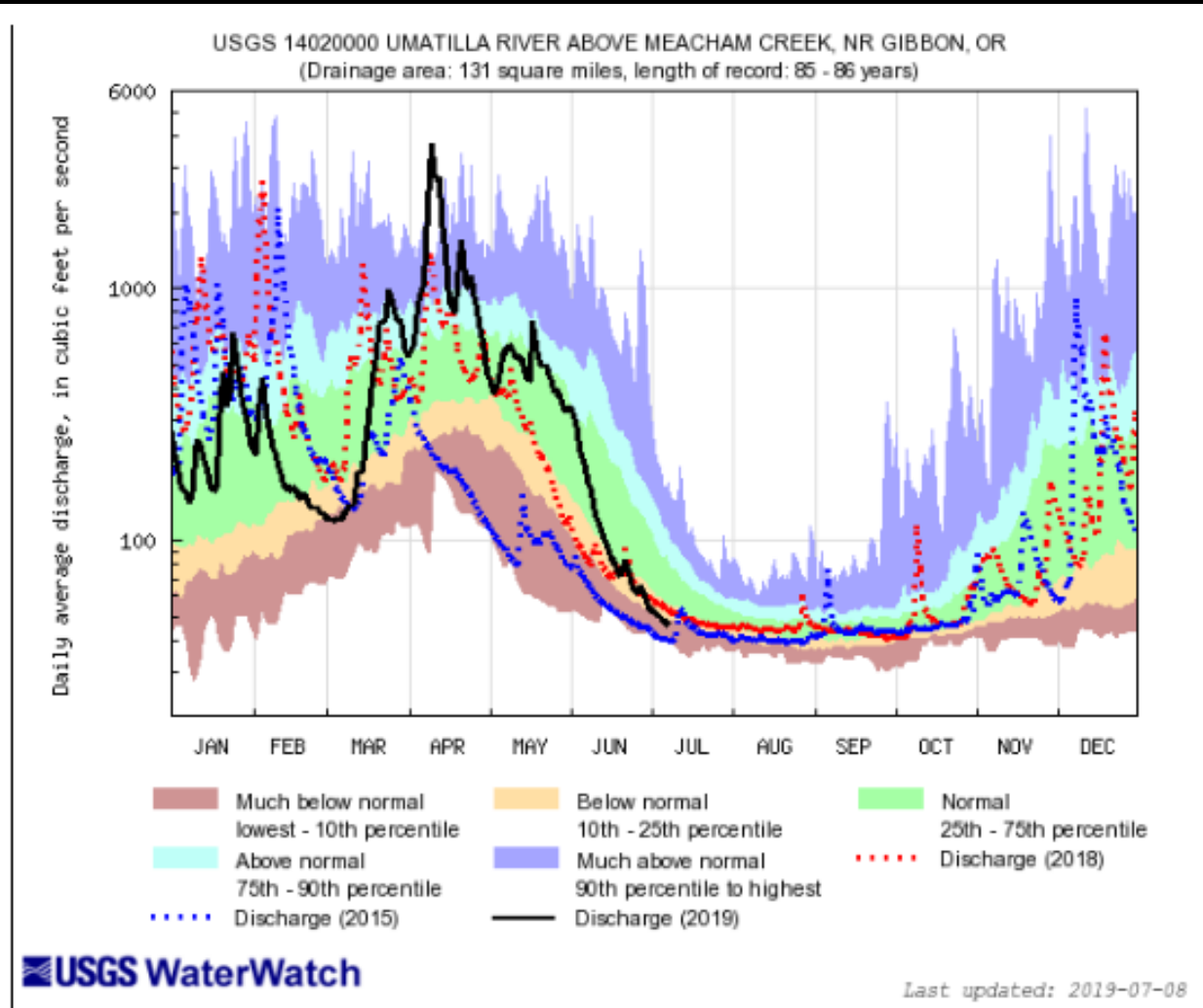
- List of all stations  Single station  Nearest stations

Explanation - Percentile classes				
New low	<=5	6-9	10-24	Not ranked
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	



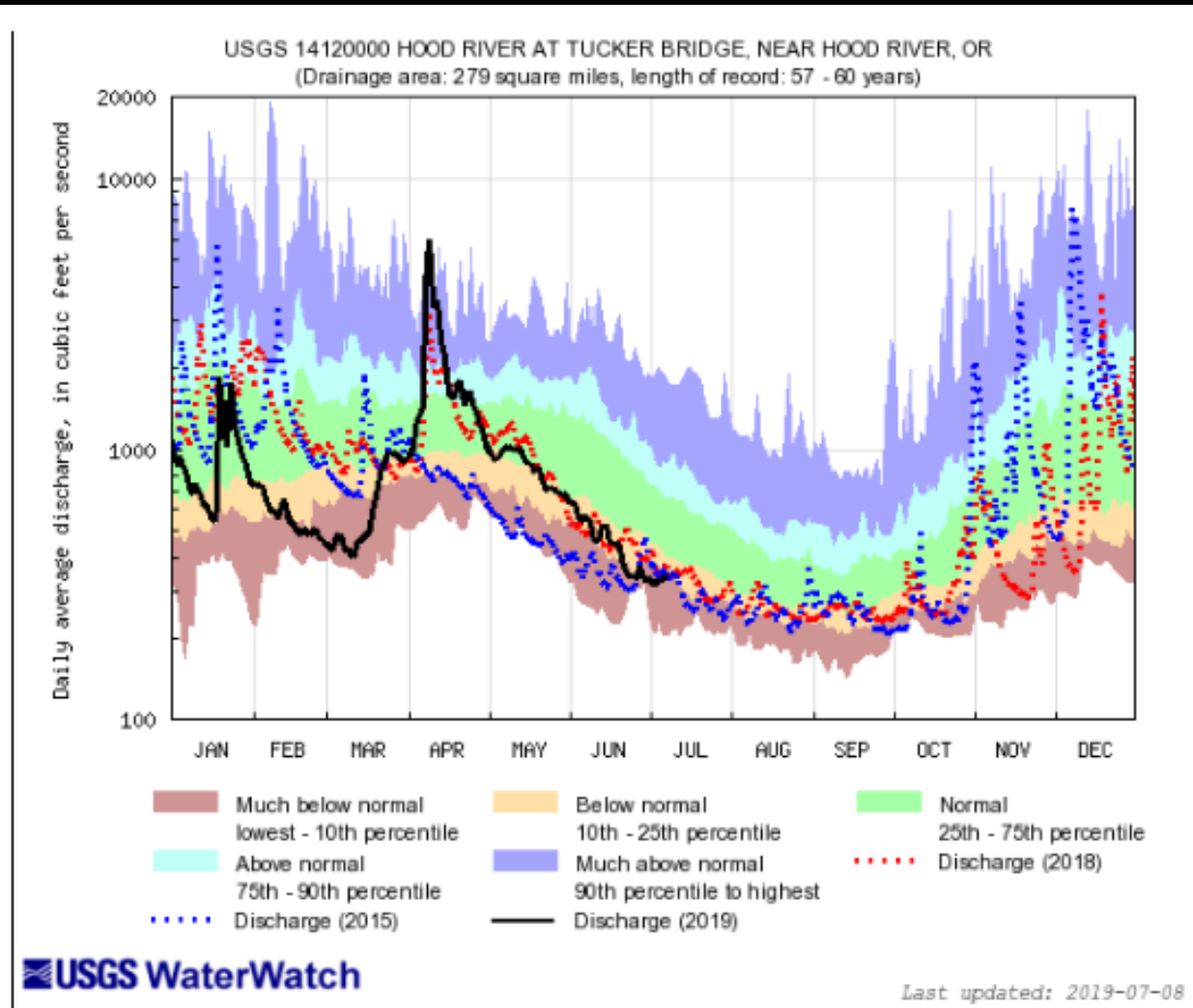


# 14020000 Umatilla R abv Meacham Ck



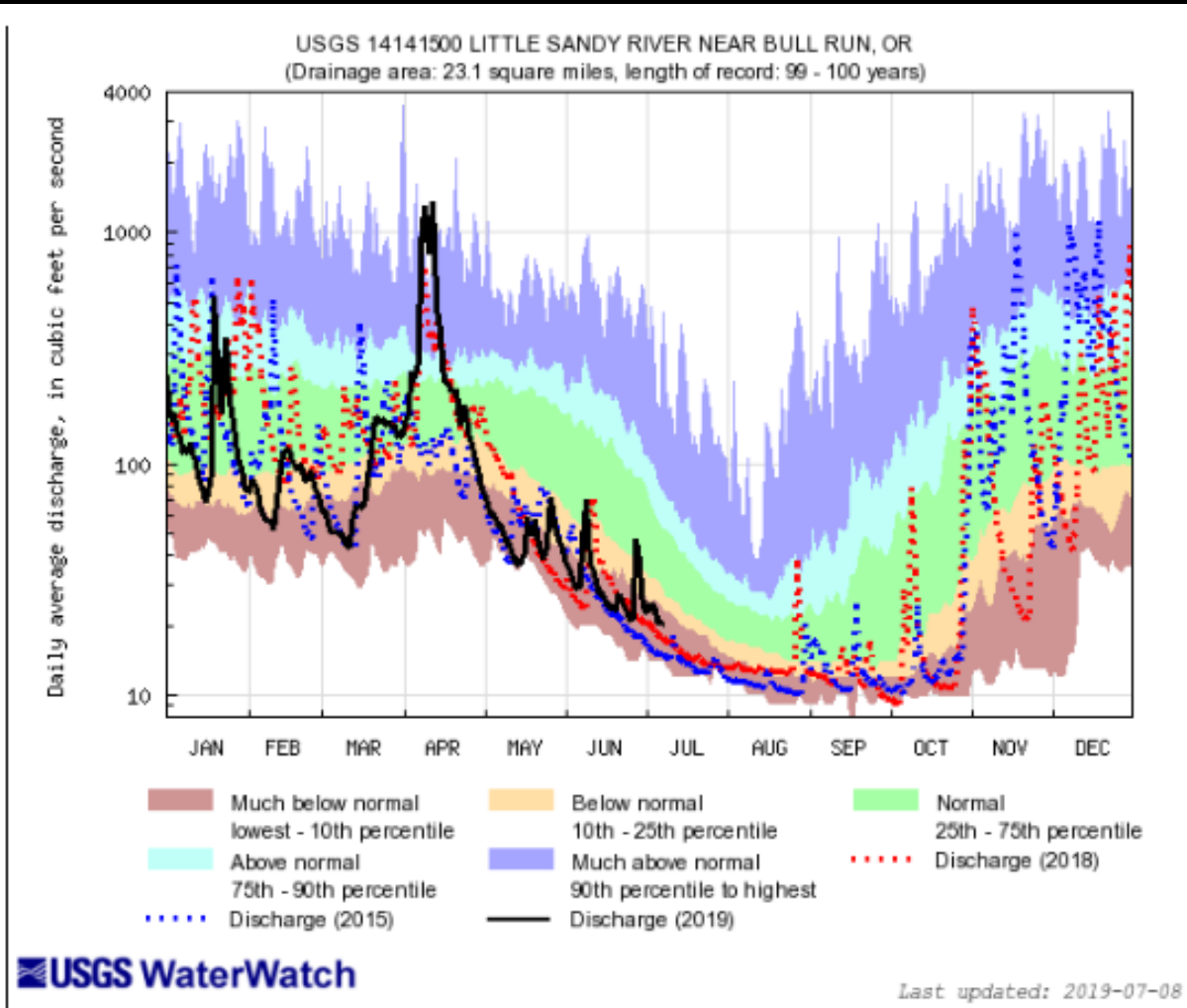
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile - highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14120000 Hood R at Tucker Bridge



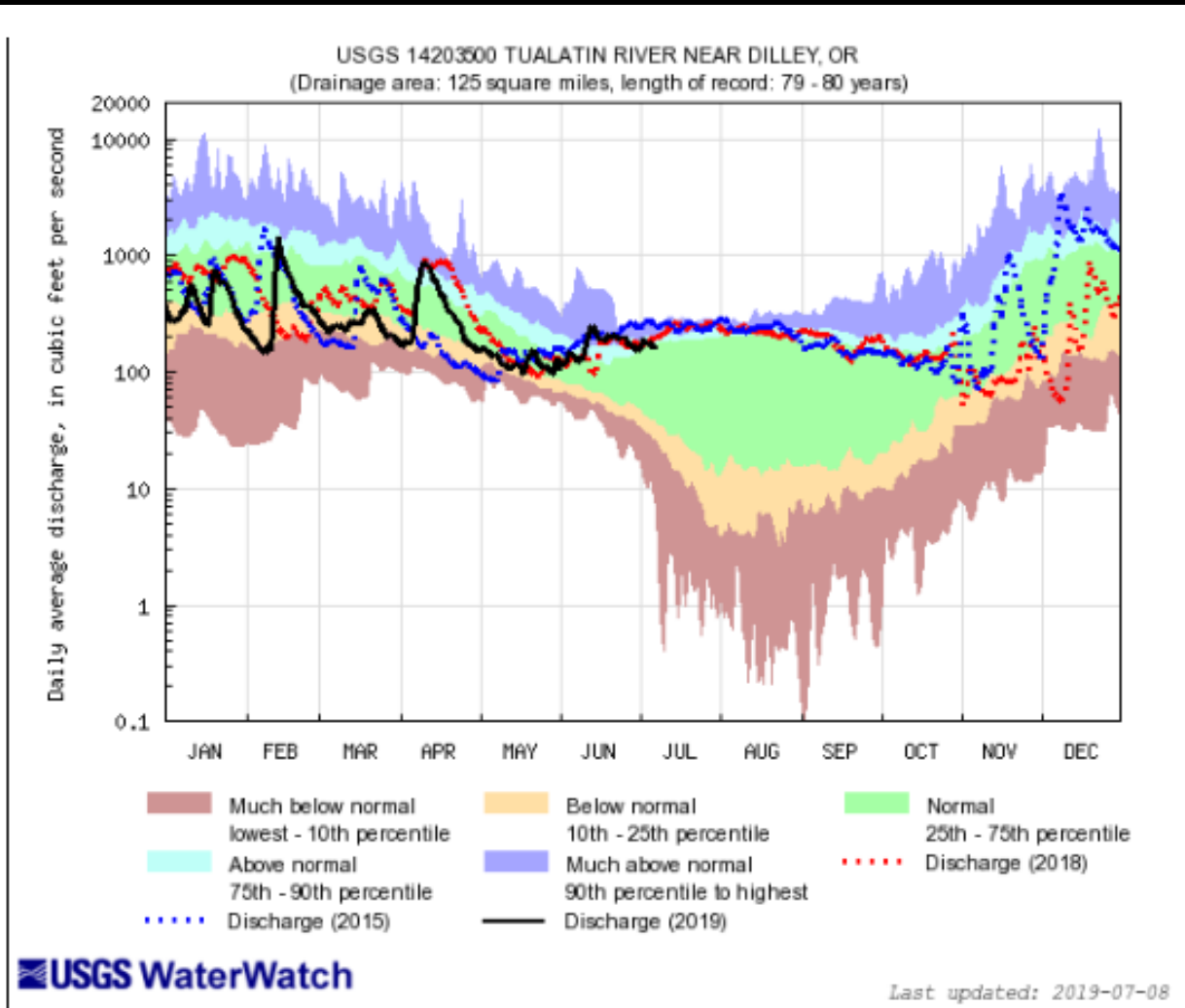
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile-highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14141500 Little Sandy R nr Bull Run



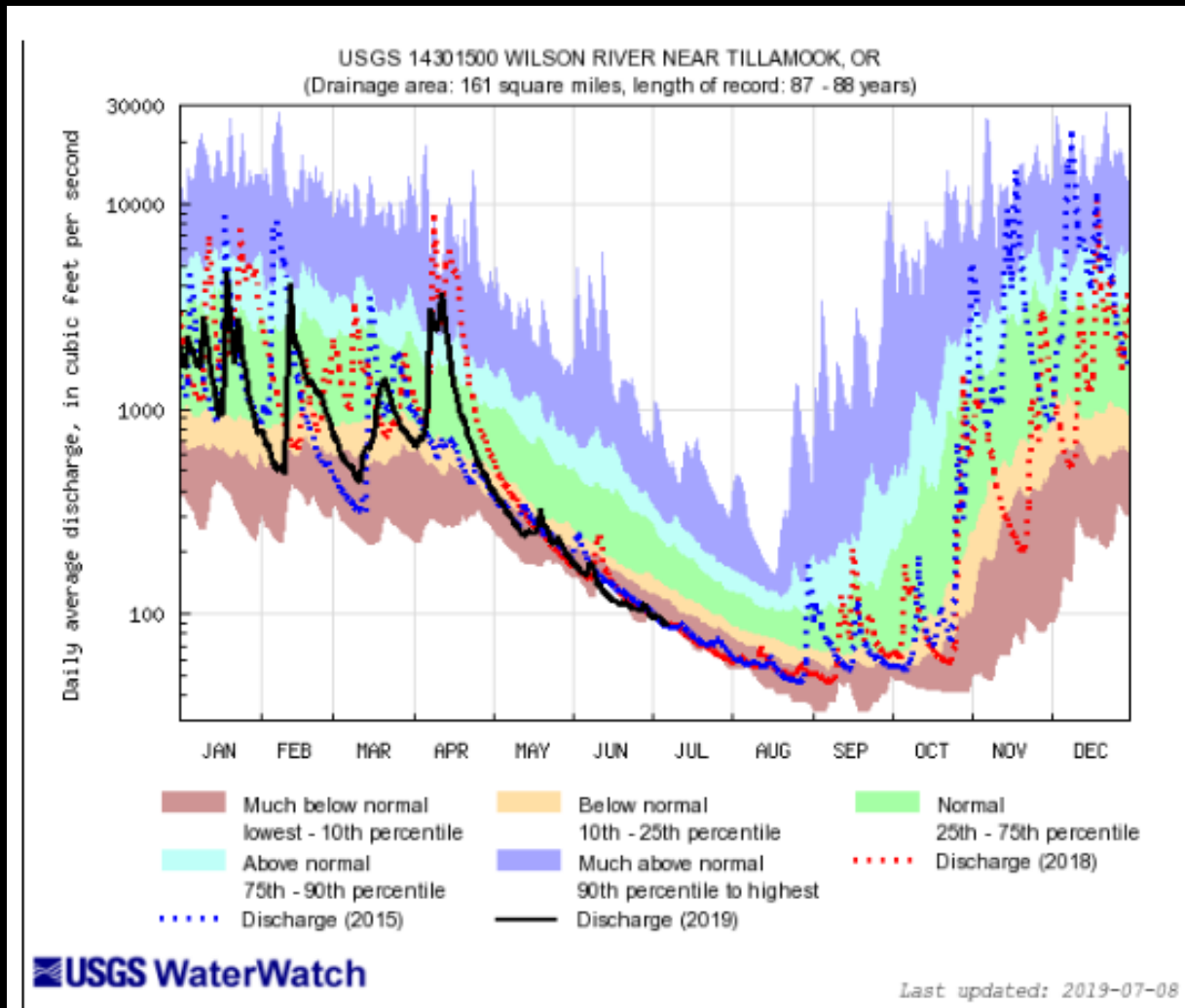
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile - highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14203500 Tualatin R nr Dilley



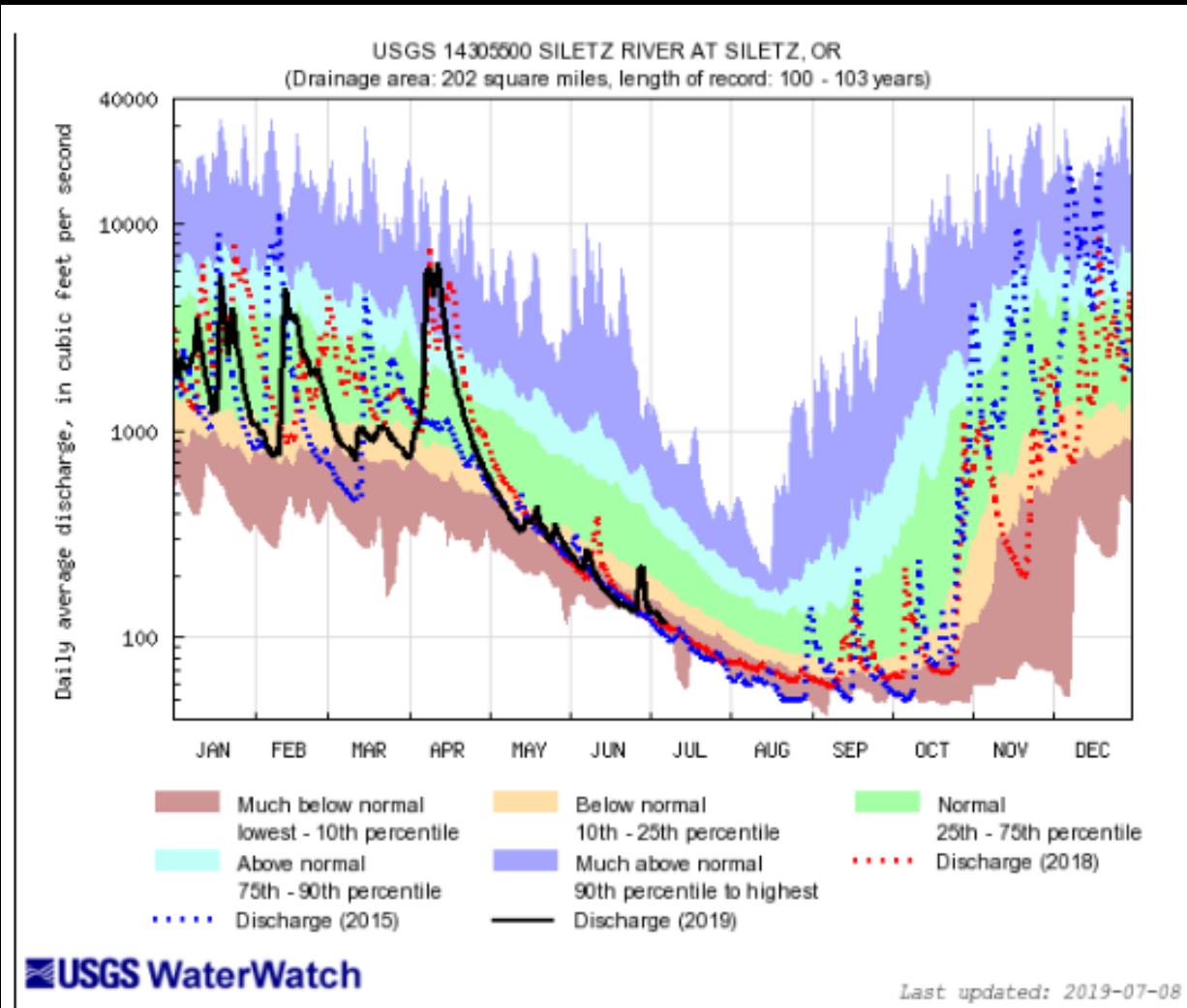
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile - highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14301500 Wilson R nr Tillamook



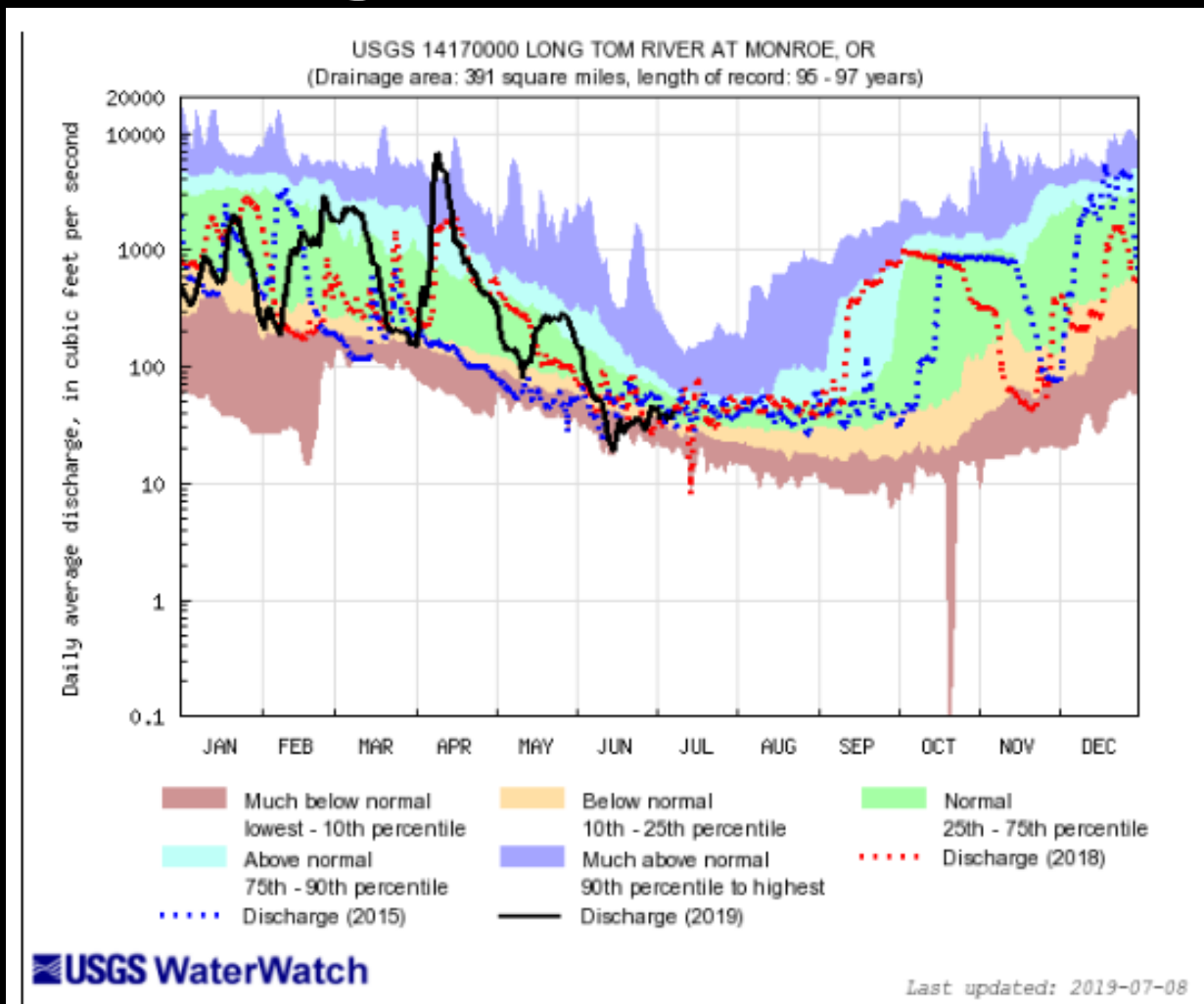
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile-highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14305500 Siletz R at Siletz



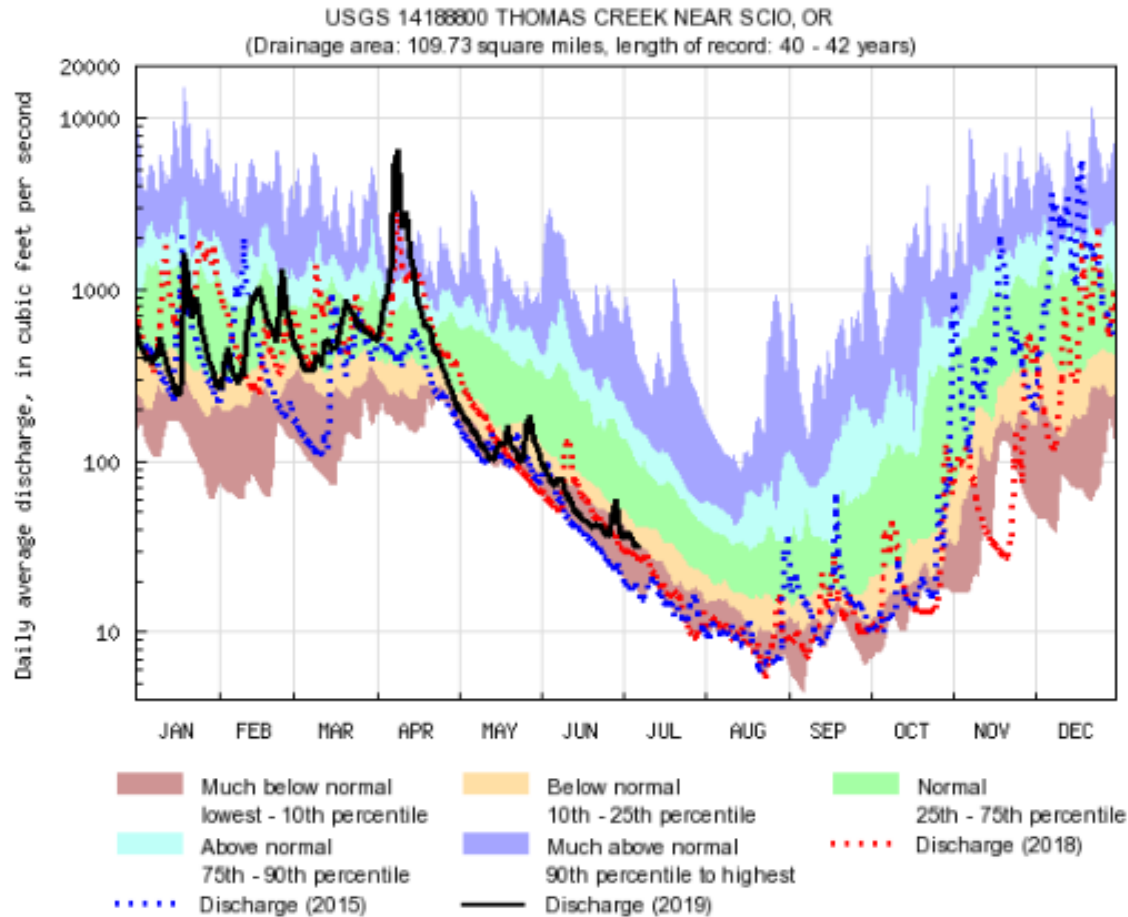
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14170000 Long Tom R at Monroe



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

# 14188800 Thomas Ck nr Scio



USGS WaterWatch

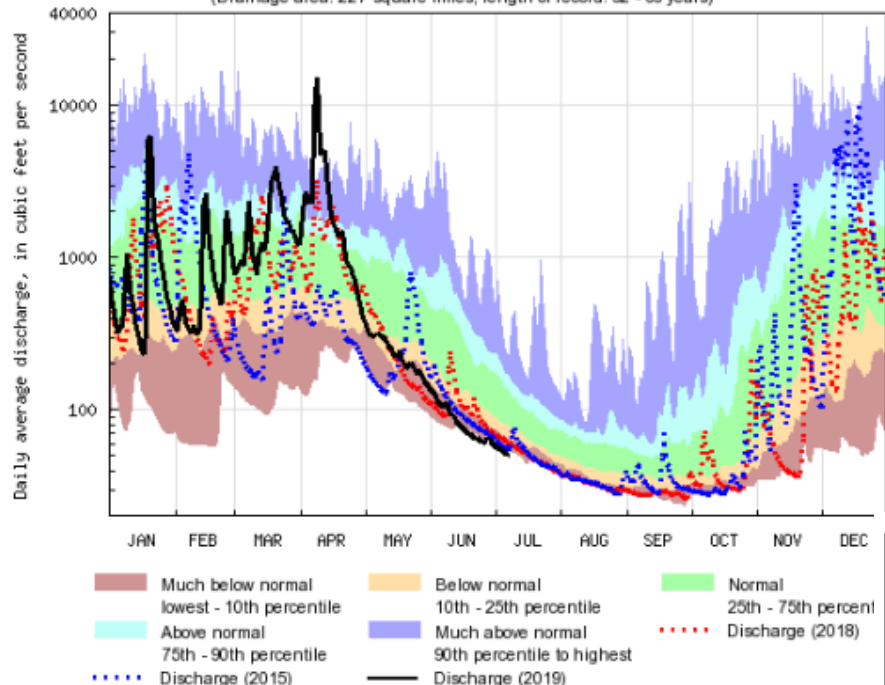
Last updated: 2019-07-08

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	



# 1431670 Steamboat Ck nr Glide

USGS 14316700 STEAMBOAT CREEK NEAR GLIDE, OR  
(Drainage area: 227 square miles, length of record: 62 - 63 years)



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

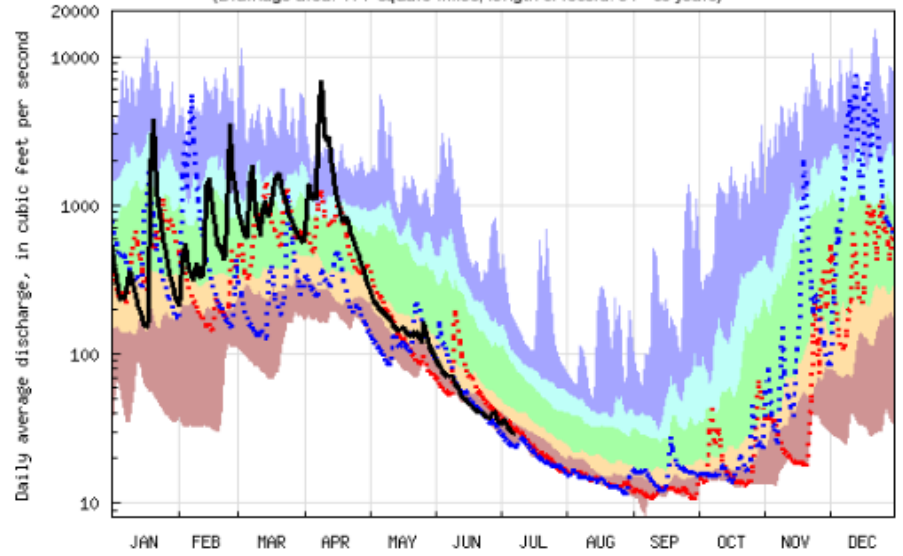
- Much below normal
- Below normal
- Normal
- Above normal
- Much above normal
- Discharge (2018)
- Discharge (2015)
- Discharge (2019)

USGS WaterWatch

Last updated: 2019-

# 14318000 Little R at Peel

USGS 14318000 LITTLE RIVER AT PEEL, OR  
(Drainage area: 177 square miles, length of record: 54 - 55 years)



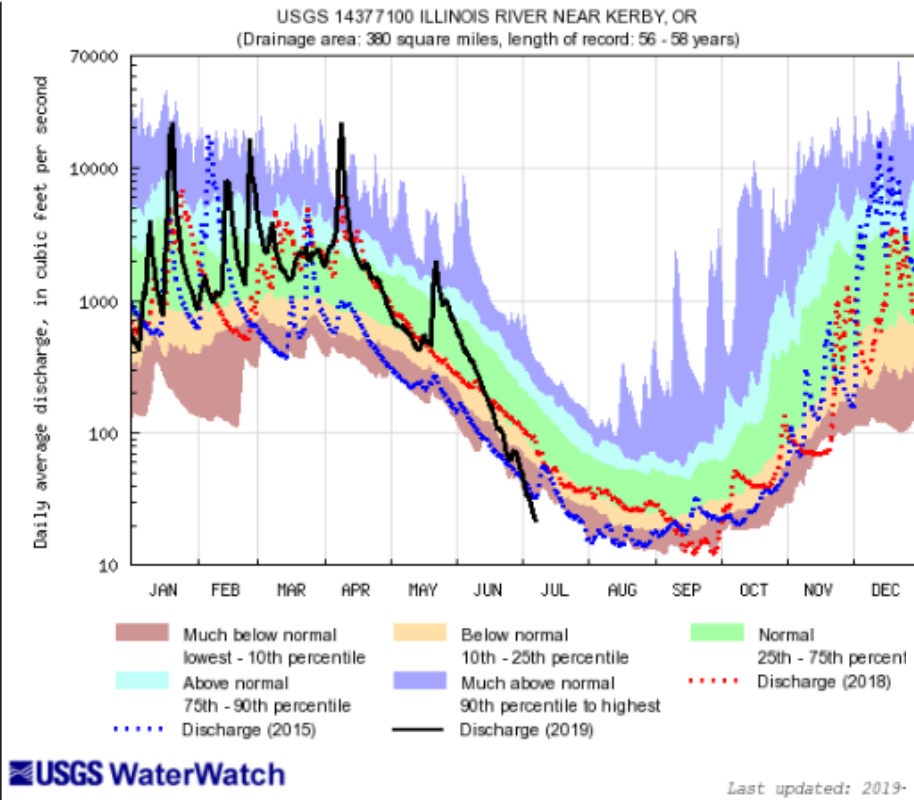
- Much below normal
- Below normal
- Normal
- Above normal
- Much above normal
- Discharge (2018)
- Discharge (2015)
- Discharge (2019)

USGS WaterWatch

Last updated: 2019-07-08

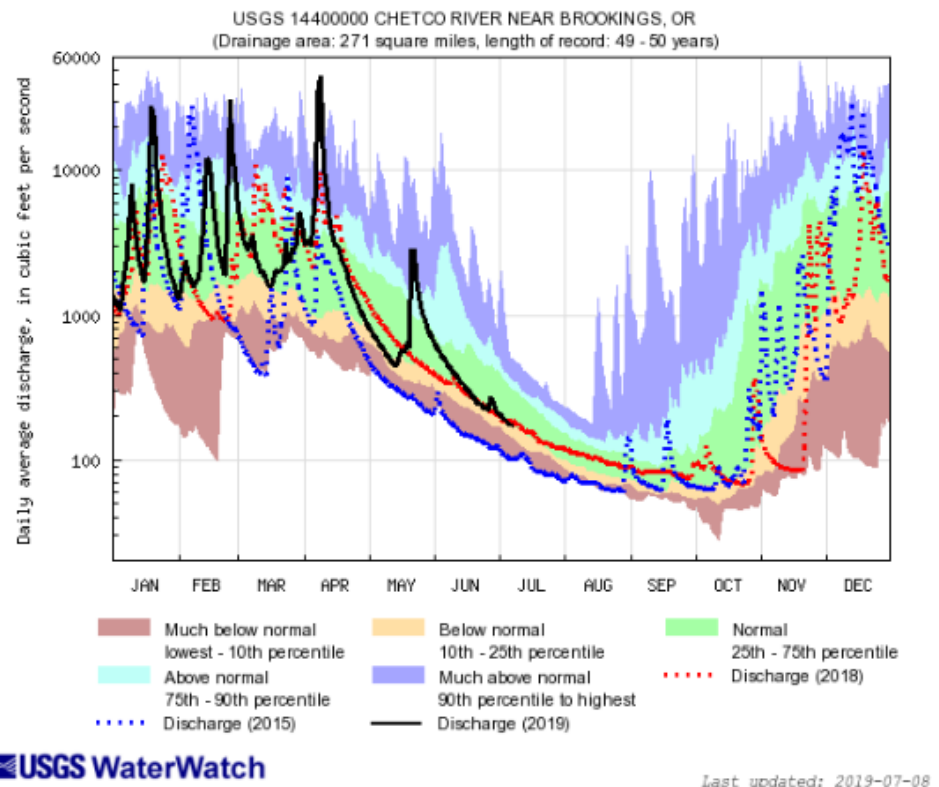


# 14377100 Illinois R nr Kirby

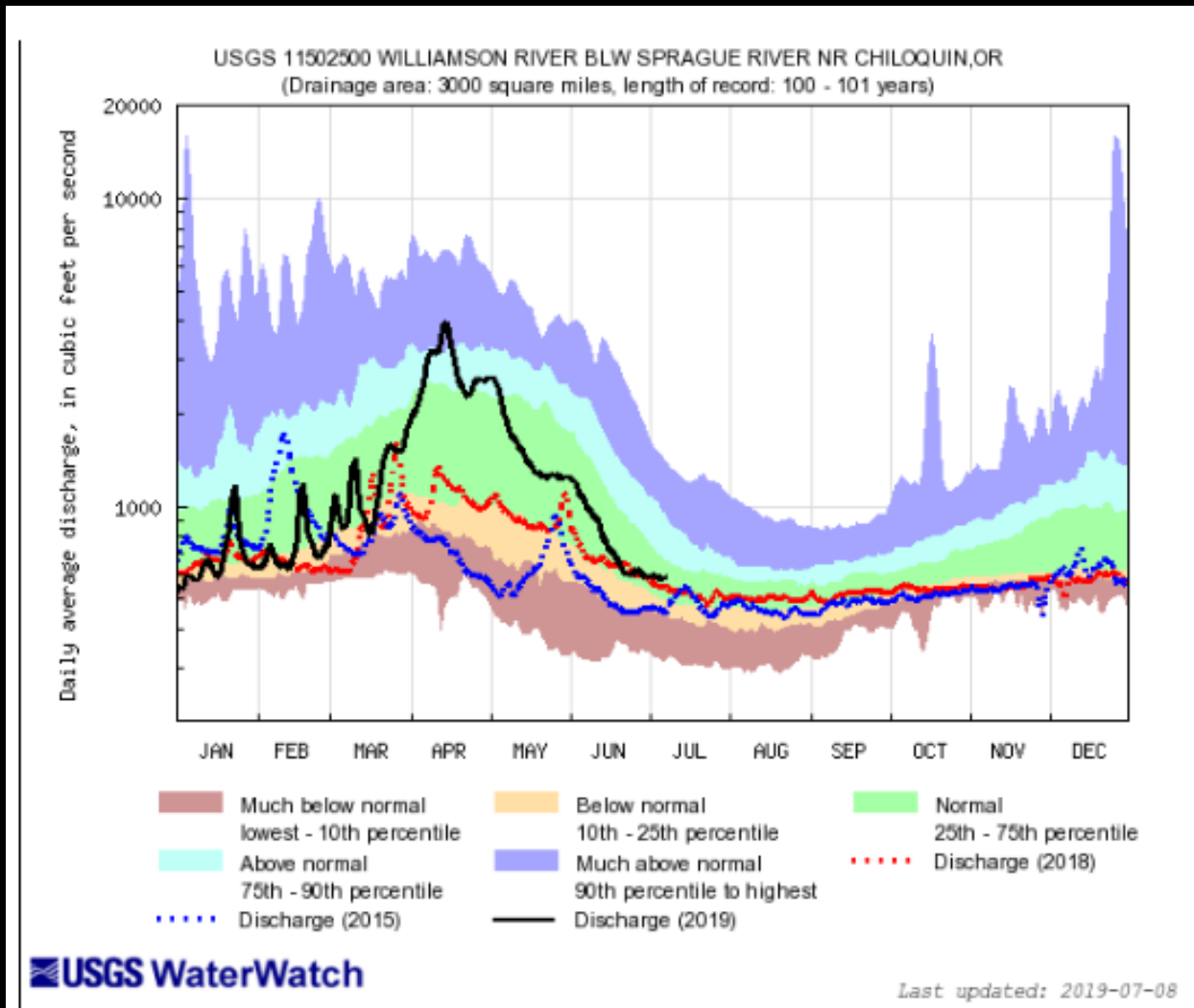


Explanation - Percentile classes					Flow
lowest-10th percentile	10-24	25-75	76-90	90th percentile - highest	
Much below normal	Below normal	Normal	Above normal	Much above normal	

# 14400000 Chetco R nr Brookings



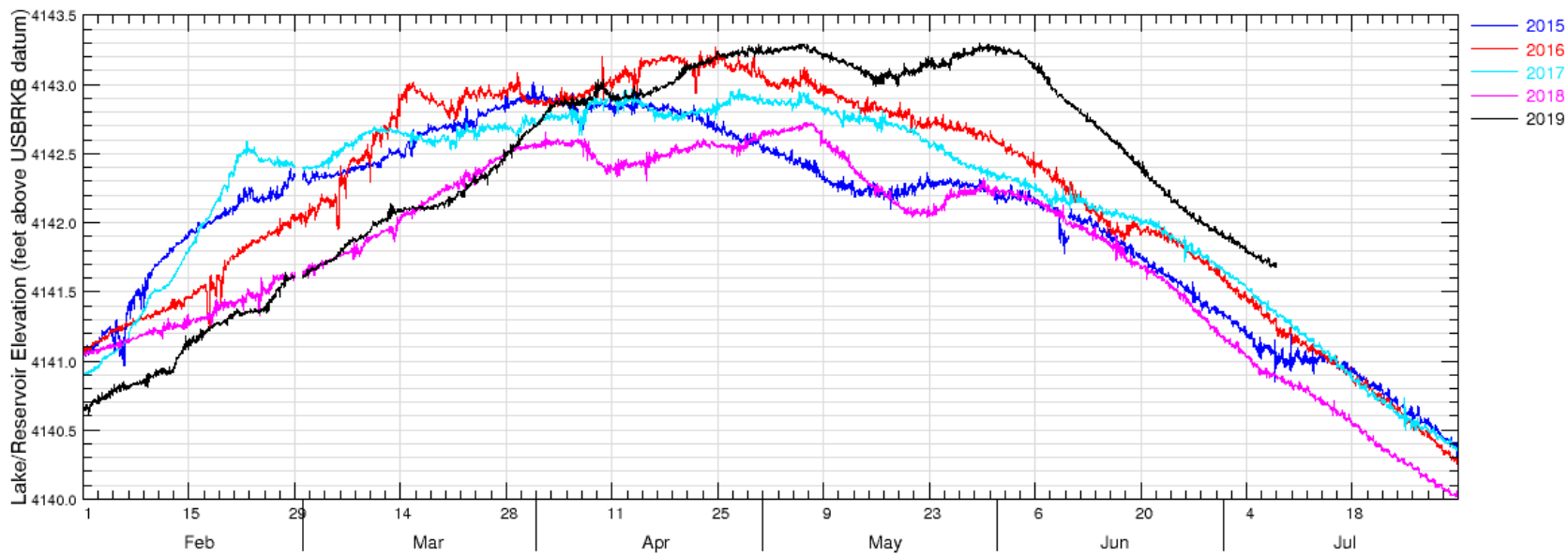
# 11502500 Williamson R blw Sprague R



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	

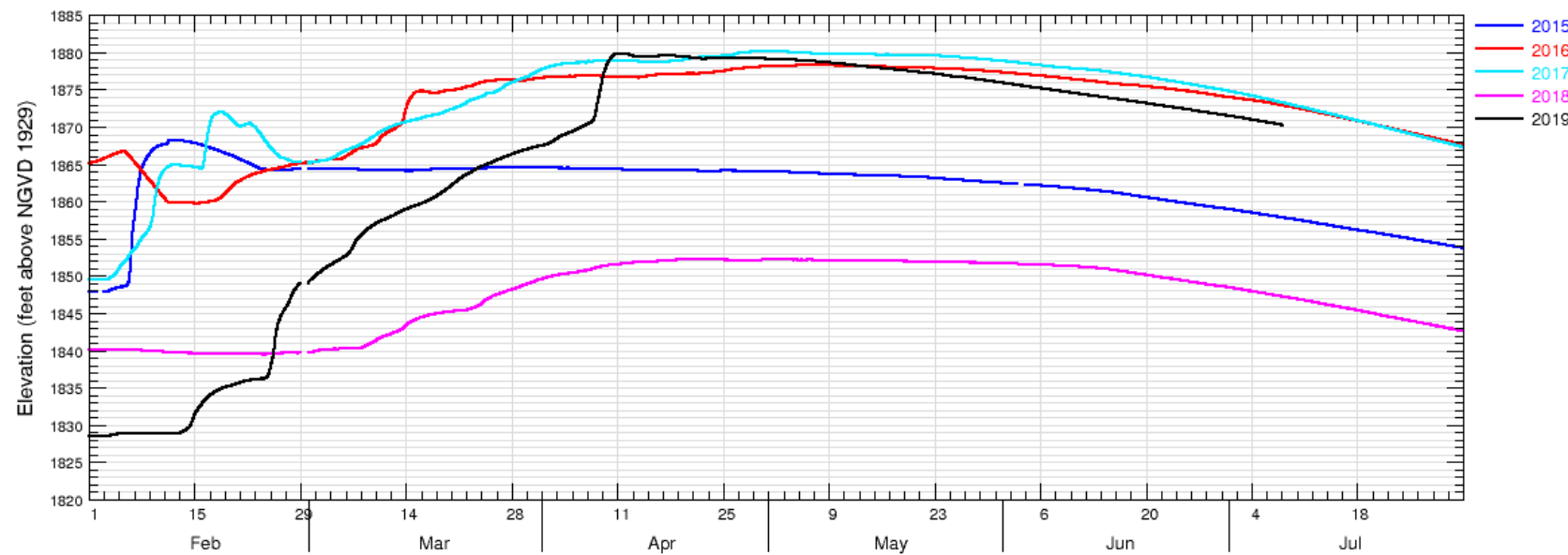
Upper Klamath Lake nr Klamath Falls, OR [weighted/mean] (11507001)

Data from U.S. Geological Survey



Galesville Reservoir near Azalea, OR (14308995)

Data from U.S. Geological Survey



US GEOLOGICAL SURVEY, OREGON WATER SCIENCE CENTER  
WATER AVAILABILITY REPORT FOR JUNE 2019

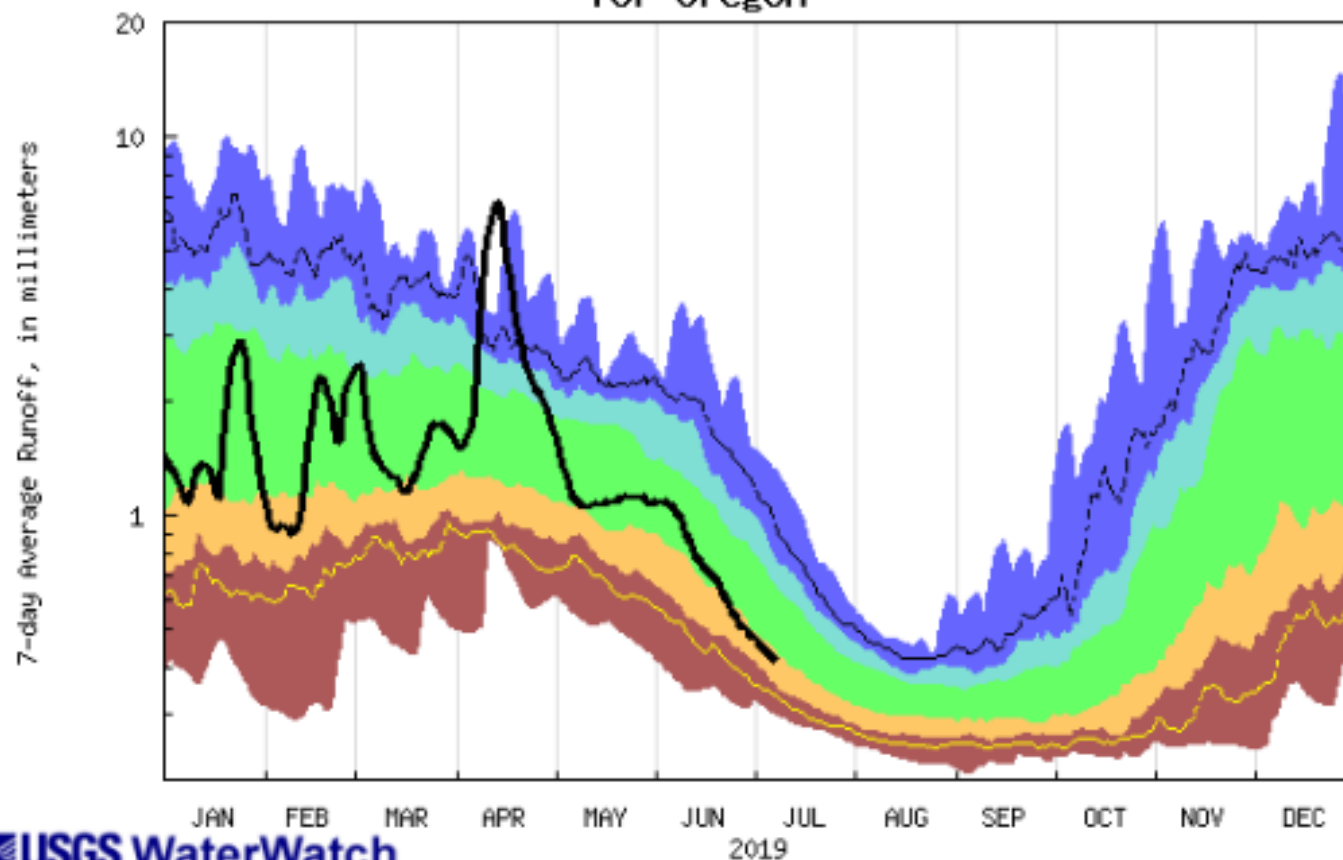
Station	NRCS SWSI Basin	Monthly mean discharge		Change in dis- charge from	Accumulated Runoff For the Period Oct. to June
		Cubic feet per second	Percent of average	previous month (percent)	Percent of average
Donner Und Blitzen nr Frenchglen	Harney	409	139	-15	125
(*)Deep Creek above Adel	Lake County	226	114	-57	138
(*)Chewaucan River near Paisley	Lake County	258	103	-57	121
Williamson River near Chiloquin	Klamath	804	85	-50	90
Owyhee River near Rome	Owyhee	2,110	263	-10	109
(*)NF Malheur River near Beulah	Malheur	193	117	-65	127
Grande Ronde R at Troy	Grande Ronde Powder/Burnt	5,404	102	-40	123
Umatilla River nr Gibbon	Umatilla Lower John Day	122	69	-75	121
John Day River at Service Crk	Upper John Day	2,352	94	-61	125
(*)Little Deschutes River nr LaPine	Upper Deschutes	167	67	-49	79
Hood River nr Hood River	Lower Deschutes Mt.Hood	457	54	-50	74
Willamette River at Salem	Willamette	11,261	77	-26	80
Wilson River near Tillamook	North Coast	130	33	-51	67
Umpqua River near Elkton	Rogue/Umpqua	1,979	54	-50	94
Rogue River near Agness	Rogue/Umpqua	3,580	95	-26	102
SF Coquille River at Powers	South Coast	75	36	-63	97
Chetco River near Brookings	South Coast	348	47	-60	90

All data should be considered provisional and subject to revision.  
Percent of average computed using 30-year base period, water years 1981-2010.  
(\*) provided by Oregon Water Resources Department

7/2/2019



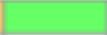
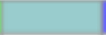





### Duration hydrograph of 7-day average runoff for Oregon



**USGS WaterWatch**

Last updated: 2019-07-08

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