

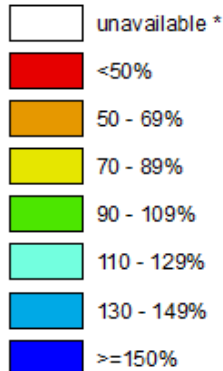


# Statewide SNOTEL Precipitation is 95% of normal

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

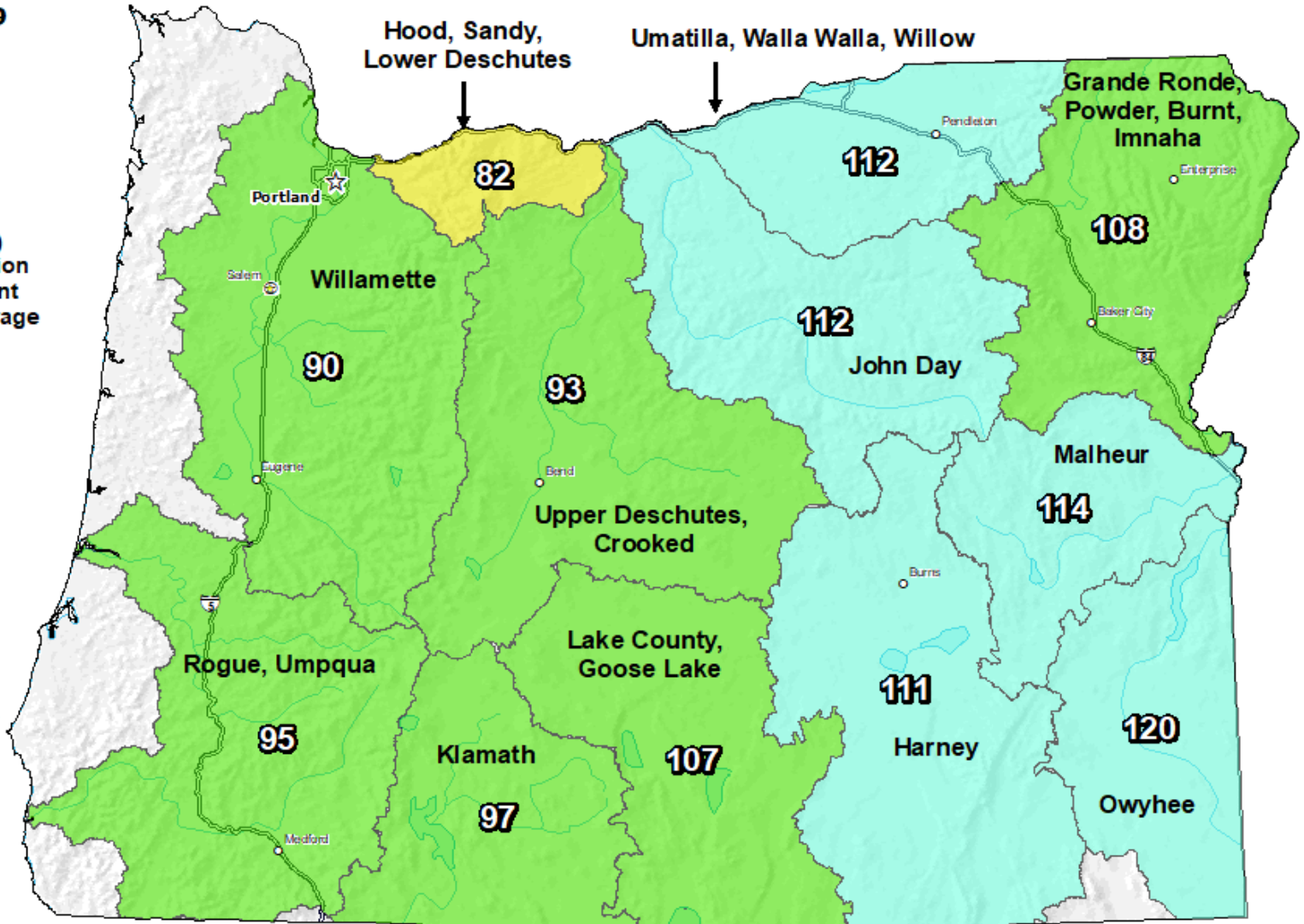
Sep 10, 2019

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

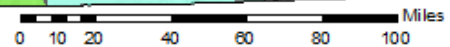


\* Data unavailable at time  
of posting or measurement  
is not representative at this  
time of year

*Provisional Data  
Subject to Revision*

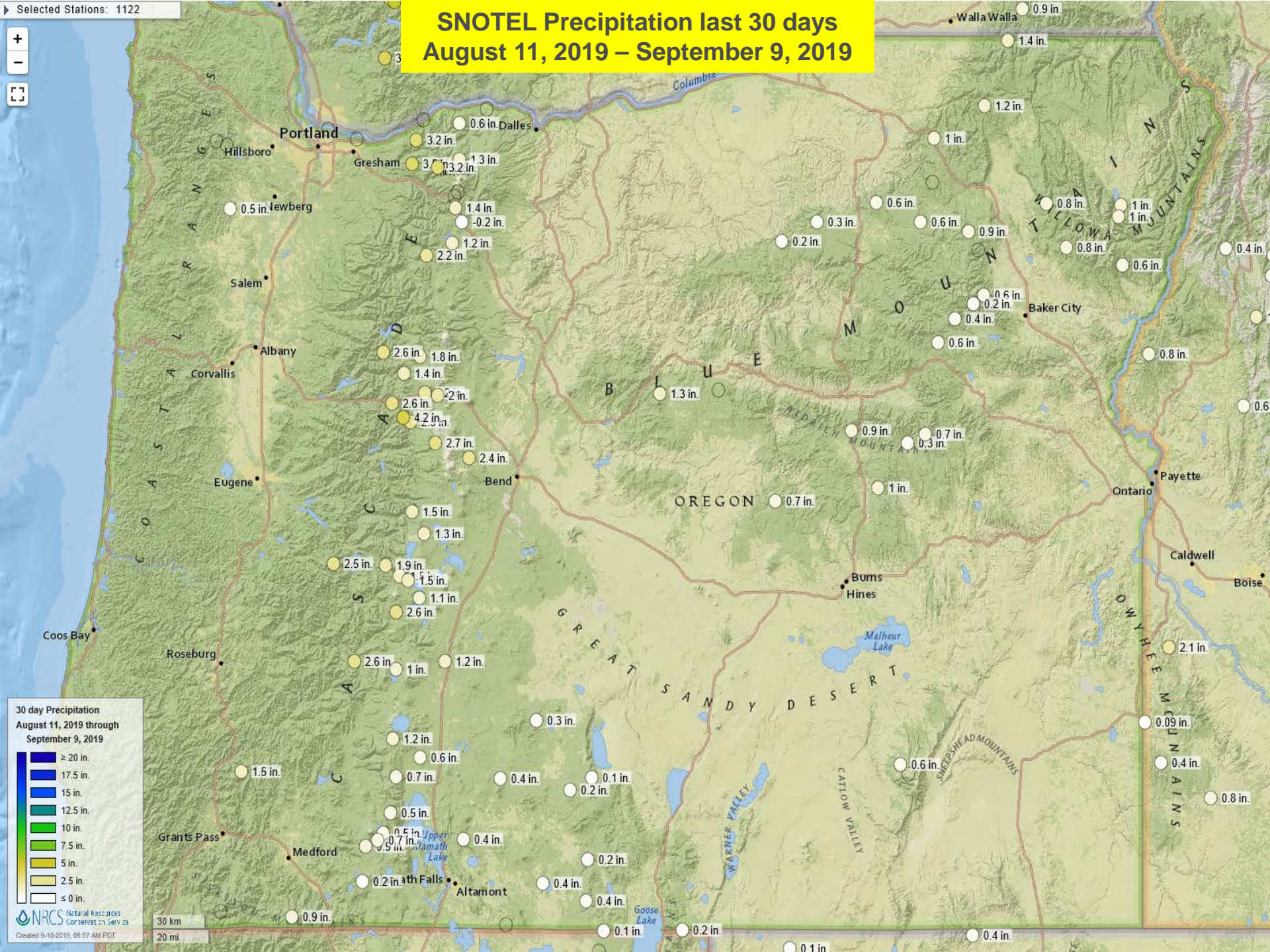


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).



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

# SNOTEL Precipitation last 30 days August 11, 2019 – September 9, 2019



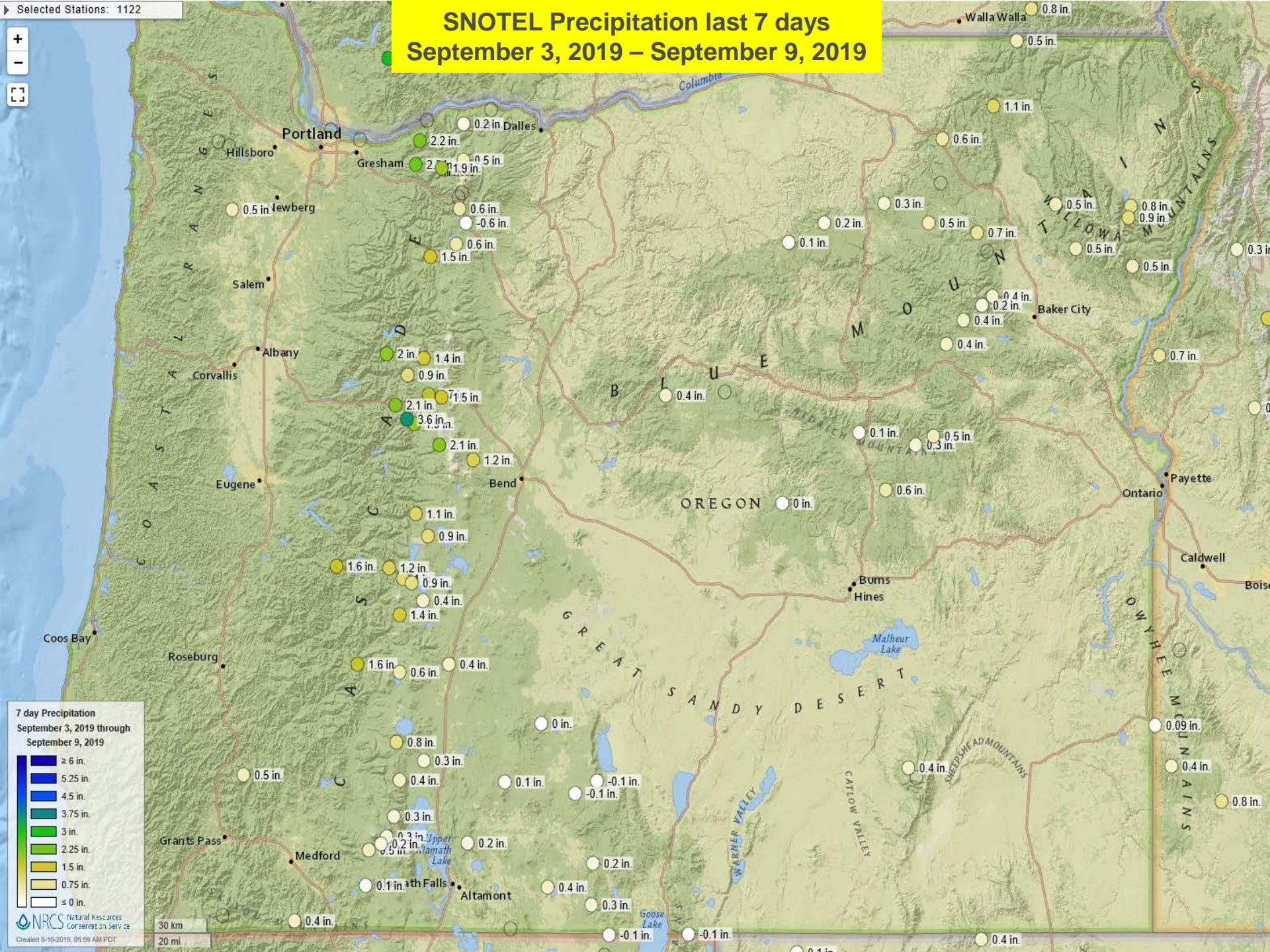
**30 day Precipitation**  
August 11, 2019 through  
September 9, 2019

|              |          |
|--------------|----------|
| Dark Blue    | ≥ 20 in. |
| Blue         | 17.5 in. |
| Light Blue   | 15 in.   |
| Teal         | 12.5 in. |
| Green        | 10 in.   |
| Light Green  | 7.5 in.  |
| Yellow-Green | 5 in.    |
| Yellow       | 2.5 in.  |
| Light Yellow | 0.1 in.  |
| White        | ≤ 0 in.  |

Natural Resources Conservation Service  
Created 9-10-2019, 05:57 AM PDT

30 km  
20 mi

# SNOTEL Precipitation last 7 days September 3, 2019 – September 9, 2019

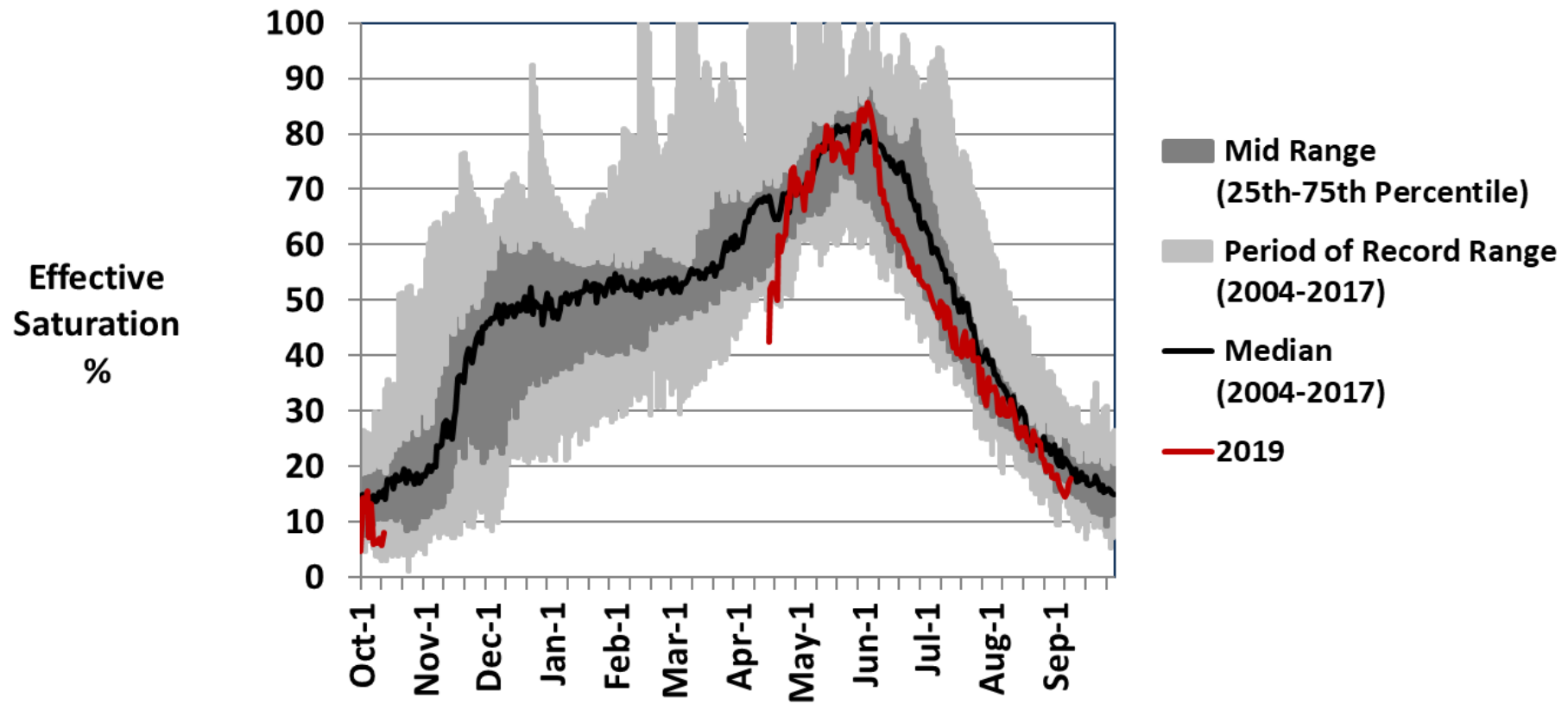
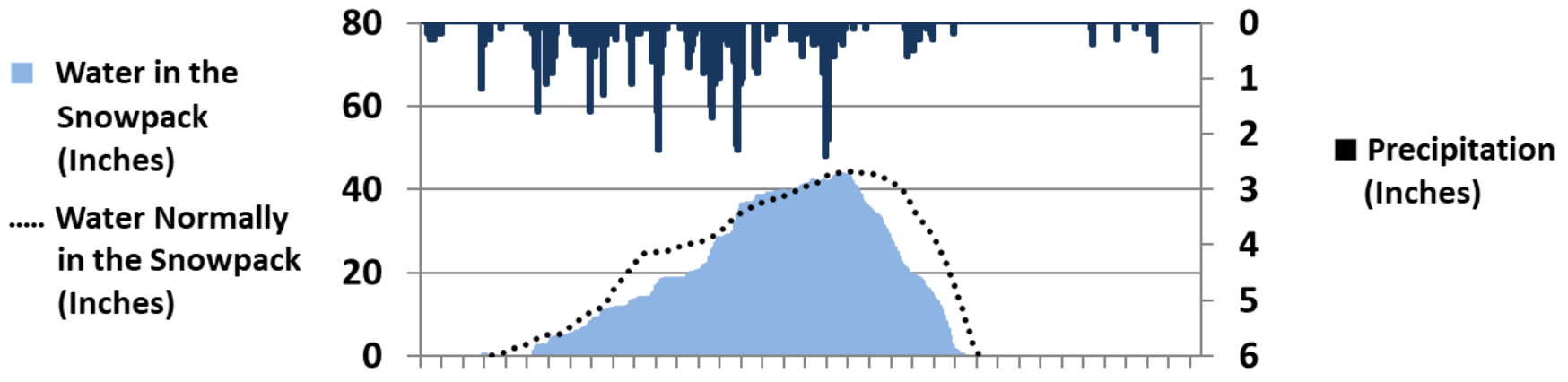


**7 day Precipitation**  
September 3, 2019 through  
September 9, 2019

|              |          |
|--------------|----------|
| Dark Blue    | ≥ 6 in.  |
| Blue         | 5.25 in. |
| Light Blue   | 4.5 in.  |
| Teal         | 3.75 in. |
| Green        | 3 in.    |
| Light Green  | 2.25 in. |
| Yellow-Green | 1.5 in.  |
| Yellow       | 0.75 in. |
| White        | ≤ 0 in.  |

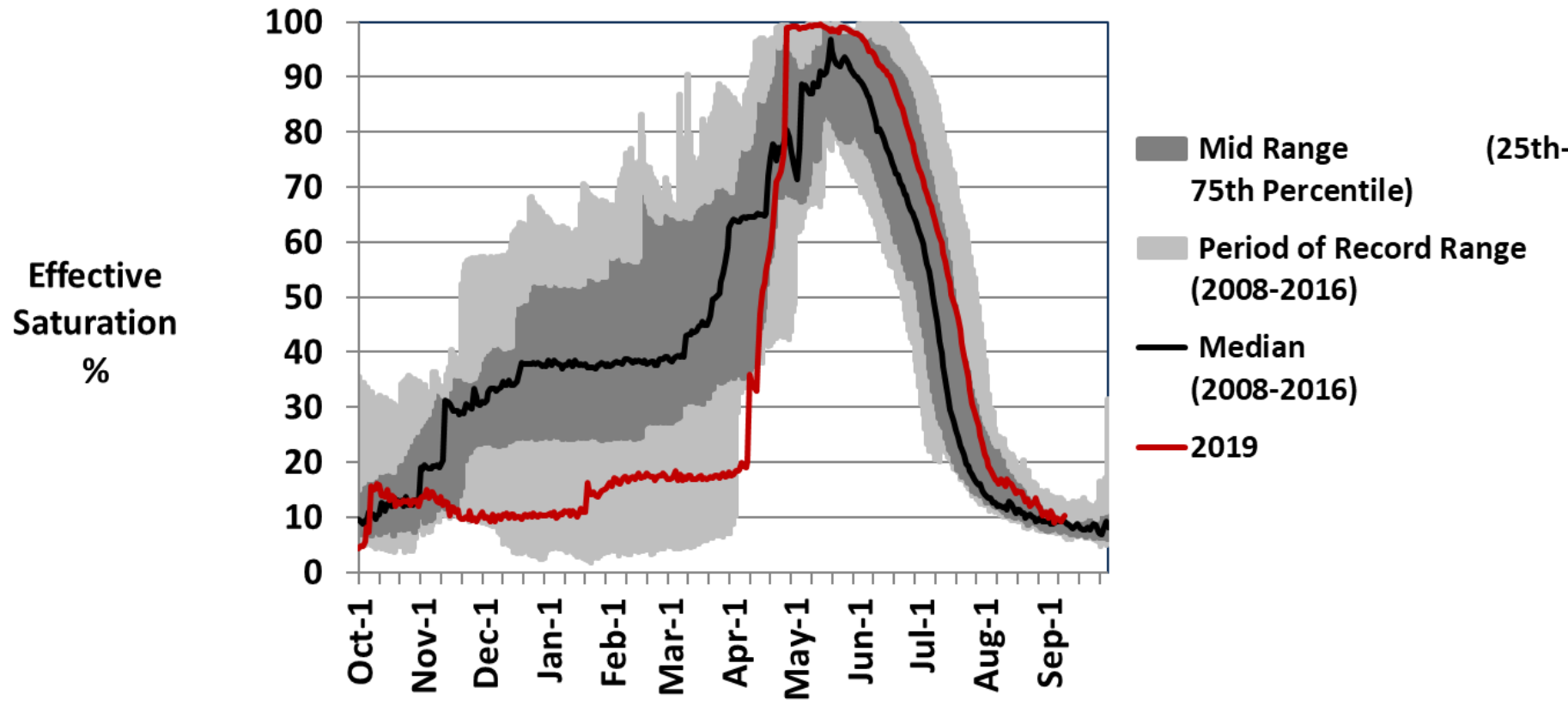
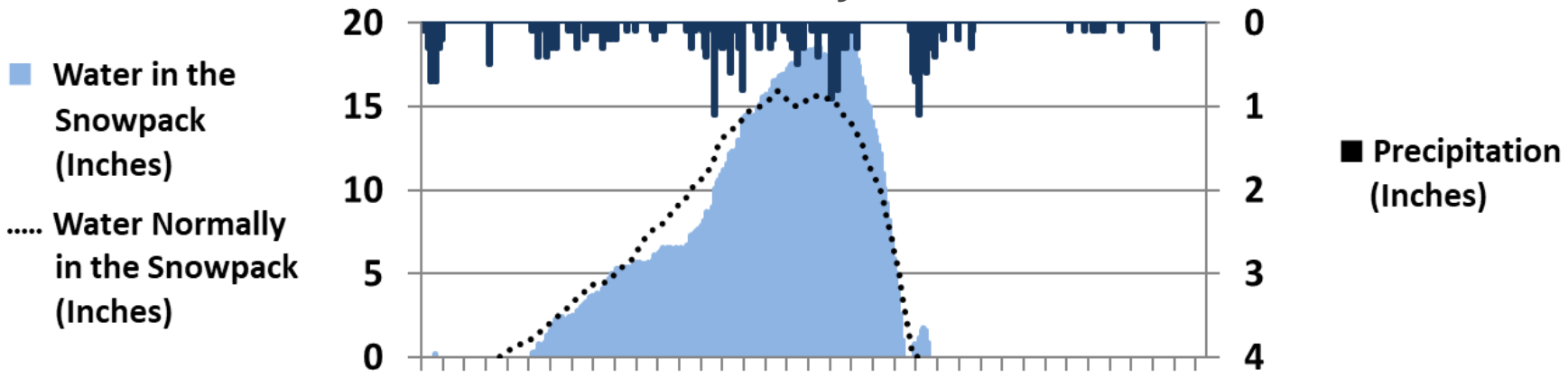
30 km  
20 mi

# ANNIE SPRINGS – Klamath – Elev = 6010'



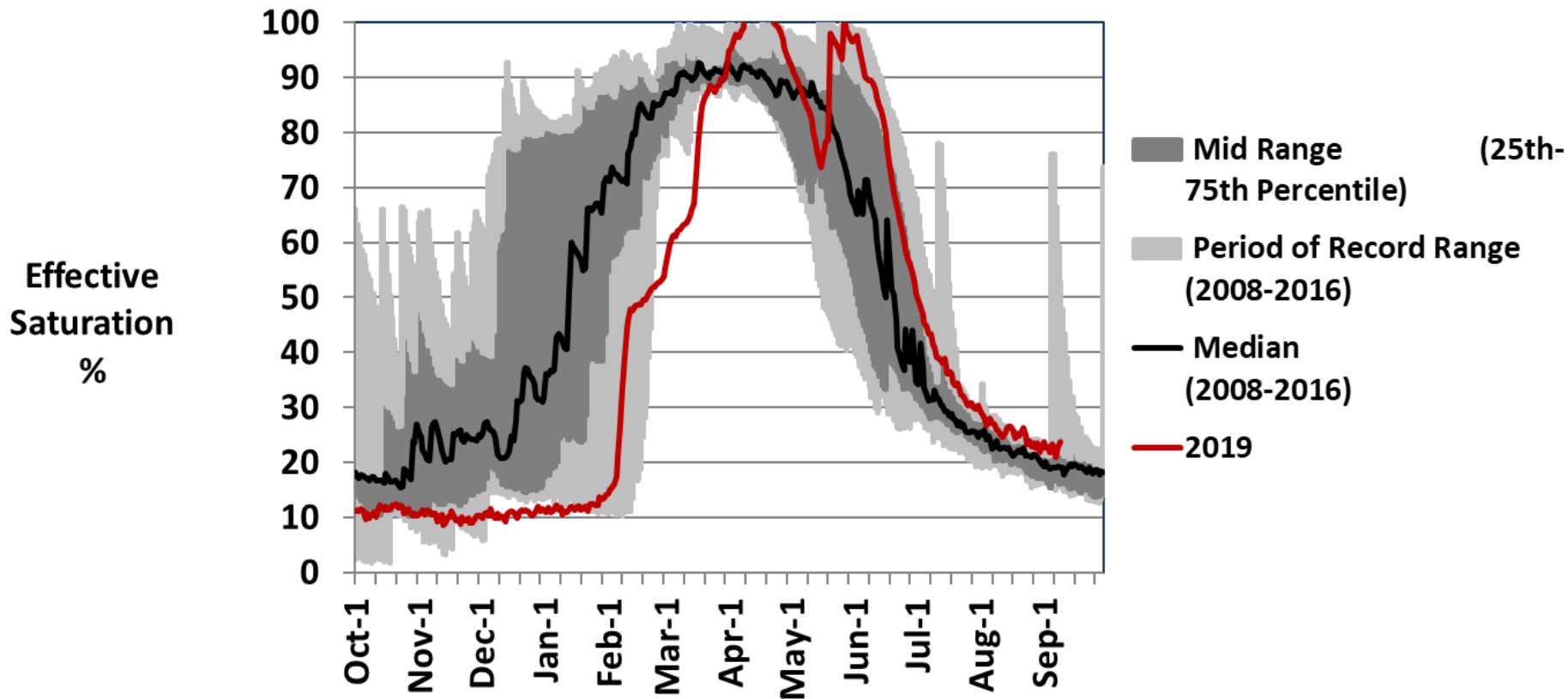
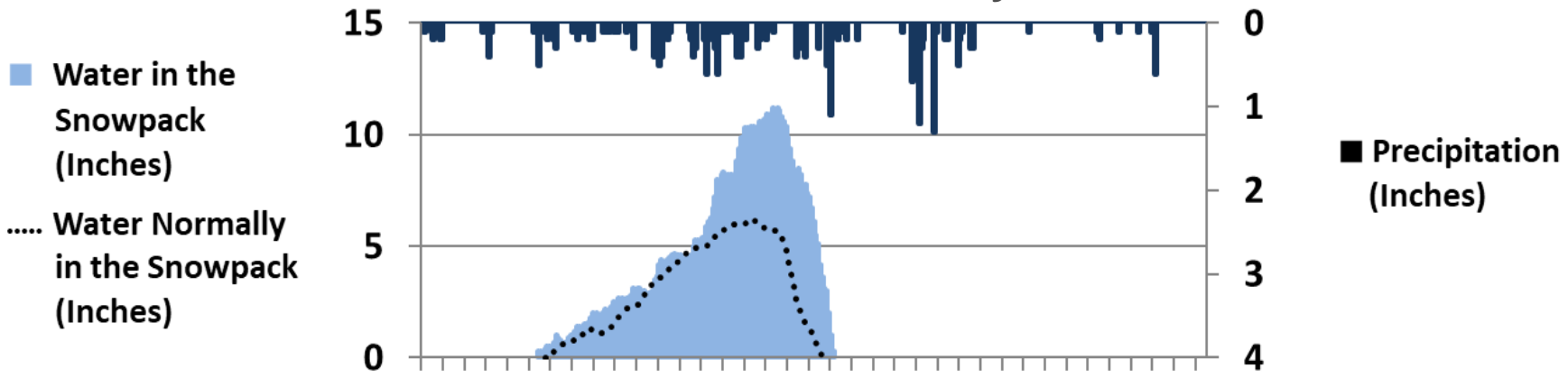
*Provisional data –Subject to future edits*

# SILVIES – Harney – Elev = 6990'



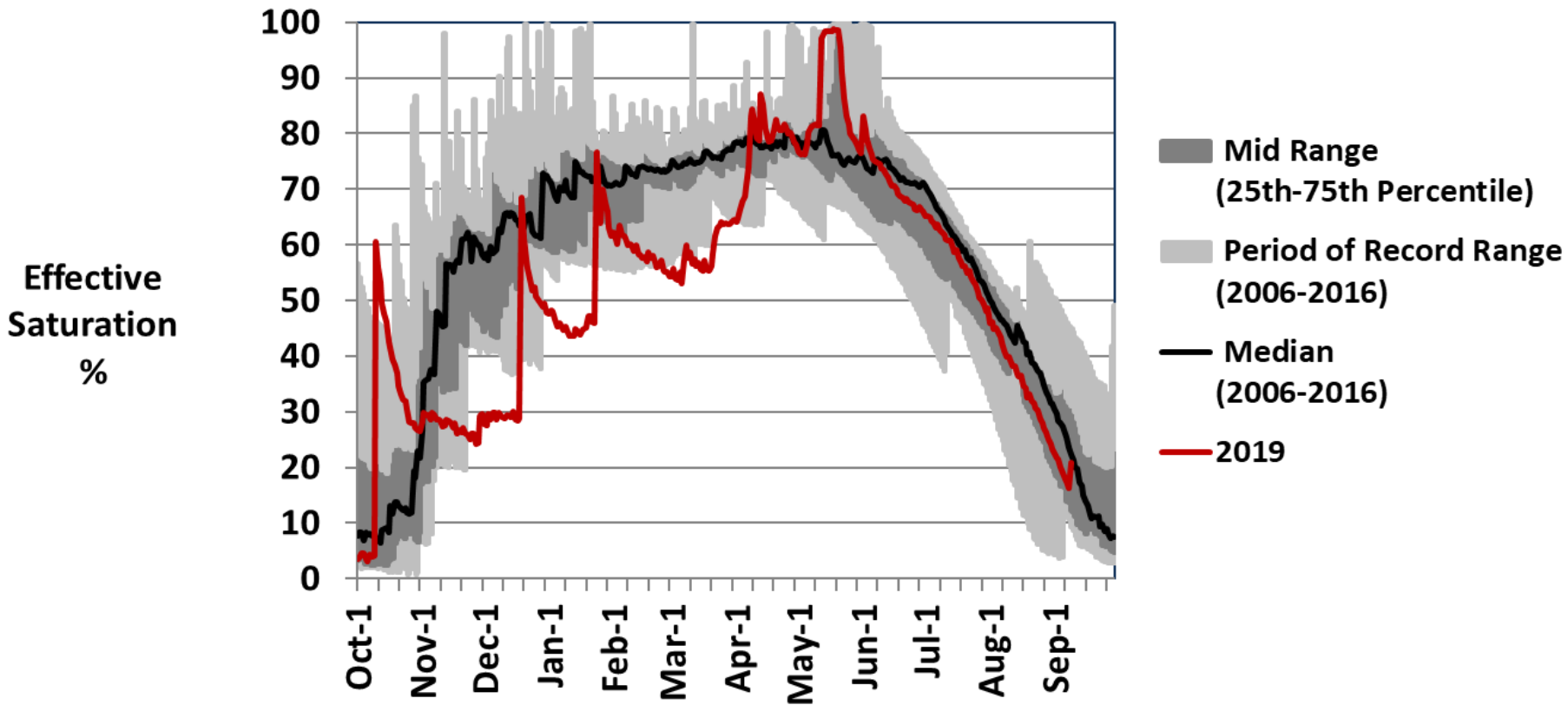
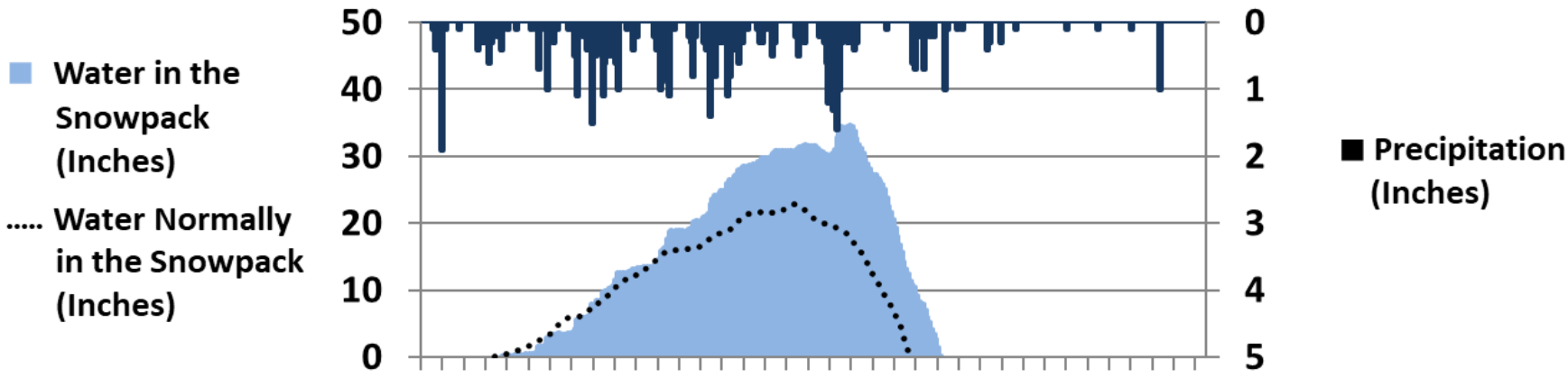
*Provisional data –Subject to future edits*

# ROCK SPRINGS – Grant/Harney – Elev = 5290'



Provisional data –Subject to future edits

# HIGH RIDGE – Umatilla/Union – Elev = 4920'





# 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

September 10, 2019  
National Weather Service Update

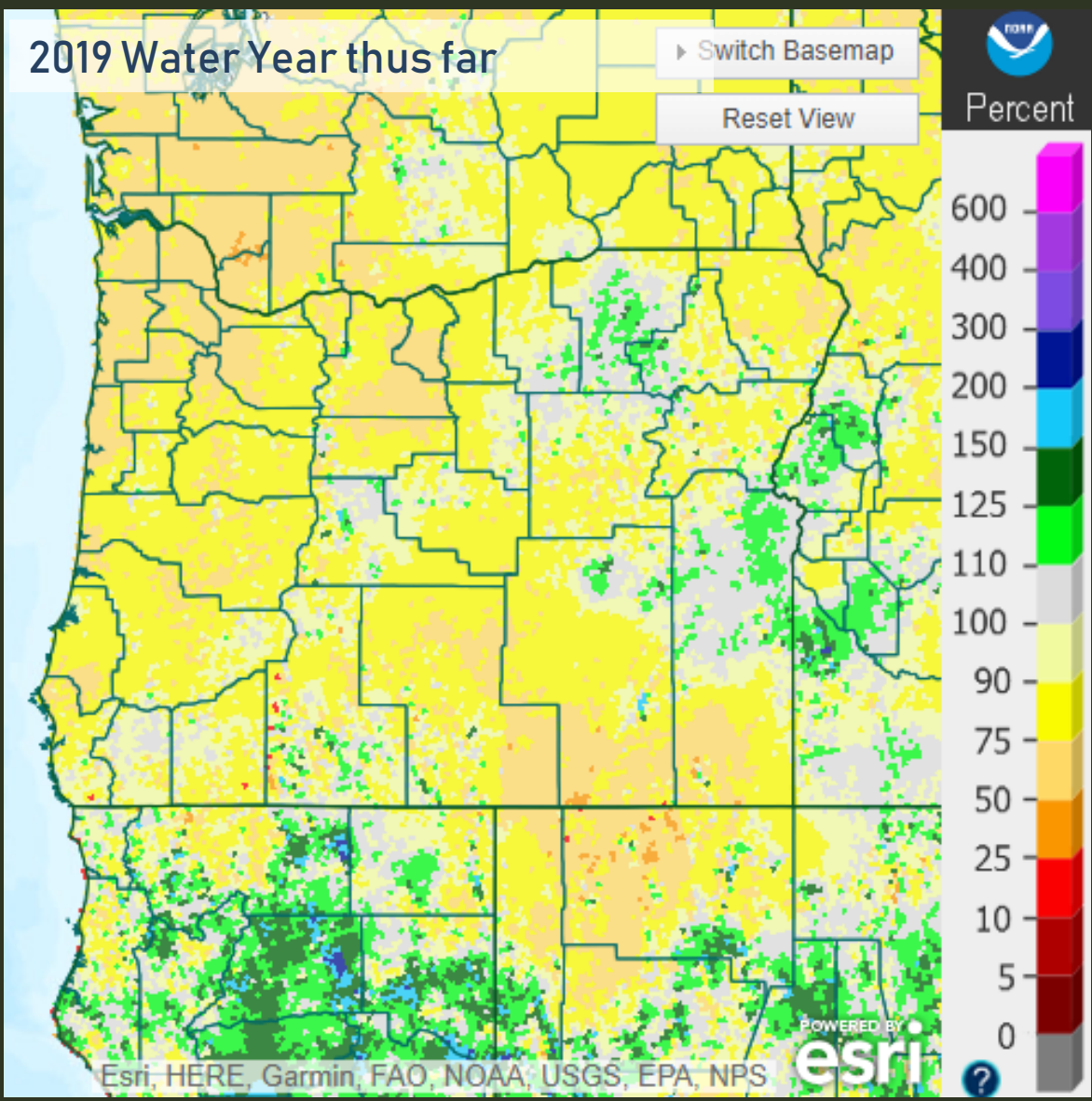


**Andy Bryant**  
NOAA/NWS Portland  
Weather Forecast Office

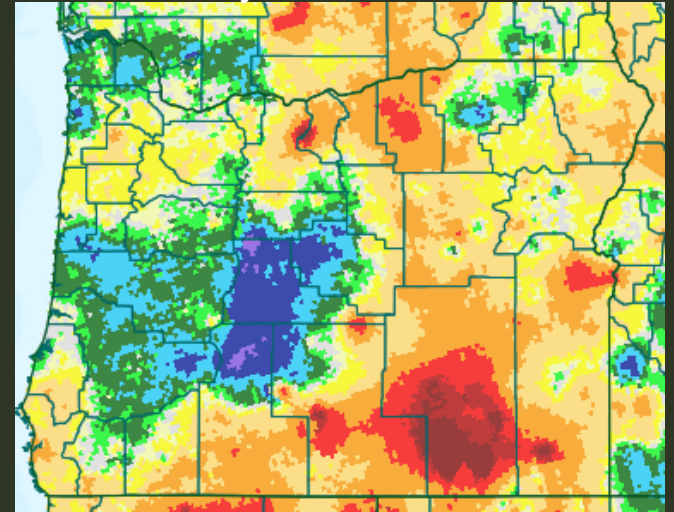
**Amy Burke**  
NOAA/NWS/Northwest River Forecast Center



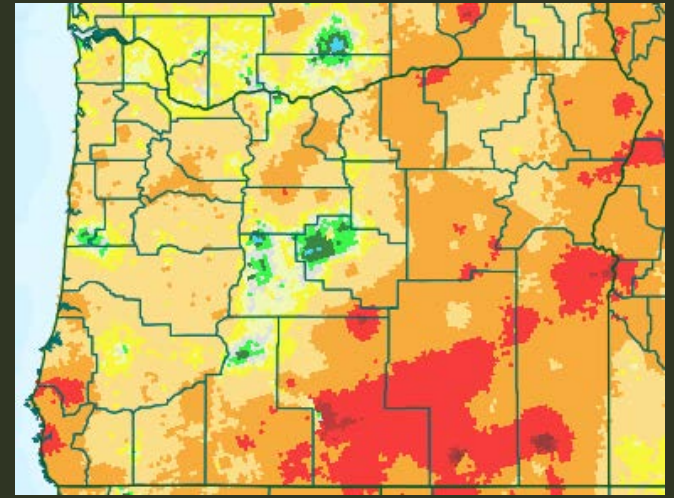
# Precipitation % of Average



### Past 30 Days



### Past 90 Days

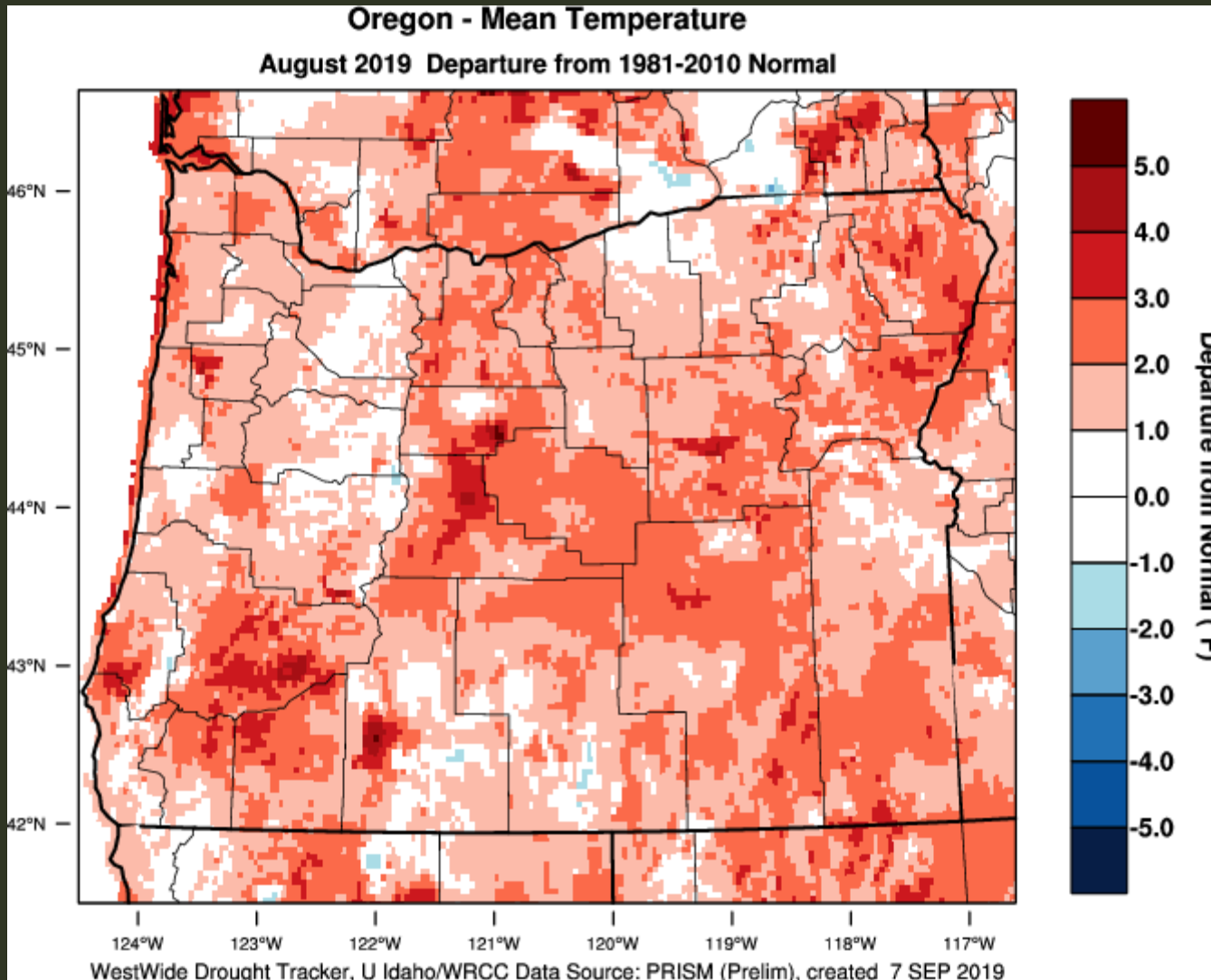


Precipitation Data as of Sep 10, 2019

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





# Drought Monitor

## U.S. Drought Monitor West

August 6, 2019  
(Released Thursday, Aug. 8, 2019)

## U.S. Drought Monitor West

September 3, 2019  
(Released Thursday, Sep. 5, 2019)  
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|   | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|---|-------|-------|-------|-------|-------|------|
| Current                                 | 62.58 | 37.42 | 11.22 | 1.07  | 0.00  | 0.00 |
| Last Week<br>08-27-2019                 | 71.53 | 28.47 | 10.10 | 1.07  | 0.00  | 0.00 |
| 3 Months Ago<br>06-04-2019              | 87.05 | 12.95 | 5.45  | 0.63  | 0.00  | 0.00 |
| Start of<br>Calendar Year<br>01-01-2019 | 28.03 | 71.97 | 53.25 | 27.22 | 8.35  | 2.88 |
| Start of<br>Water Year<br>09-25-2018    | 13.91 | 86.09 | 59.57 | 39.68 | 18.15 | 4.36 |
| One Year Ago<br>09-04-2018              | 16.03 | 83.97 | 58.74 | 37.58 | 16.82 | 3.69 |

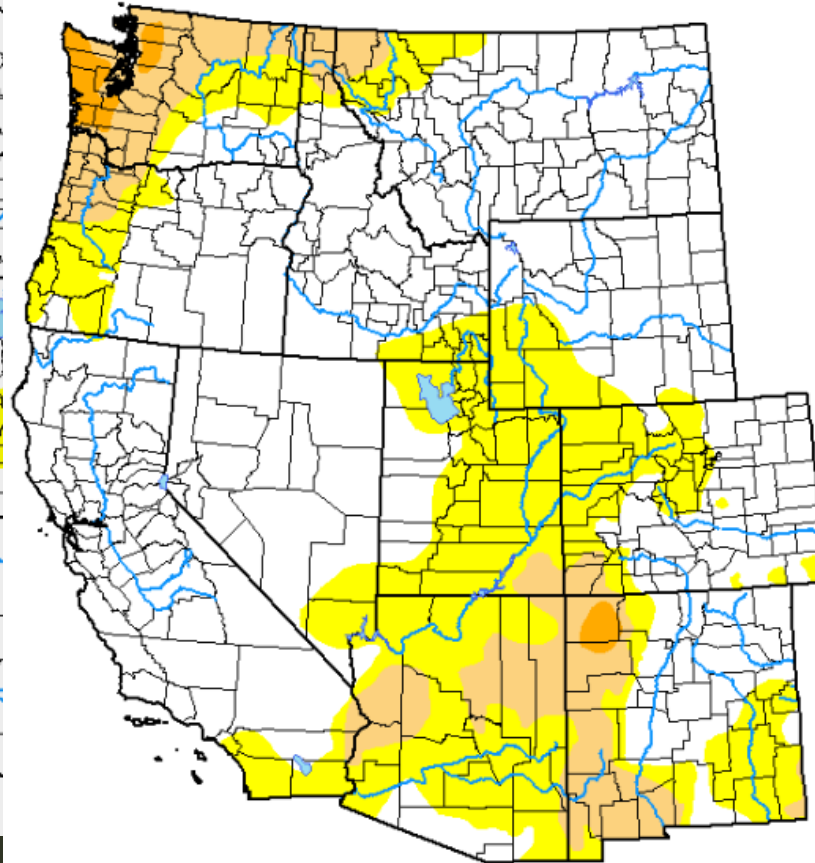
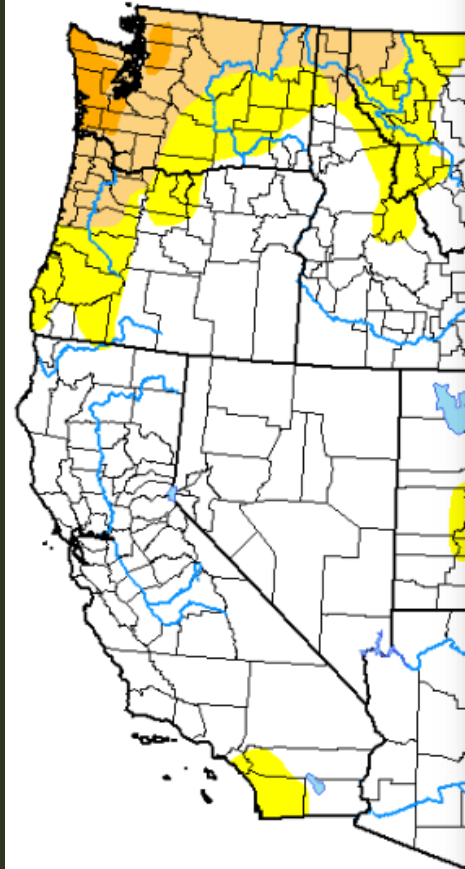
Intensity:

- 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:

David Miskus  
NOAA/NWS/NCEP/CPC

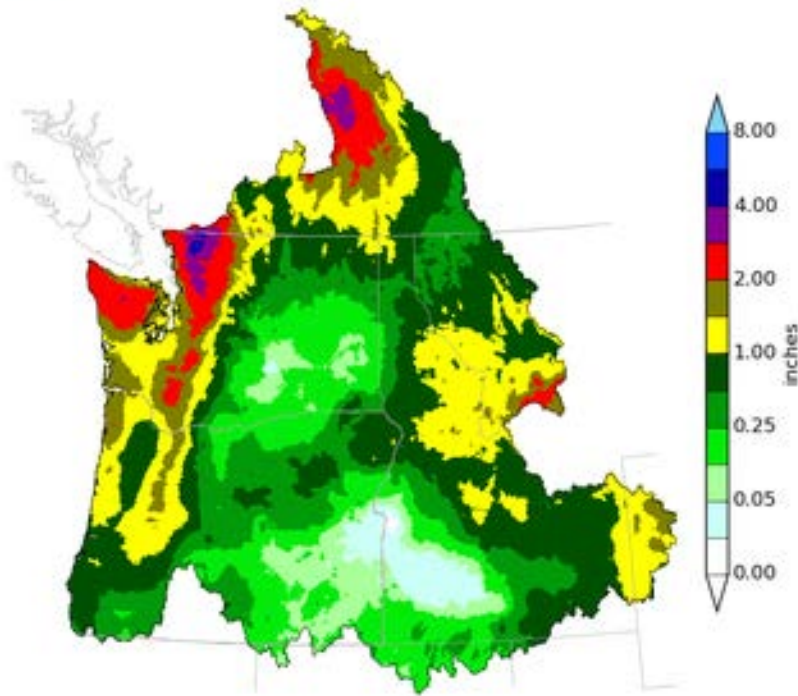




# Mid September Outlook



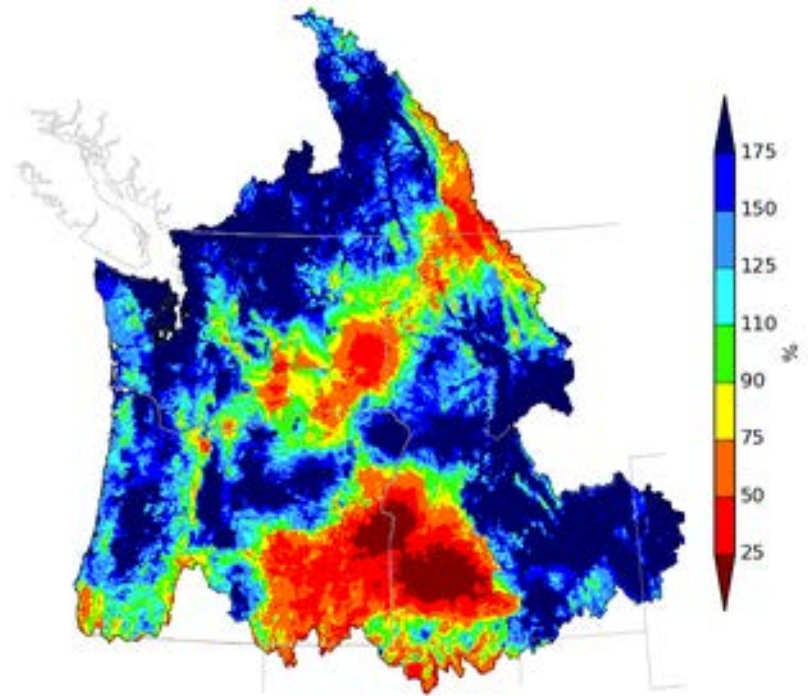
Northwest River Forecast Center  
10 Day QPF, Ending 12Z, 09/20/19



Creation Time: Tue Sep 10 15:38:19 UTC 2019

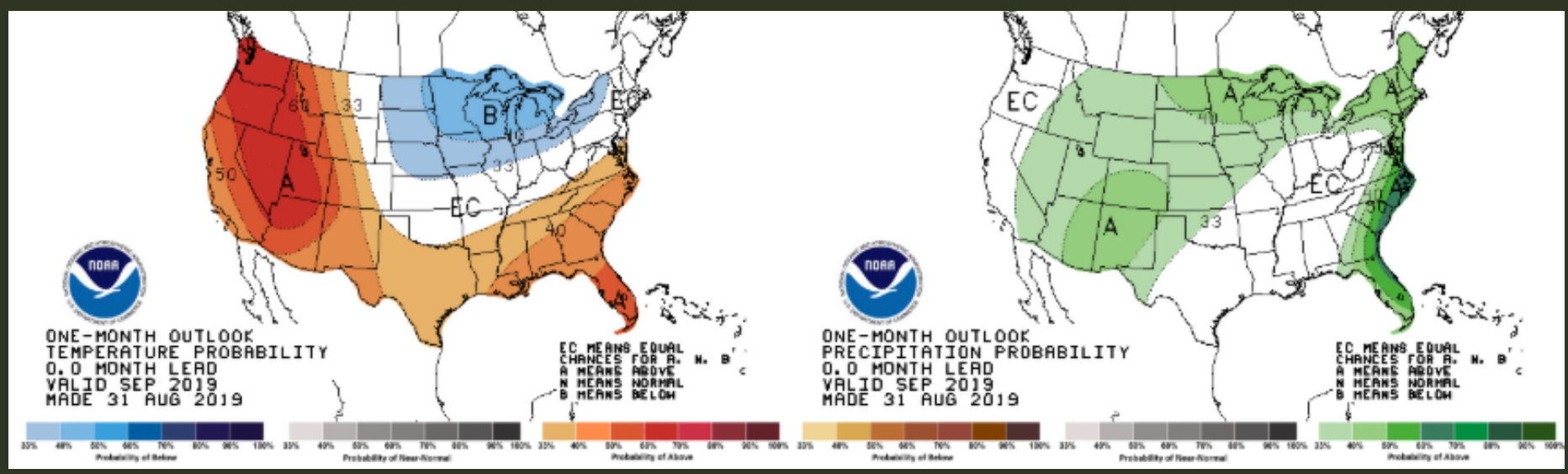


Northwest River Forecast Center  
10 Day QPF (Percent of Climatology), Ending 12Z, 09/20/19



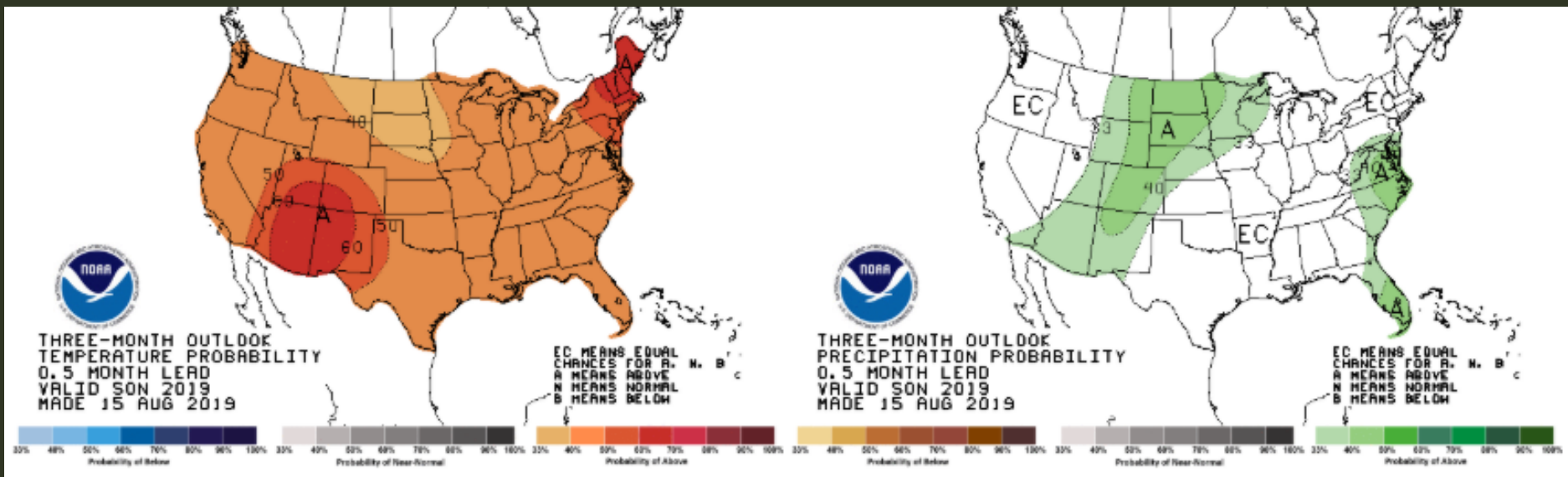
Creation Time: Tue Sep 10 15:39:08 UTC 2019

# September Outlook



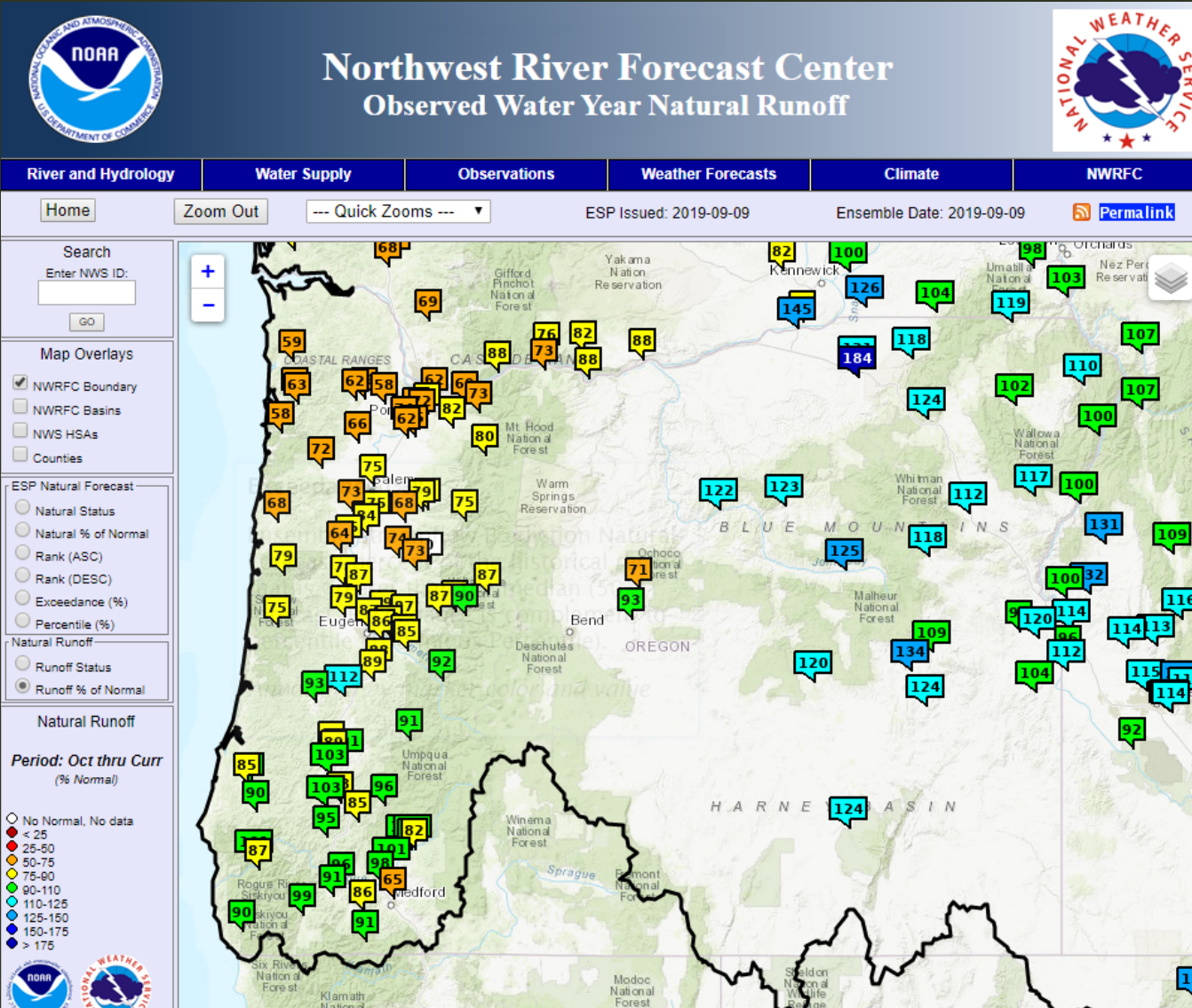


# Sep-Oct-Nov Outlook





# Observed WY19 Runoff thus far



<https://www.nwrfc.noaa.gov/natural/index.html?version=20181015v2>

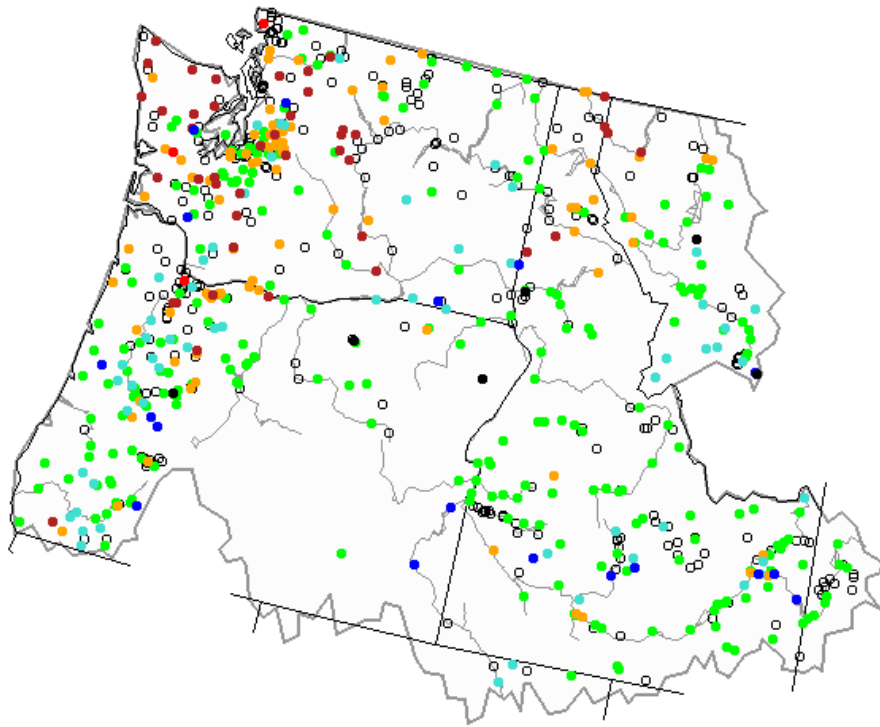
<https://www.cnrfc.noaa.gov/ol.php?product=espWS>

# Oregon Water Supply Availability Meeting

**Sept. 2019**

USGS Update on Surface Water Conditions  
Marc Stewart & Carrie Boudreau  
Oregon Water Science Center  
(photo by: Bill Roberts, USGS gage 14314500)

Monday, September 09, 2019



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

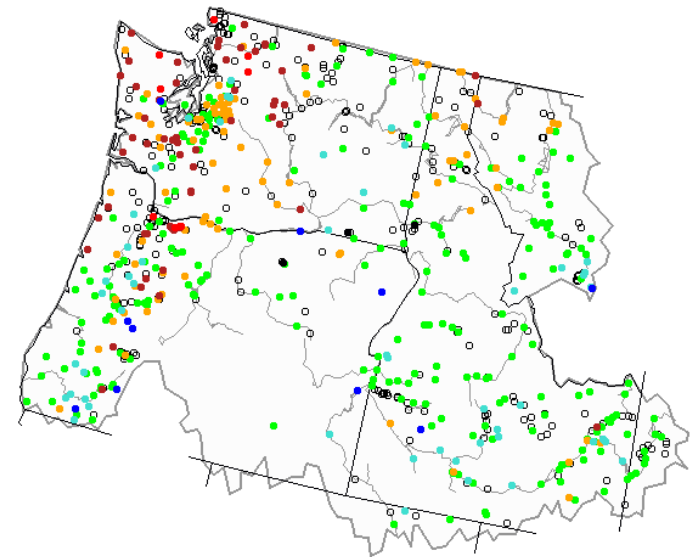
**(Below) Map of 28-day average streamflow compared to historical streamflow for the day of the year (Pacific Northwest)**

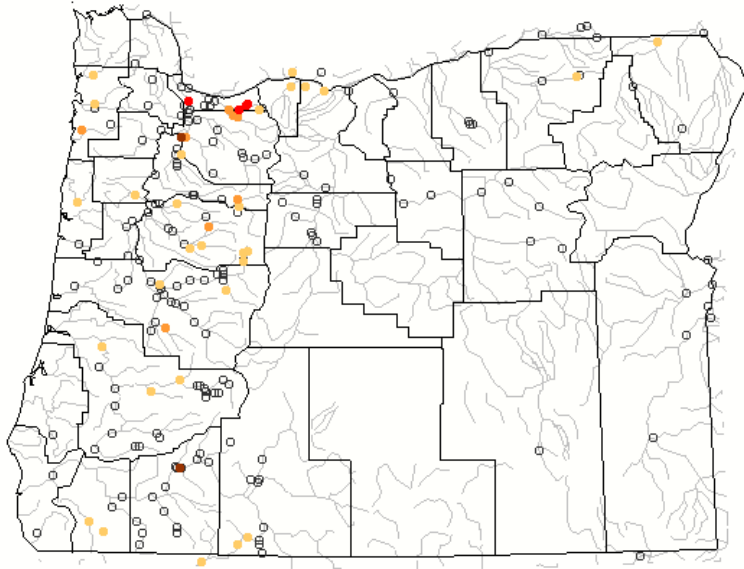


Search USGS streamgage

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

Monday, September 09, 2019





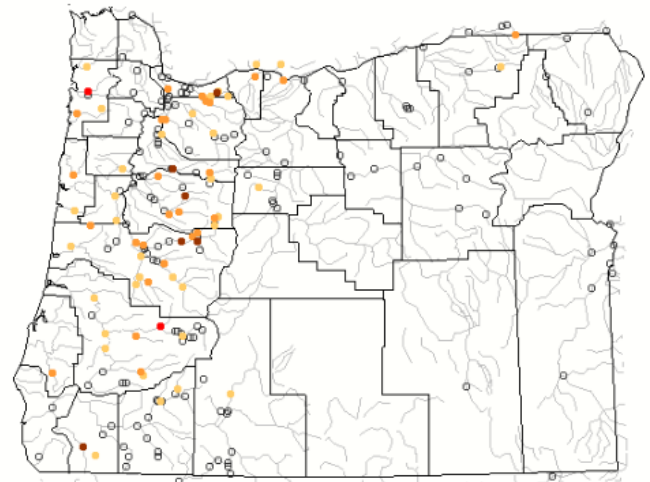
Search USGS streamgage

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



Search USGS streamgage

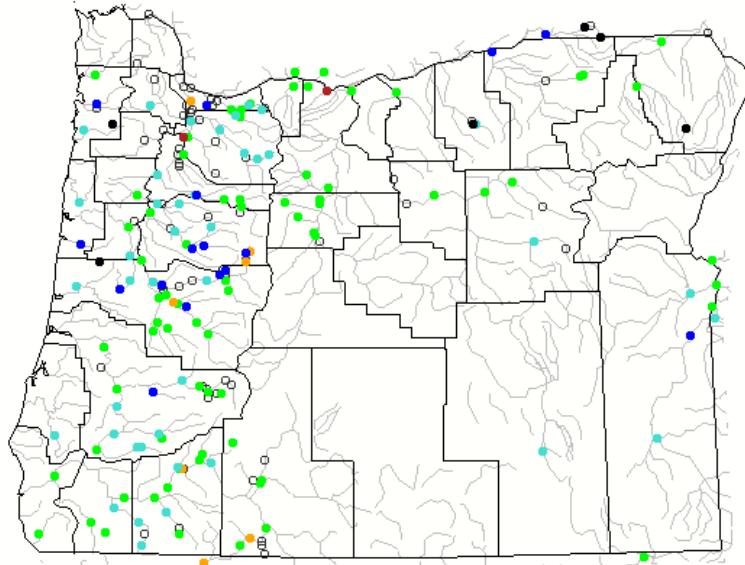
Choose a data retrieval option and select a location on the map

- 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 |            |



Monday, September 09, 2019



## Map of daily streamflow compared to historical streamflow for the day of the year (Oregon)



Search USGS streamgage

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

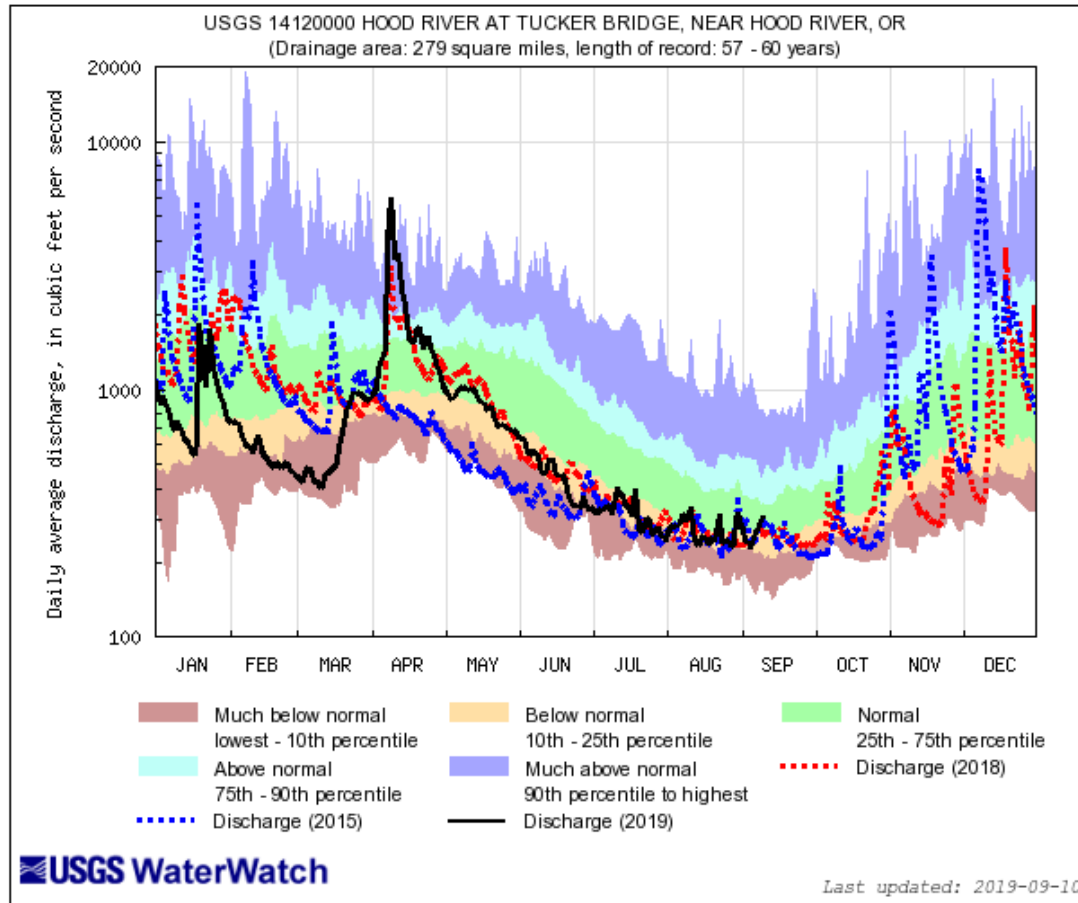
- List of all stations  Single station  Nearest stations  Peak flow

### Explanation - Percentile classes

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

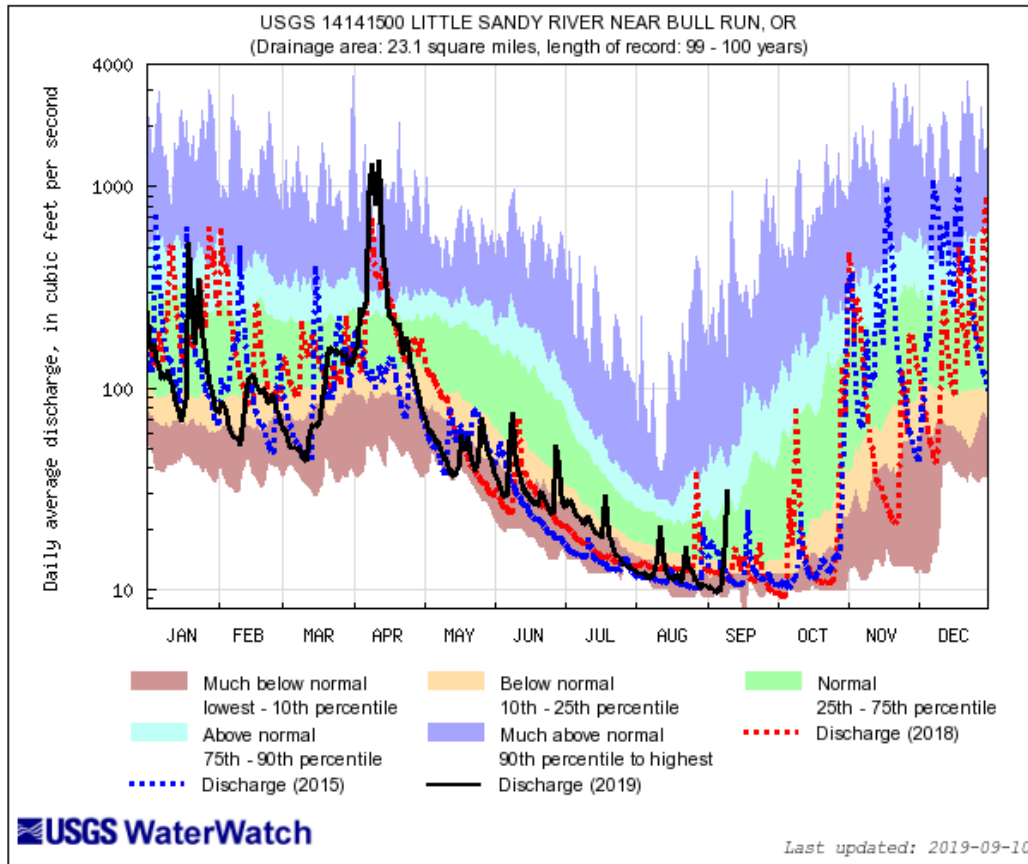


# 14120000 Hood R at Tucker Bridge



| 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       |      |

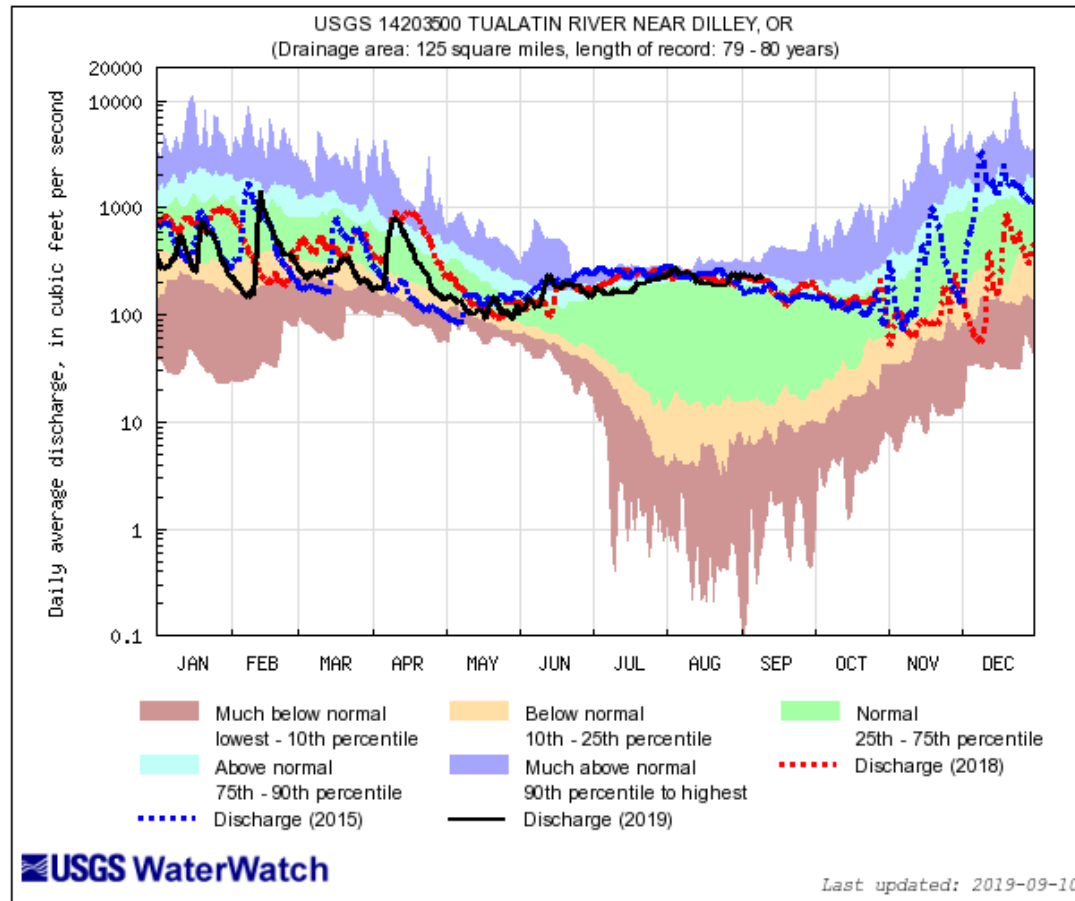
# 14141500 Little Sandy R nr Bull Run



| 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       |      |

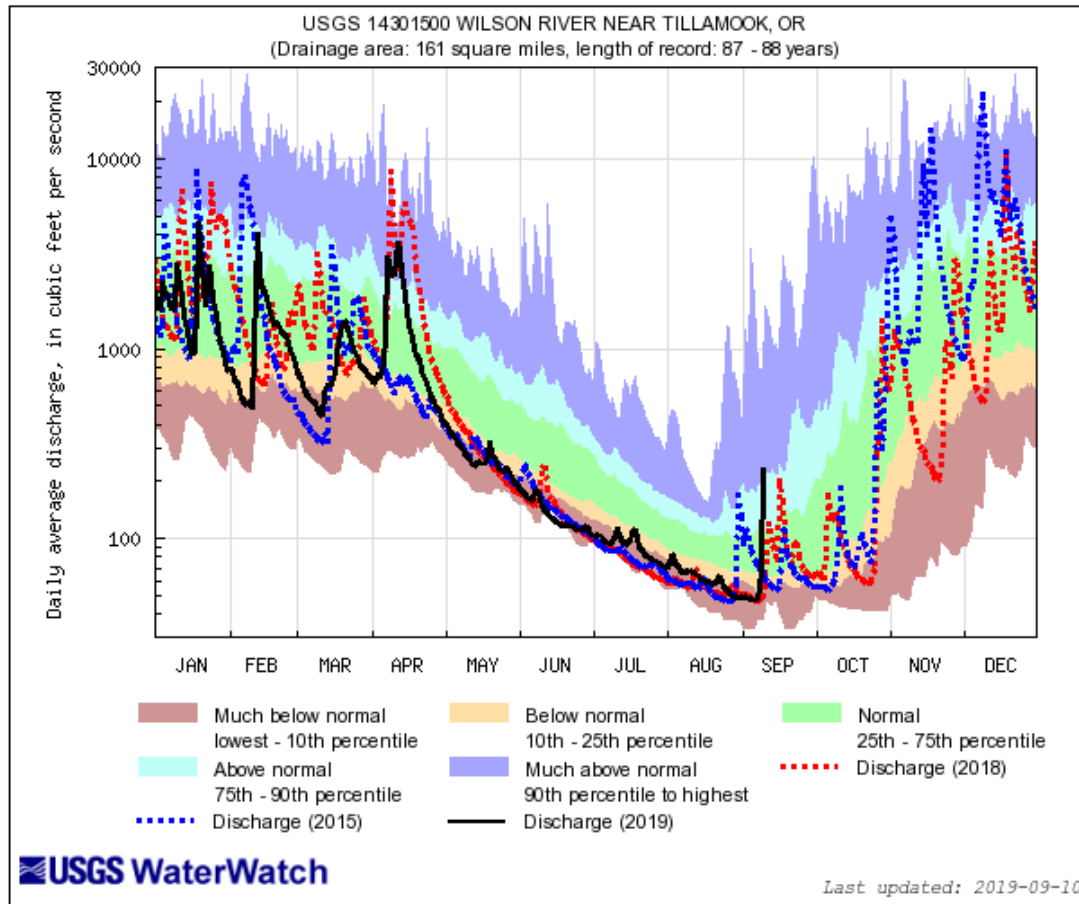


# 14203500 Tualatin R nr Dilley



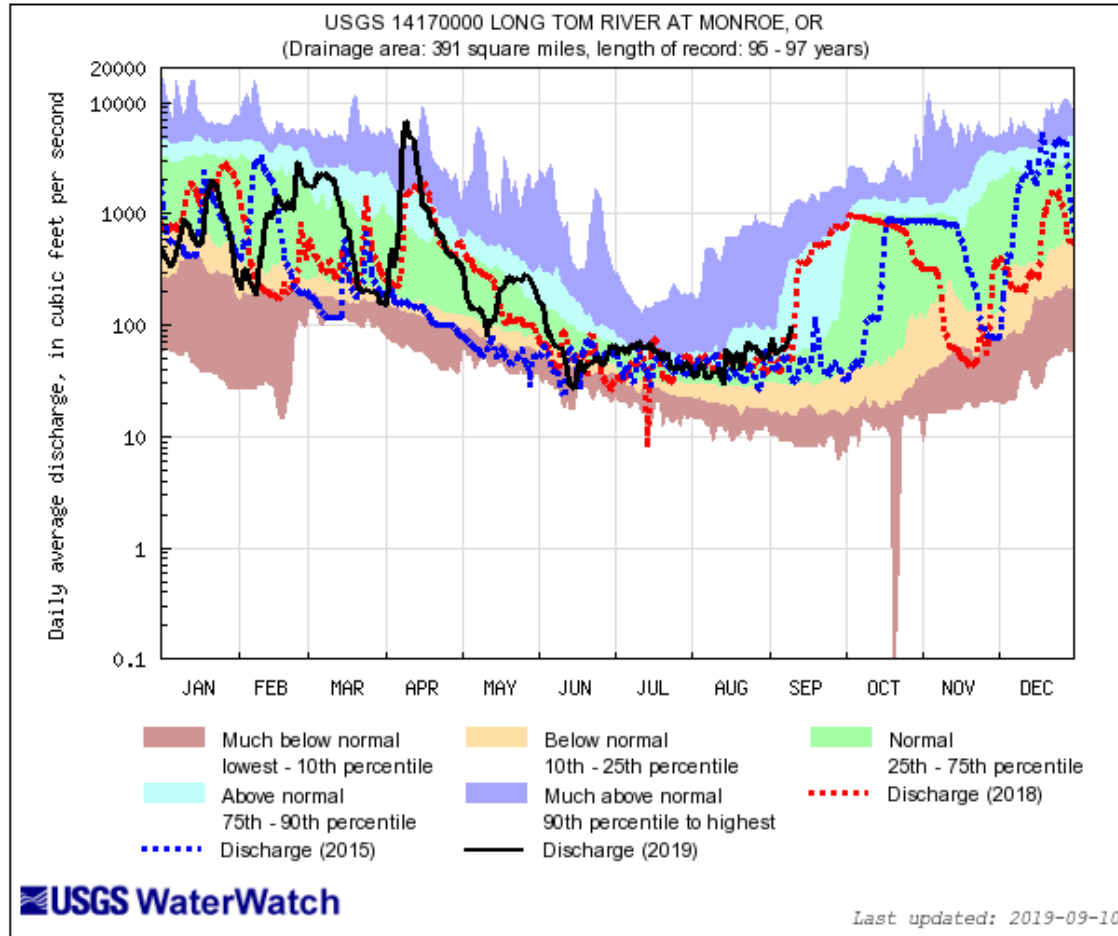
| Explanation - Percentile classes |              |        |              |                         |      |
|----------------------------------|--------------|--------|--------------|-------------------------|------|
| ■                                | ■            | ■      | ■            | ■                       | —    |
| 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



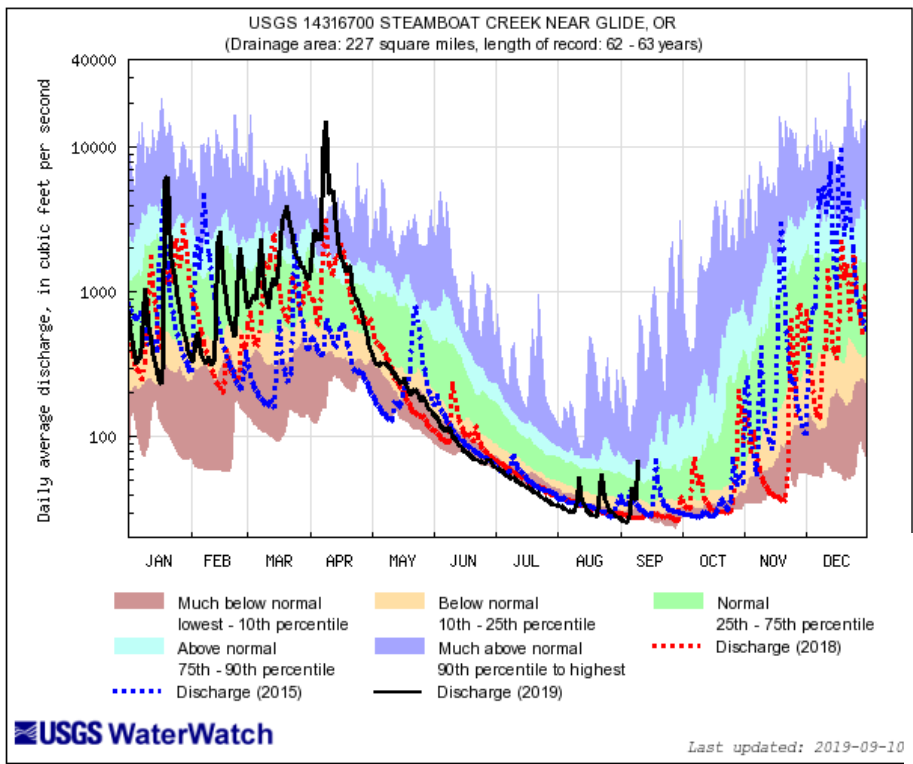
| Explanation - Percentile classes |              |        |              |                         |      |
|----------------------------------|--------------|--------|--------------|-------------------------|------|
| ■                                | ■            | ■      | ■            | ■     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

# 14170000 Long Tom R at Monroe

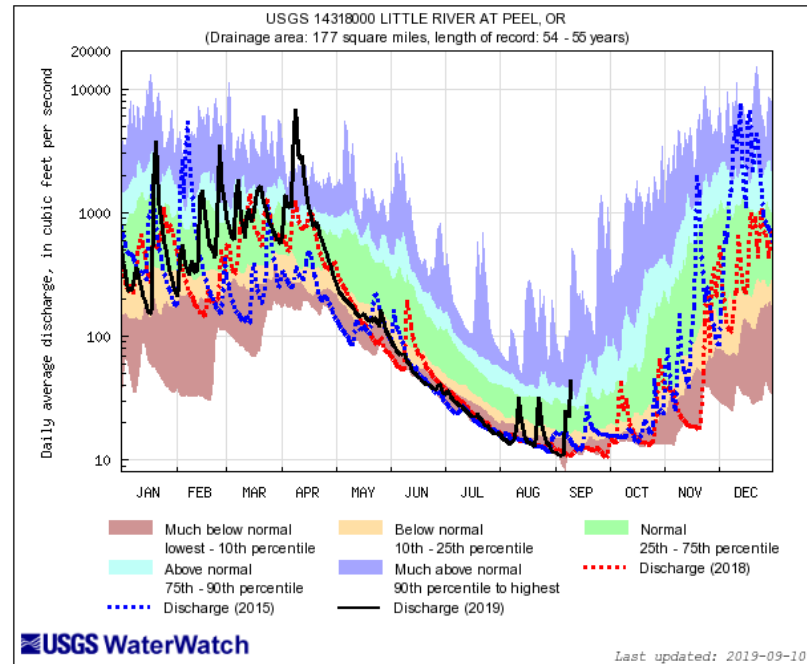


| Explanation - Percentile classes |              |        |              |                         |      |
|----------------------------------|--------------|--------|--------------|-------------------------|------|
|                                  |              |        |              |       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

# 14316700 Steamboat Ck nr Glide



| 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         | —    |

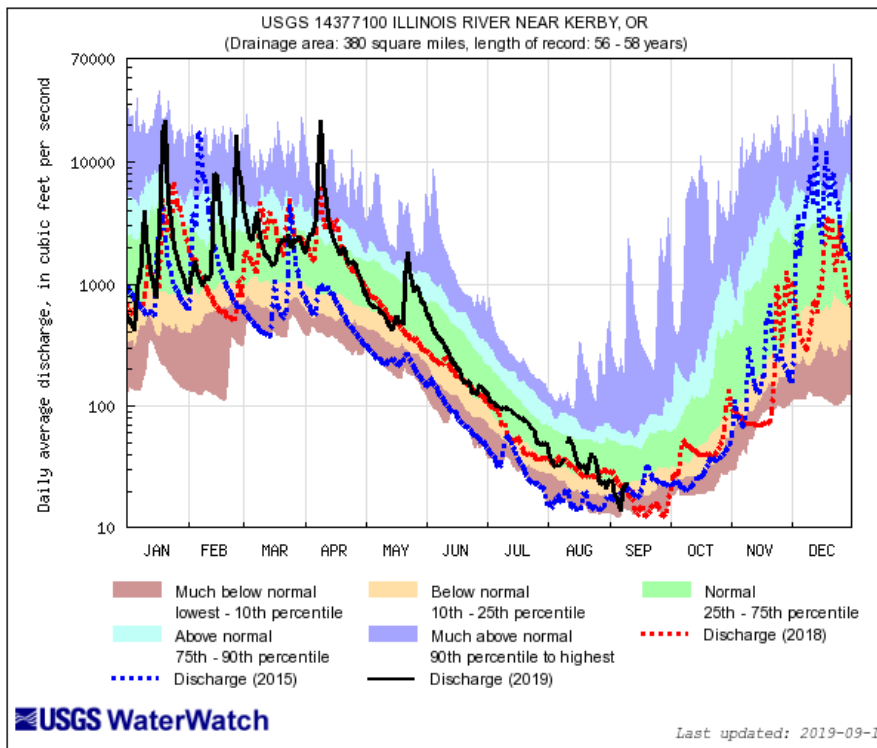


| Explanation - Percentile classes |              |        |              |                           | Flow |
|----------------------------------|--------------|--------|--------------|---------------------------|------|
| lowest-10th percentile           | 10-24        | 25-75  | 76-90        | 90th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

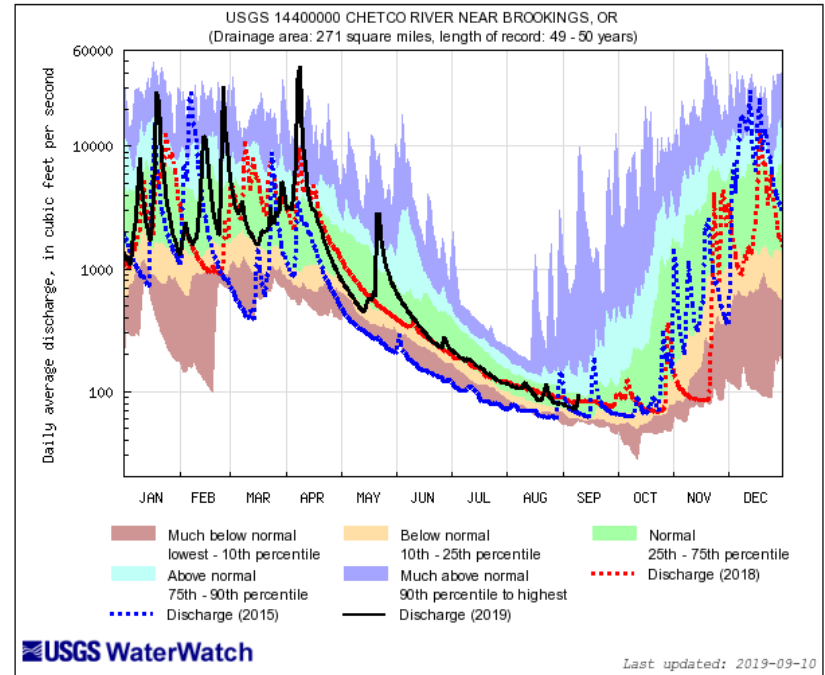
# 14318000 Little R at Peel



# 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       |      |

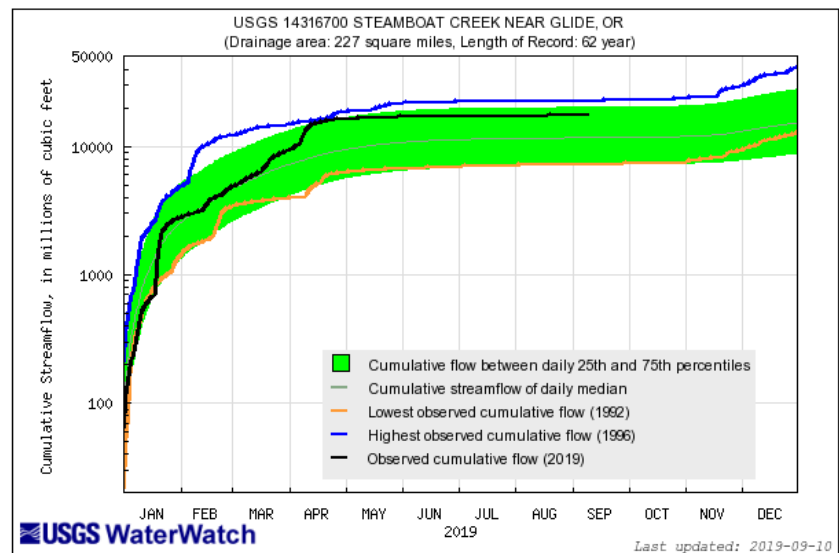
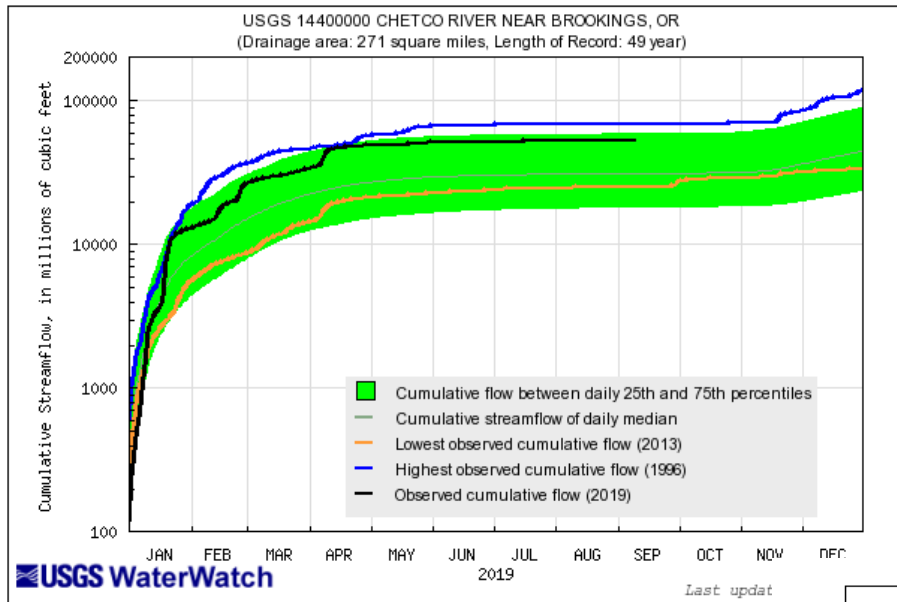


| Explanation - Percentile classes |              |        |              |                         | Flow |
|----------------------------------|--------------|--------|--------------|-------------------------|------|
| lowest-10th percentile           | 10-24        | 25-75  | 76-90        | 90th percentile-highest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

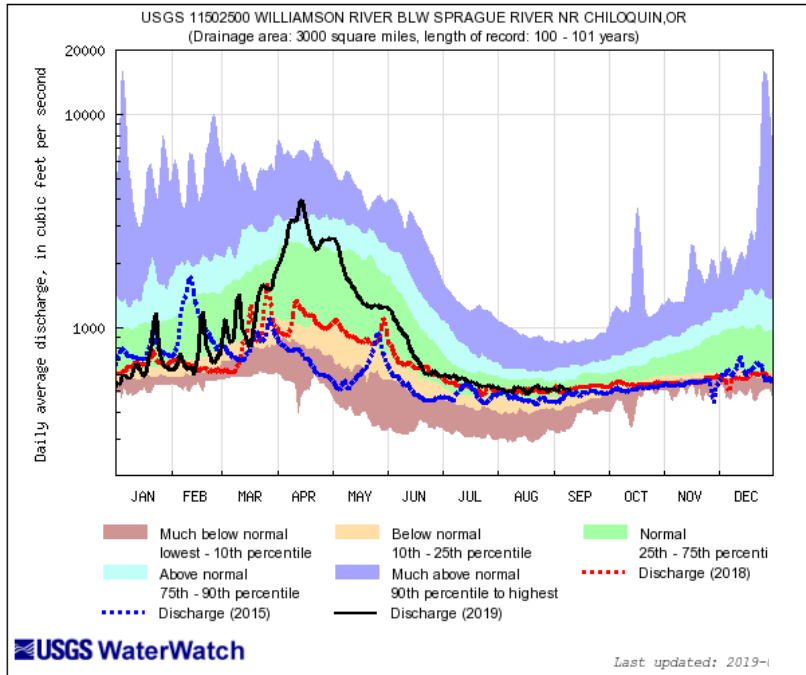
# 14400000 Chetco R nr Brookings



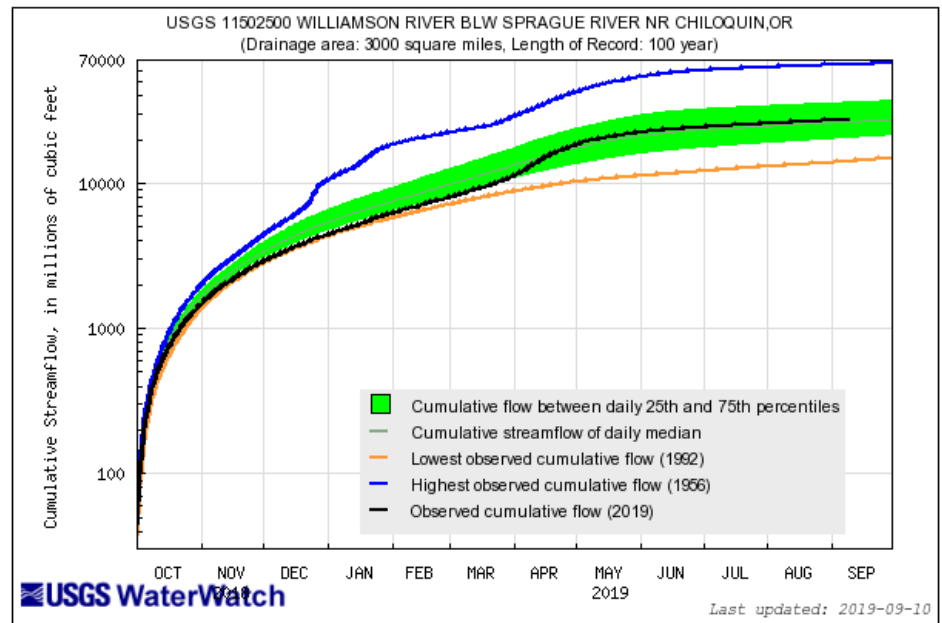
# Cumulative Streamflow for 2019 CY



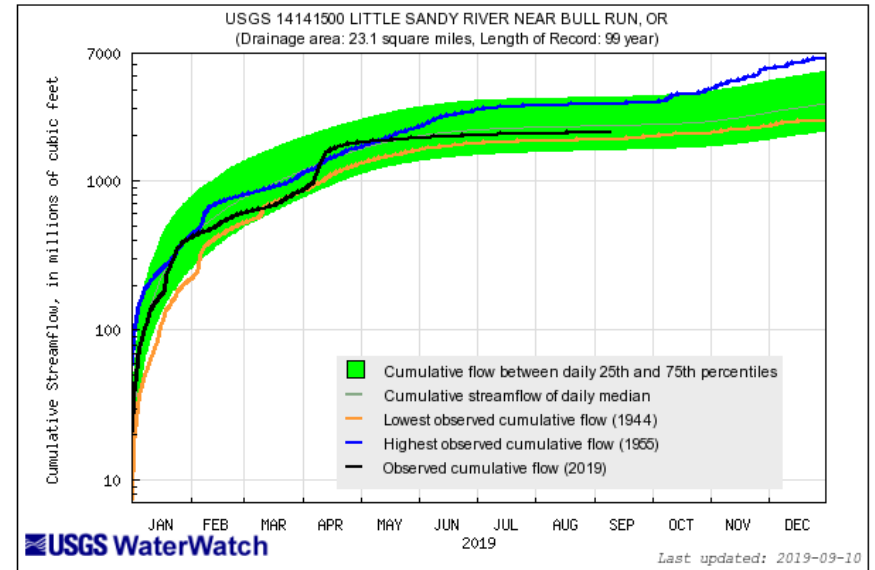
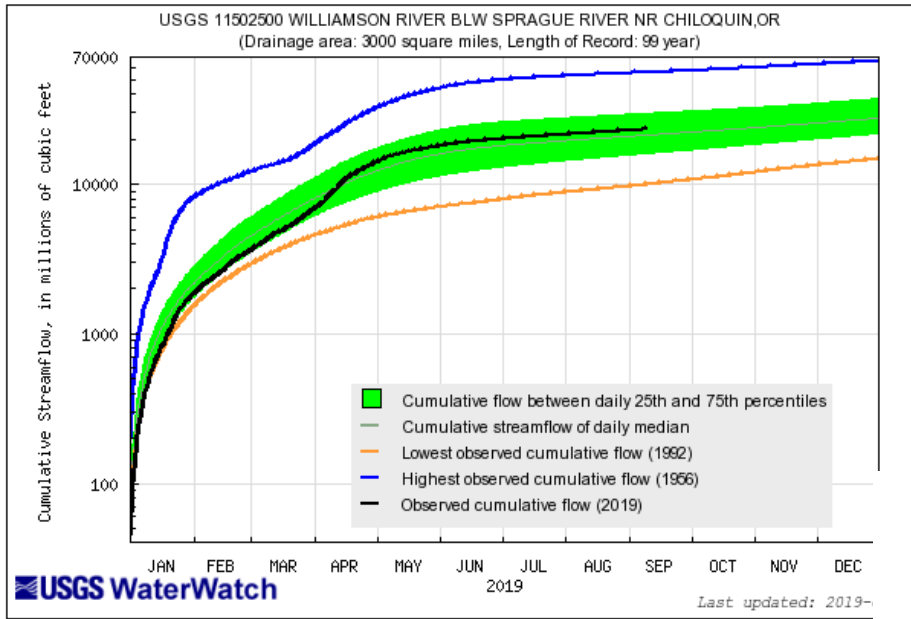
# 11502500 Williamson R blw Sprague R



| 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       |      |



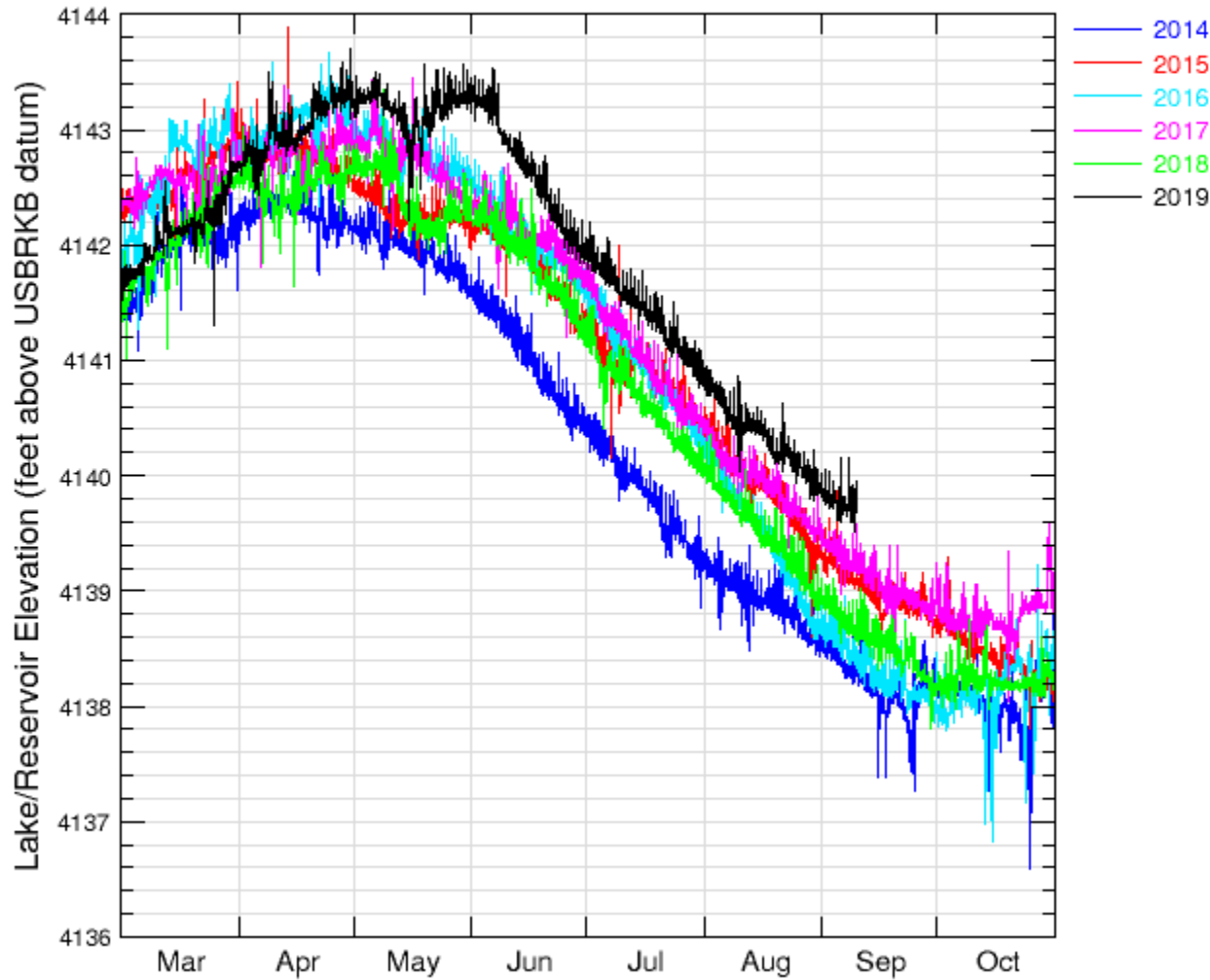
# Cumulative Streamflow for 2019 CY





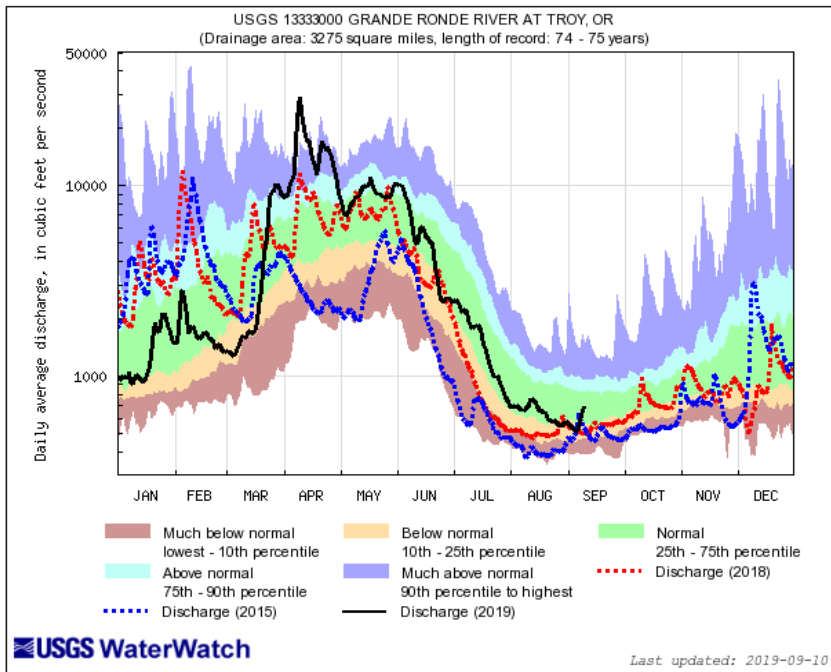
# Upper Klamath Lake near Klamath Falls, OR (11507000)

Data from U.S. Geological Survey



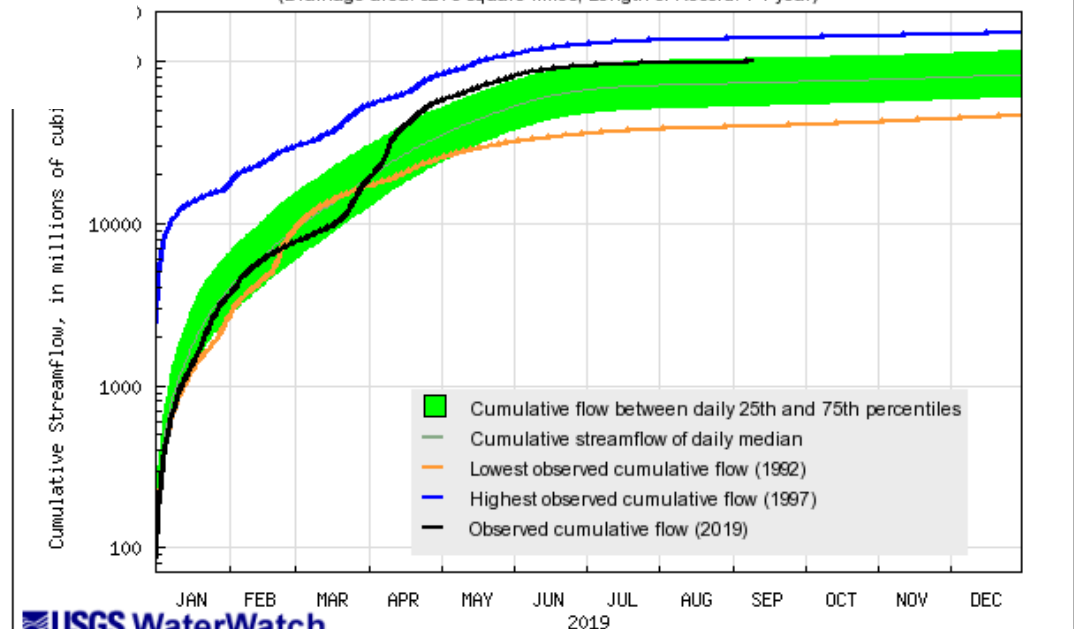
# Grande Ronde

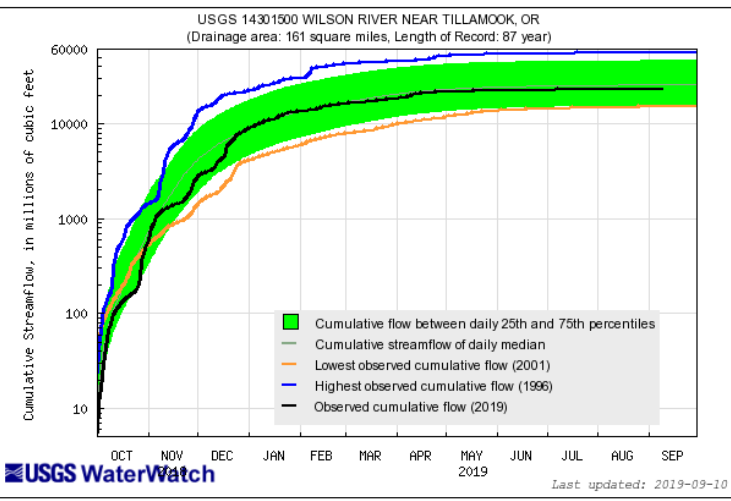
\*\*\*



| 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       |      |

USGS 13333000 GRANDE RONDE RIVER AT TROY, OR  
(Drainage area: 3275 square miles, Length of Record: 74 year)

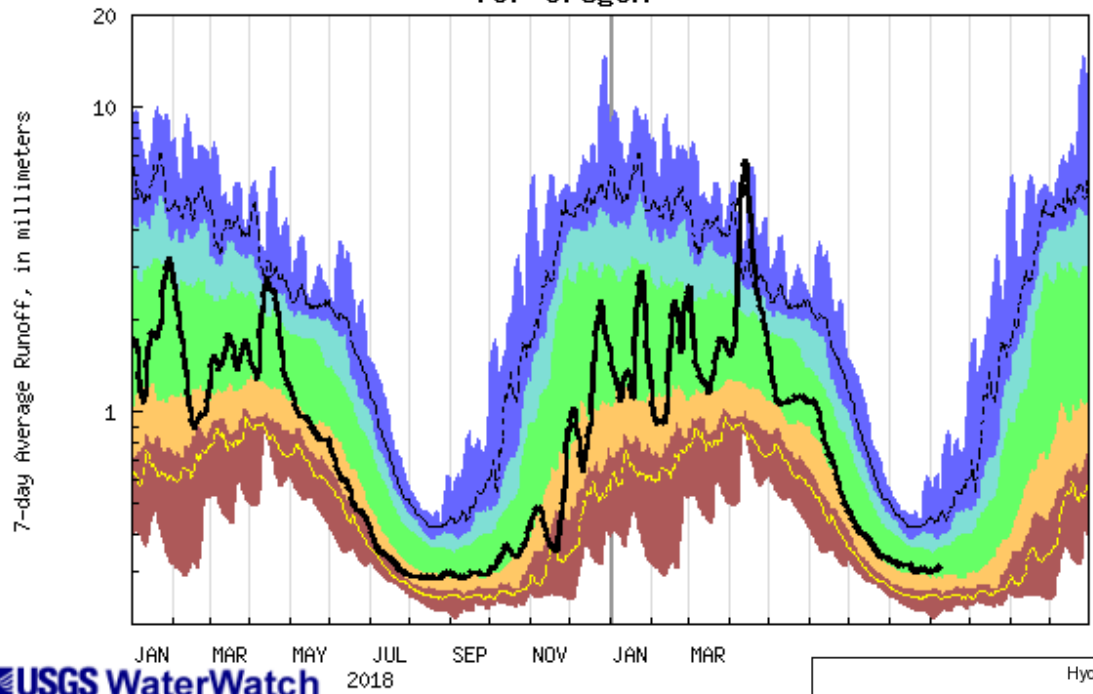




| Station                             | NRCS SWSI Basin           | Monthly mean discharge |                    | Change in discharge from previous month (percent) | Accumulated Runoff For the Period Oct. to Aug. Percent of average |
|-------------------------------------|---------------------------|------------------------|--------------------|---|---|
|                                     |                           | Cubic feet per second  | Percent of average |   |   |
| Donner Und Blitzen nr Frenchglen    | Harney                    | 53                     | 104                | -53   | 124   |
| (*)Deep Creek above Adel            | Lake County               | 15                     | 107                | -44   | 137   |
| (*)Chewaucan River near Paisley     | Lake County               | 26                     | 81                 | -50   | 119   |
| Williamson River near Chiloquin     | Klamath                   | 513                    | 111                | -8  | 91  |
| Owyhee River near Rome              | Owyhee                    | 177                    | 119                | -57   | 111   |
| (*)NF Malheur River near Beulah     | Malheur                   | 49                     | 104                | -26   | 126   |
| Grande Ronde R at Troy              | Grande Ronde Powder/Burnt | 644                    | 86                 | -58   | 120   |
| Umatilla River nr Gibbon            | Umatilla Lower John Day   | 42                     | 93                 | 5   | 119   |
| John Day River at Service Crk       | Upper John Day            | 162                    | 82                 | -65   | 124   |
| (*)Little Deschutes River nr LaPine | Upper Deschutes           | 120                    | 76                 | 8   | 77  |
| Hood River nr Hood River            | Lower Deschutes Mt.Hood   | 269                    | 79                 | -15   | 73  |
| Willamette River at Salem           | Willamette                | 7,304                  | 104                | 4   | 81  |
| Wilson River near Tillamook         | North Coast               | 64                     | 65                 | -30   | 67  |
| Umpqua River near Elkton            | Rogue/Umpqua              | 995                    | 85                 | -15   | 93  |
| Rogue River near Agness             | Rogue/Umpqua              | 2,276                  | 98                 | 2   | 101   |
| SF Coquille River at Powers         | South Coast               | 34                     | 97                 | -19   | 96  |
| Chetco River near Brookings         | South Coast               | 99                     | 86                 | -38   | 90  |



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



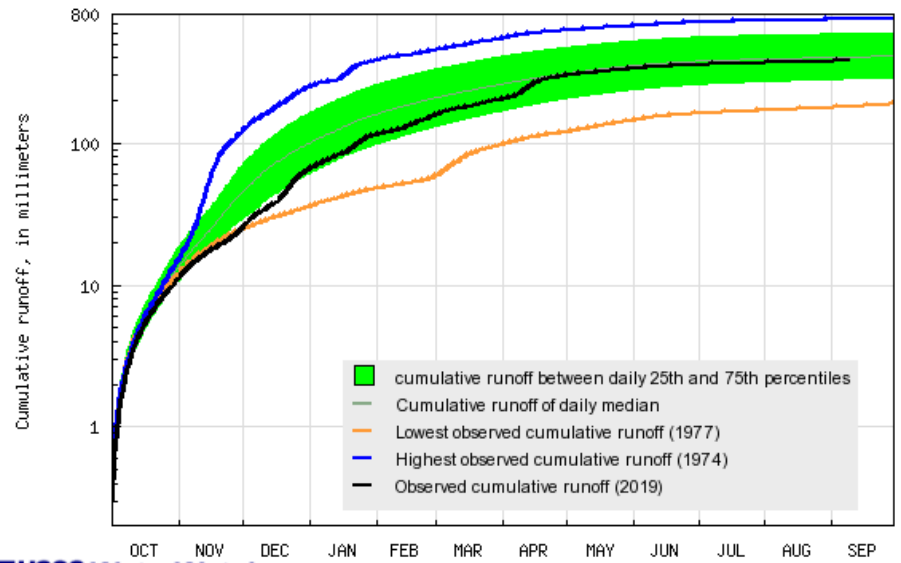
USGS WaterWatch

2018

#### Explanation - Percentile classes

|                        |              |        |              |                   |    |
|------------------------|--------------|--------|--------------|-------------------|----|
| lowest-10th percentile | 5            | 10-24  | 25-75        | 76-90             | 95 |
| Much below Normal      | Below normal | Normal | Above normal | Much above normal |    |

### Hydrograph of cumulative 7-day average runoff for Oregon



USGS WaterWatch

2019

Last updated: 2019-09-10



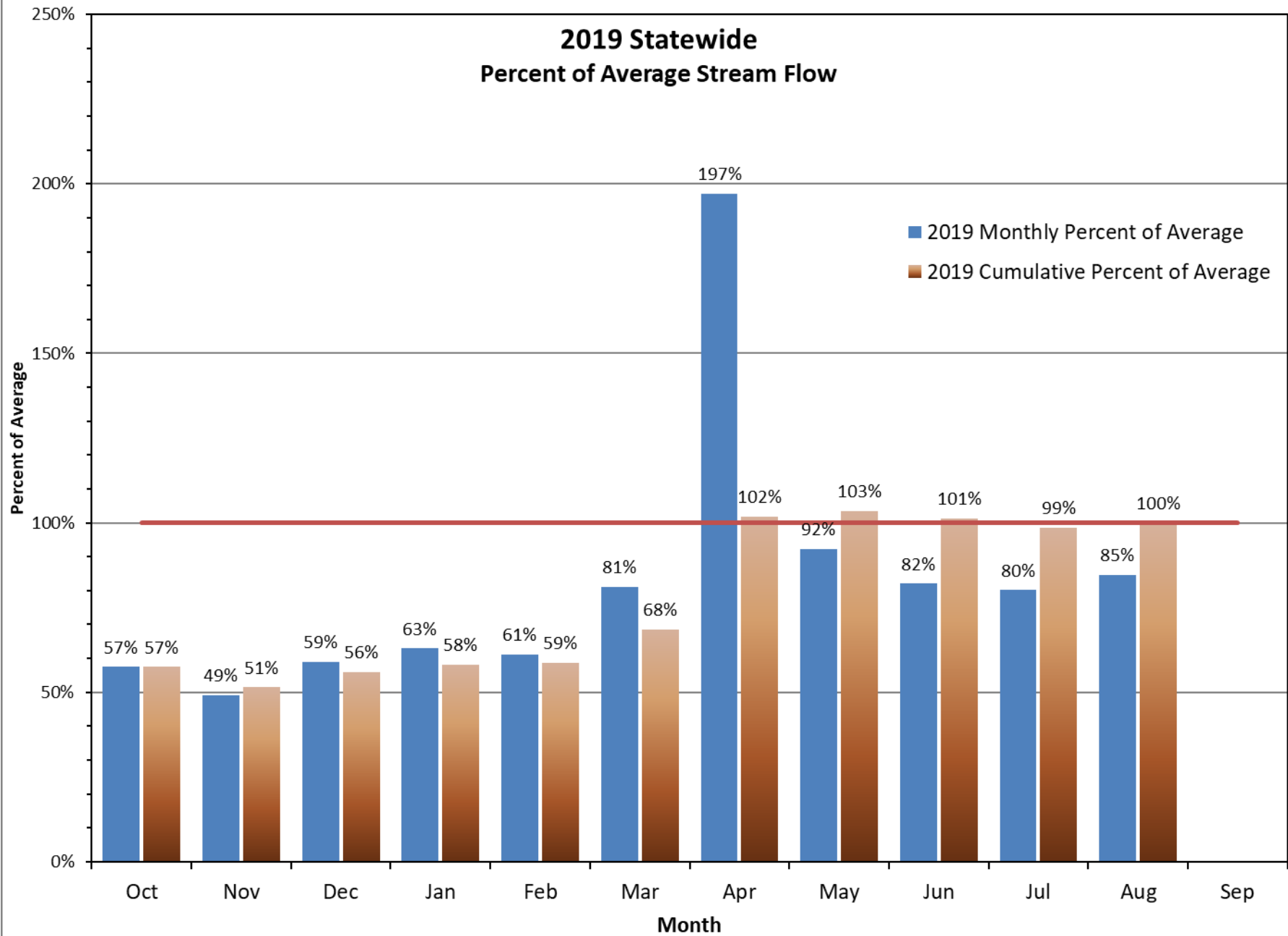
Water Supply Conditions Report

# Water Supply Availability Committee



Ken Stahr  
Oregon Water Resources  
Department  
September 10, 2019

## 2019 Statewide Percent of Average Stream Flow

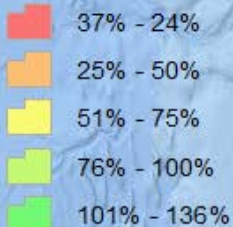




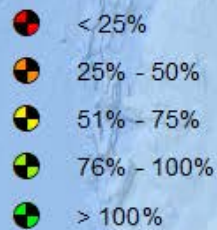
| <b>Basin</b>     | <b>Water Year<br/>percent of<br/>average thru<br/>August</b> | <b>Percent of<br/>average for<br/>month of<br/>August</b> | <b>% of average<br/>for<br/>09/01/2019</b> | <b>Number<br/>of data<br/>points</b> |
|------------------|--|---|--|--------------------------------------|
| <b>West Side</b> | <b>79%</b>   | <b>74%</b>  | <b>63%</b>                                 | <b>42</b>                            |
| <b>East Side</b> | <b>113%</b>  | <b>91%</b>  | <b>81%</b>                                 | <b>48</b>                            |
| <b>State</b>     | <b>100%</b>  | <b>85%</b>  | <b>74%</b>                                 | <b>90</b>                            |

# Percent of Average Streamflow July, 2019

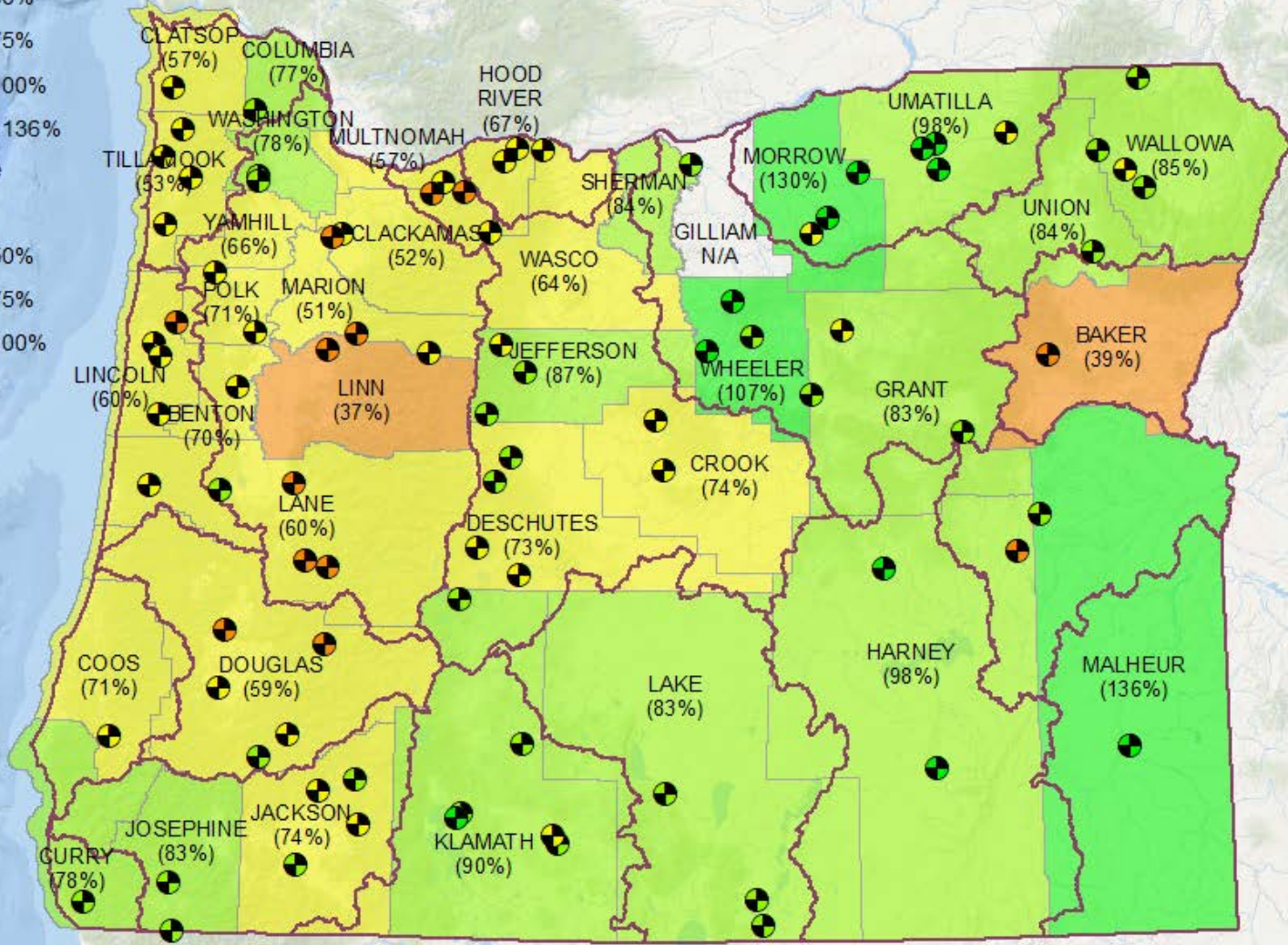
## County



## Stream Gage



## WRD Basin

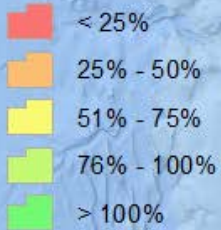


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

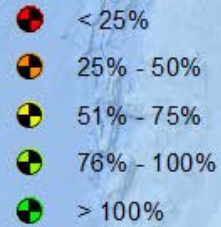


# Percent of Average Streamflow August, 2019

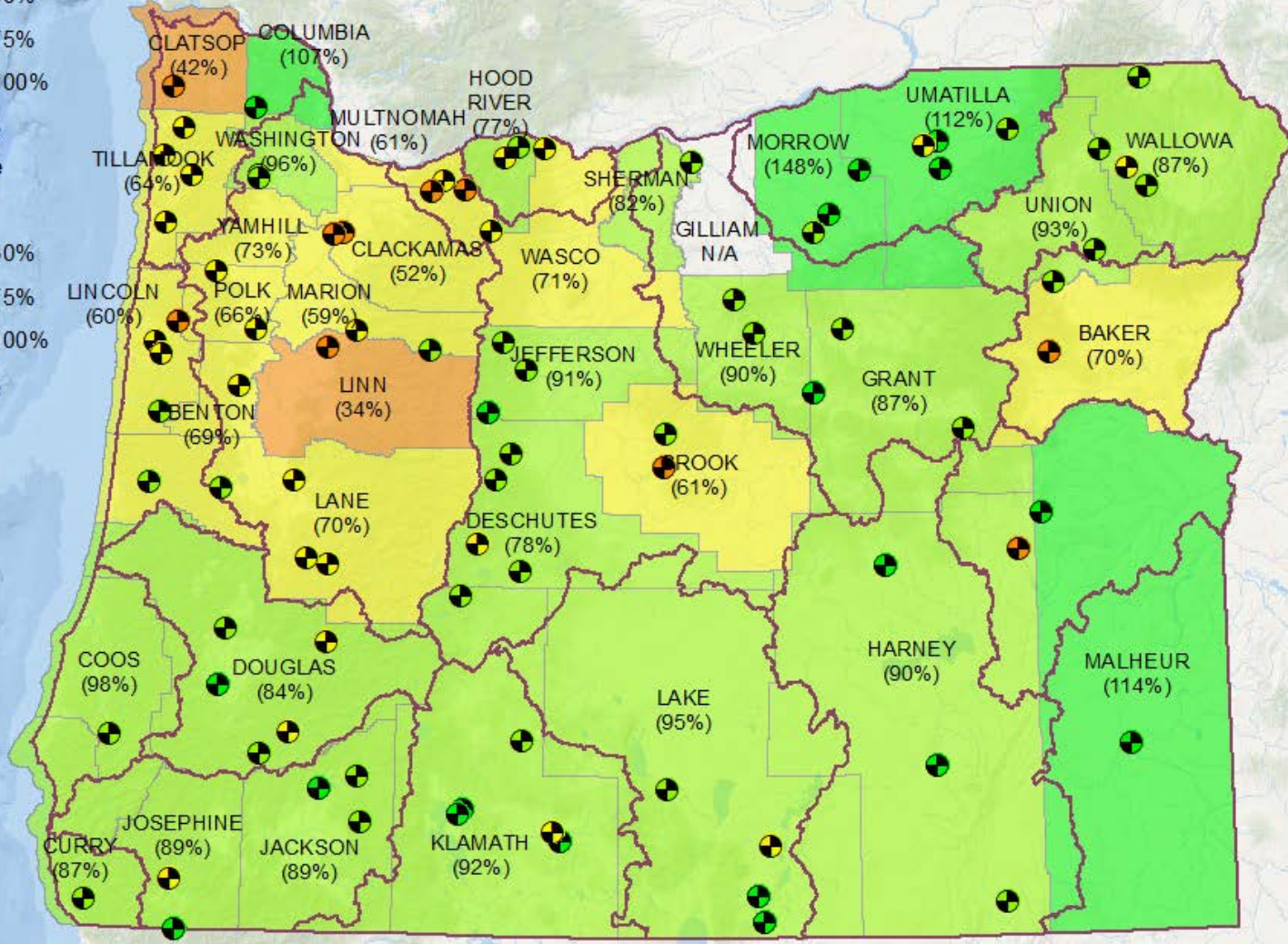
## County



## Stream Gage

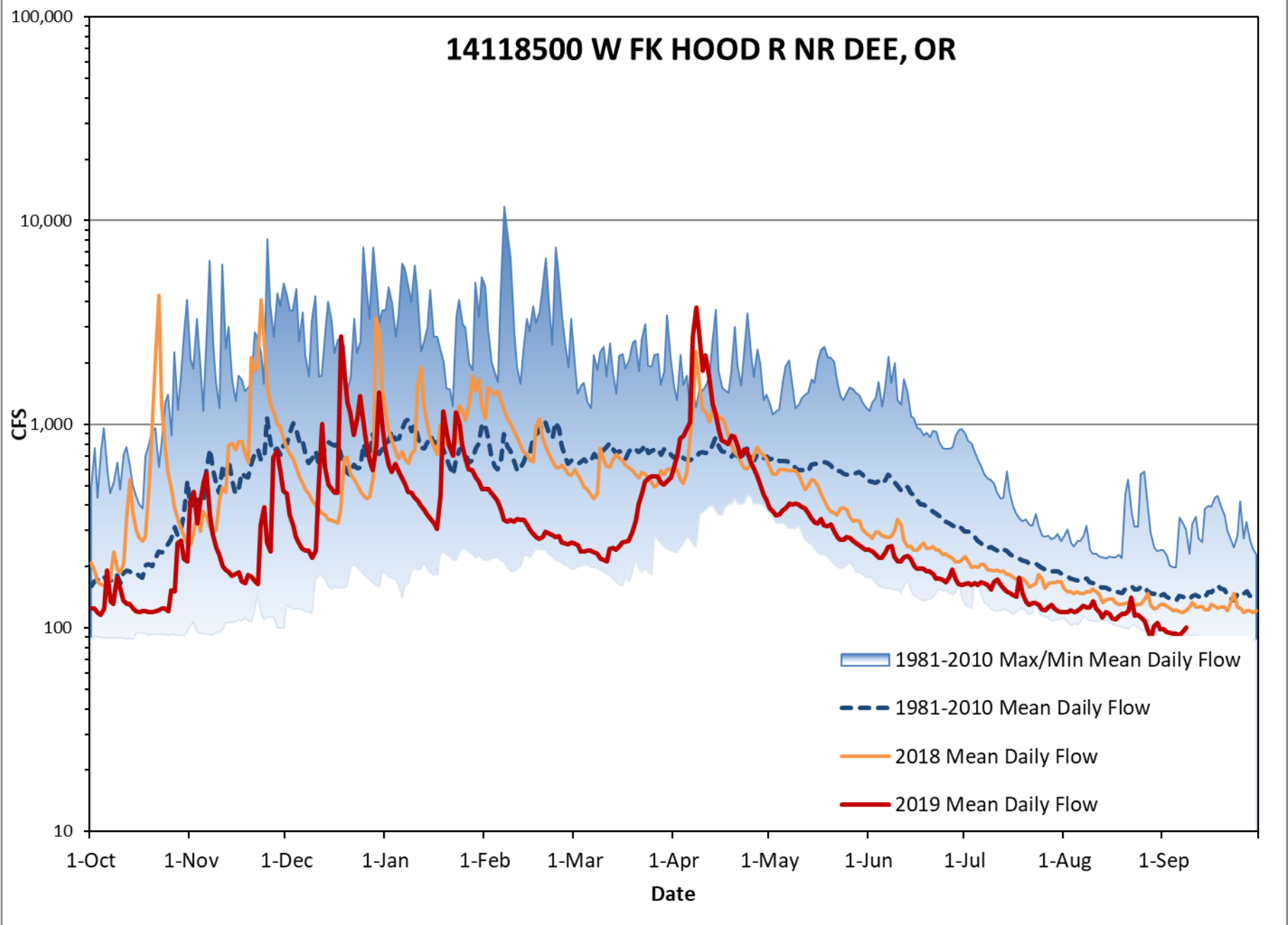


## WRD Basin

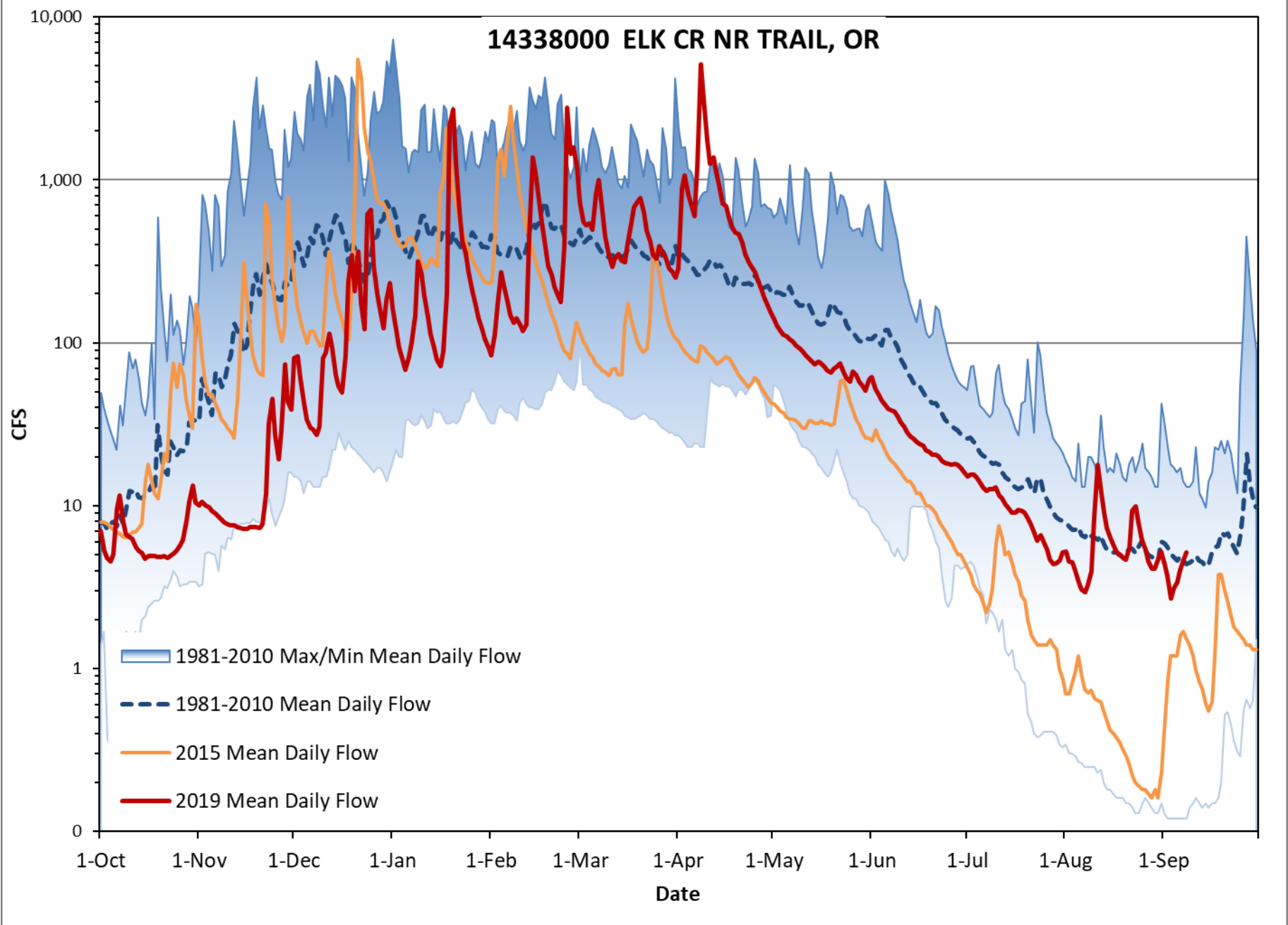


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

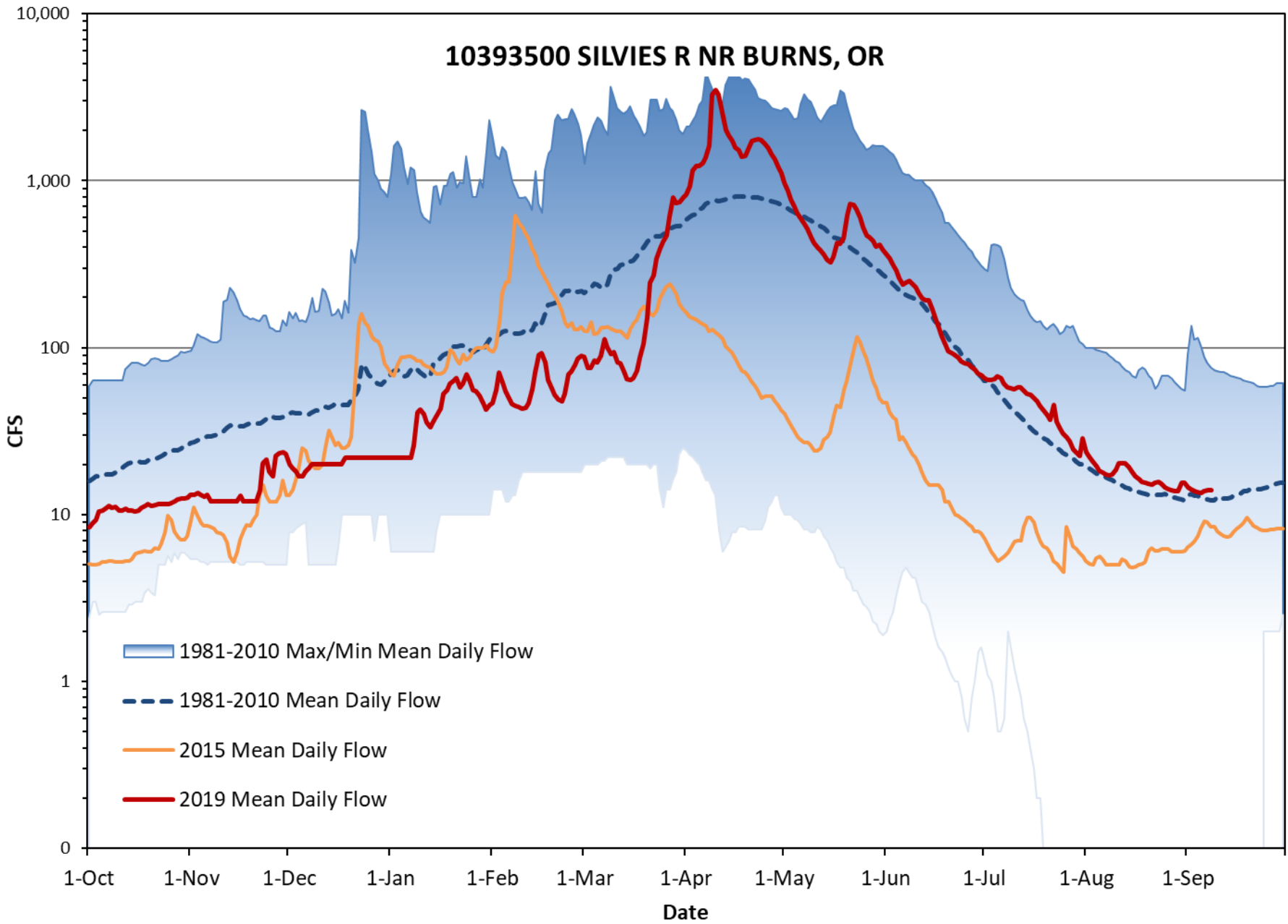
# 14118500 W FK HOOD R NR DEE, OR



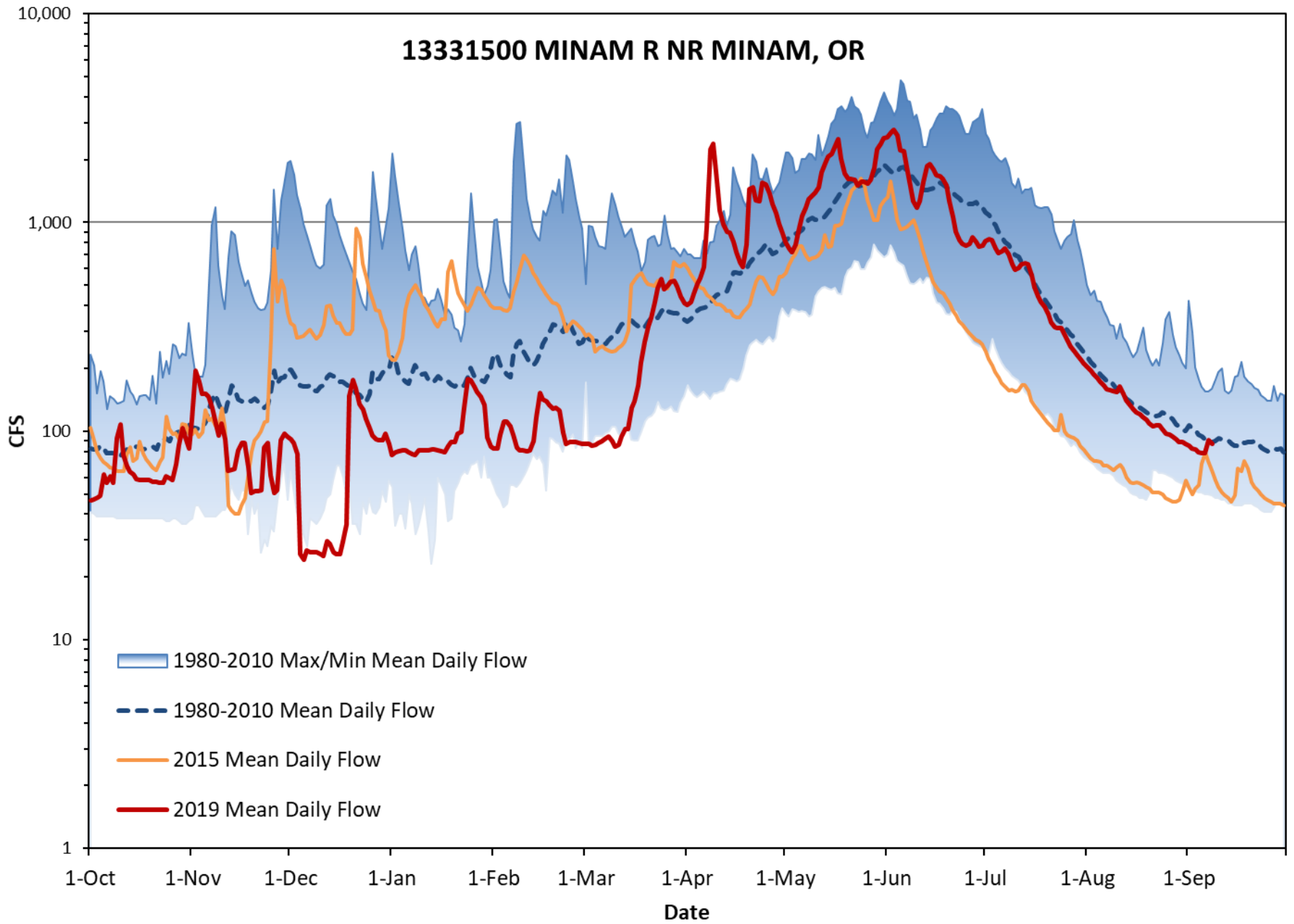
# 14338000 ELK CR NR TRAIL, OR



# 10393500 SILVIES R NR BURNS, OR



# 13331500 MINAM R NR MINAM, OR



OREGON



WATER RESOURCES  
DEPARTMENT

**Thank you**