

Summer Rim SNOTEL  
Klamath Basin  
Post \_ Watson Fire  
October 2018

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

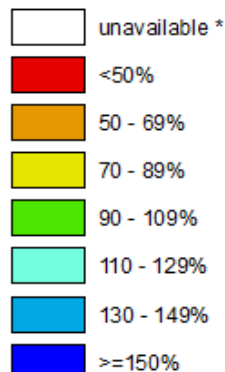
# Statewide SNOTEL Precipitation is 101% of normal

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

Nov 05, 2018

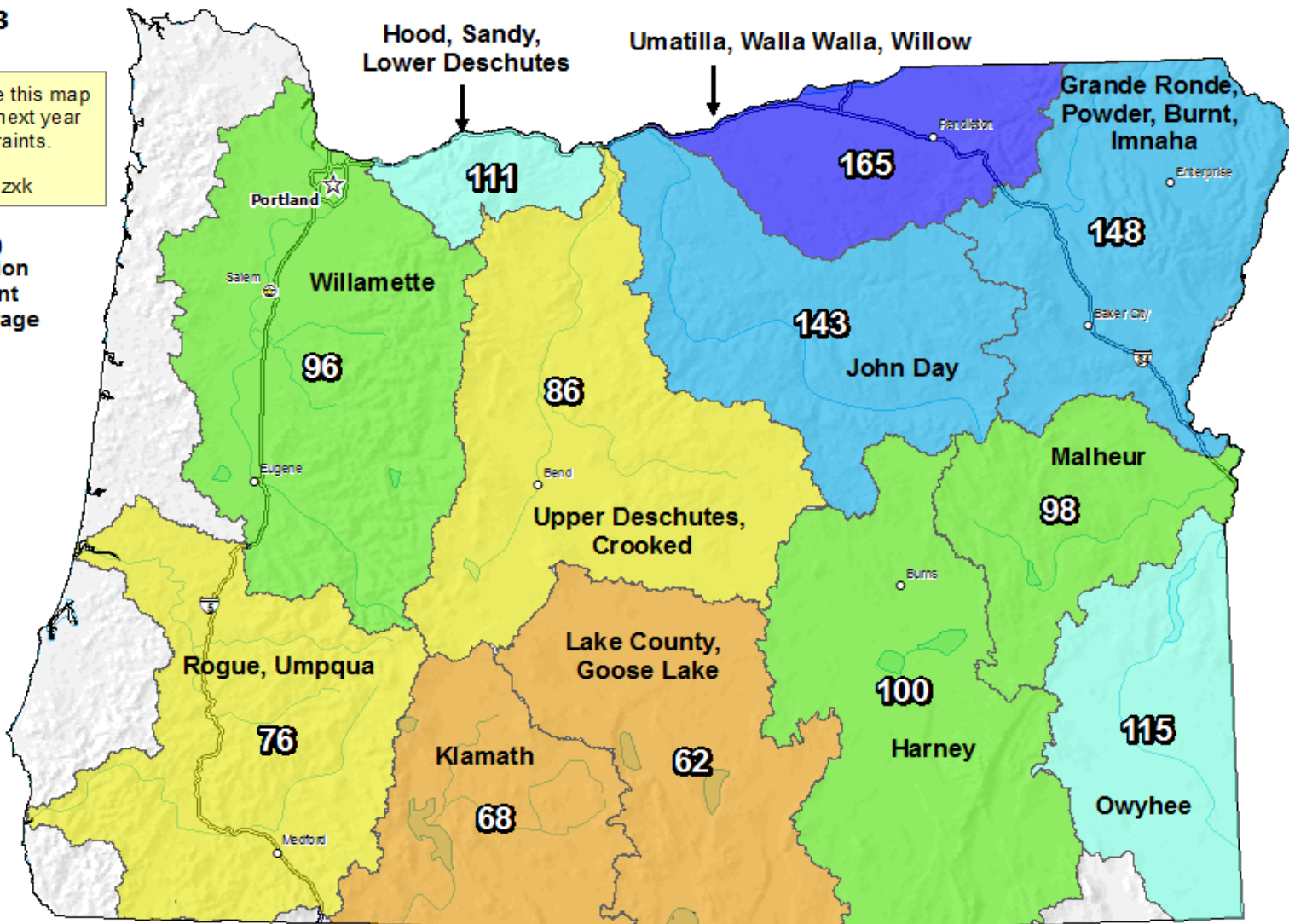
Notice: We anticipate this map will not be available next year due to staffing constraints. Alternate maps: <https://go.usa.gov/xnzxk>

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).



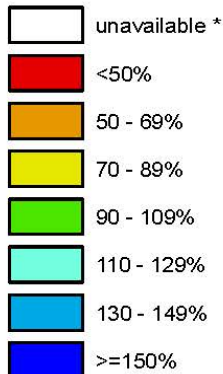
Prepared by:  
USDA/NRCS National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# Statewide SNOTEL Precipitation was 91% of normal

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

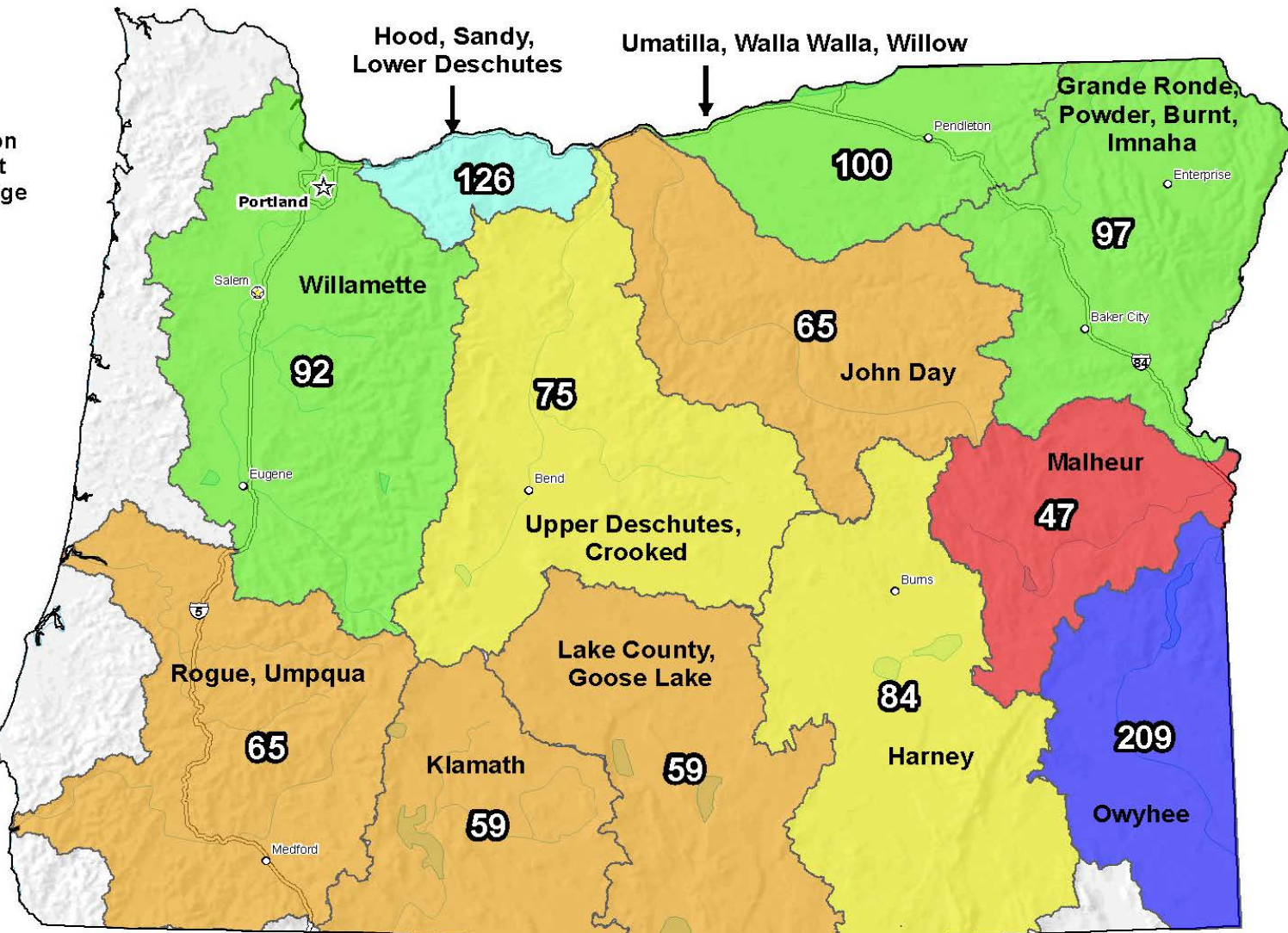
Nov 06, 2015

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

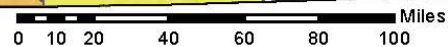


\* Data unavailable at time of posting or measurement is not representative at this time of year

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).

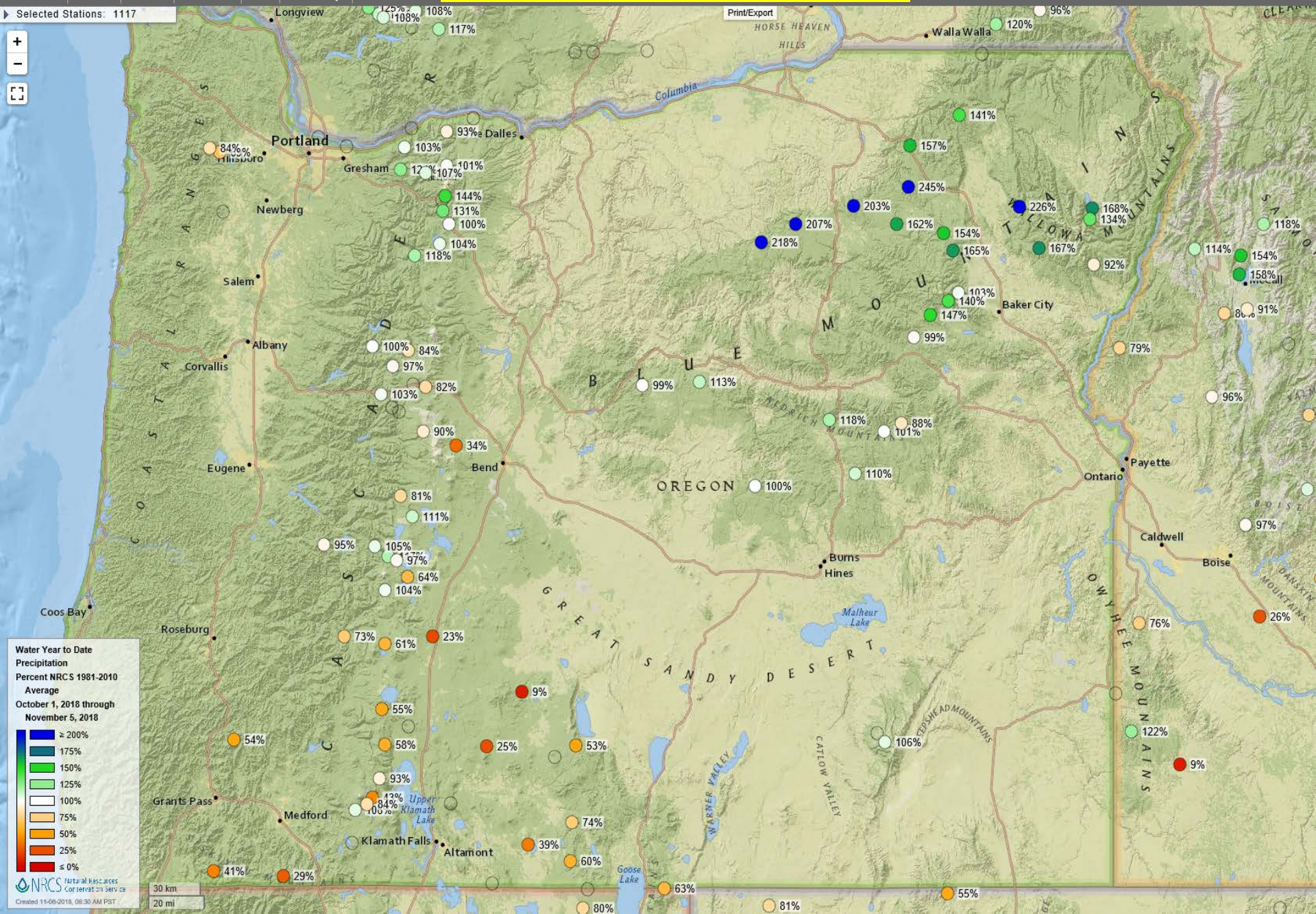


Prepared by:  
USDA/NRCS National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# SNOTEL Precipitation

## October 1, 2018 – November 6, 2018

Selected Stations: 1117



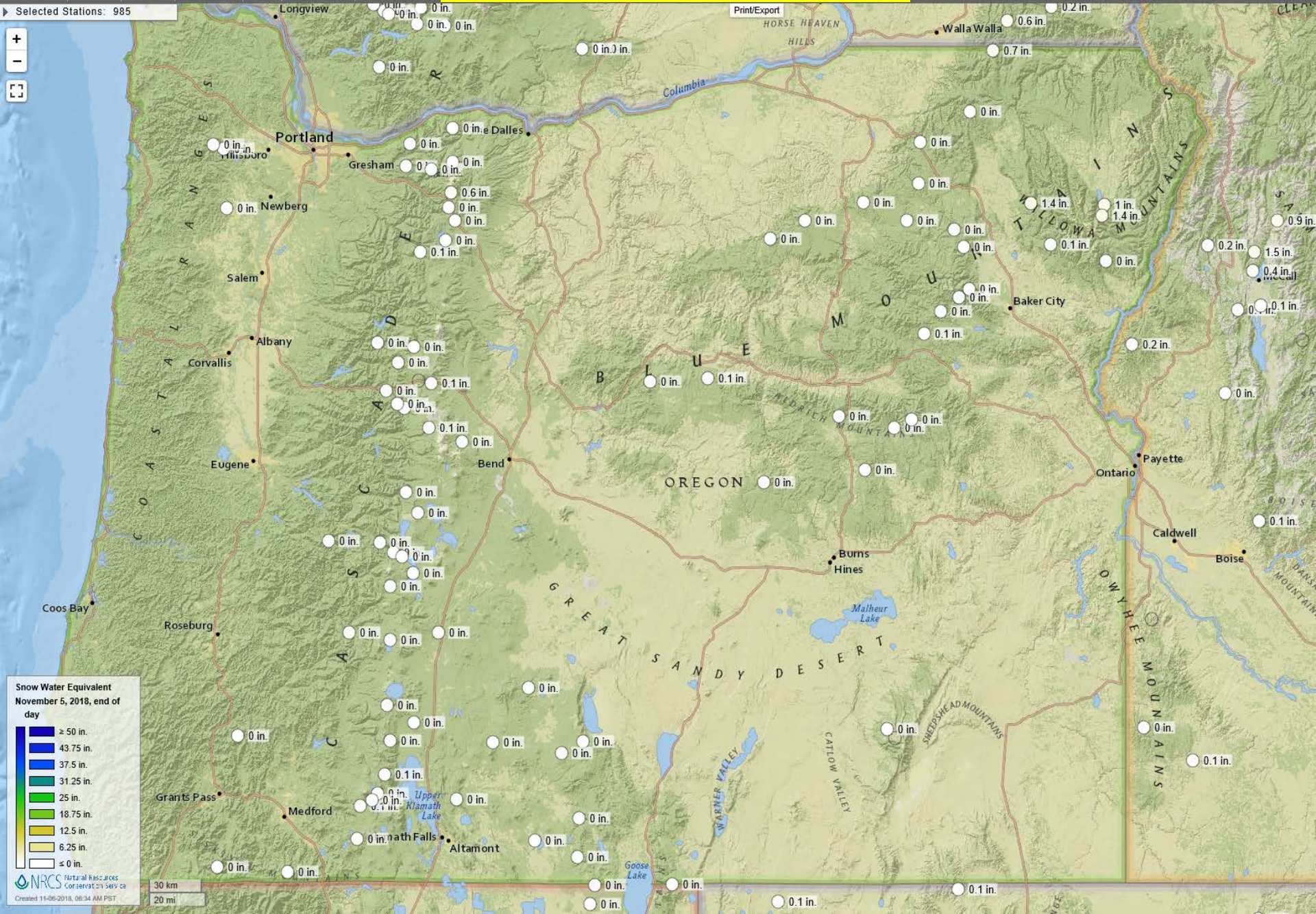
**Water Year to Date Precipitation**  
 Percent NRCS 1981-2010 Average  
 October 1, 2018 through November 5, 2018

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

NRCS Natural Resources Conservation Service  
 Created 11-06-2018, 08:30 AM PST

30 km  
 20 mi

# SNOTEL Snow Water Equivalent November 6, 2018



**Snow Water Equivalent**  
 November 5, 2018, end of day

Dark Blue	≥ 50 in.
Blue	43.75 in.
Light Blue	37.5 in.
Teal	31.25 in.
Green	25 in.
Light Green	18.75 in.
Yellow-Green	12.5 in.
Yellow	6.25 in.
White	≤ 0 in.

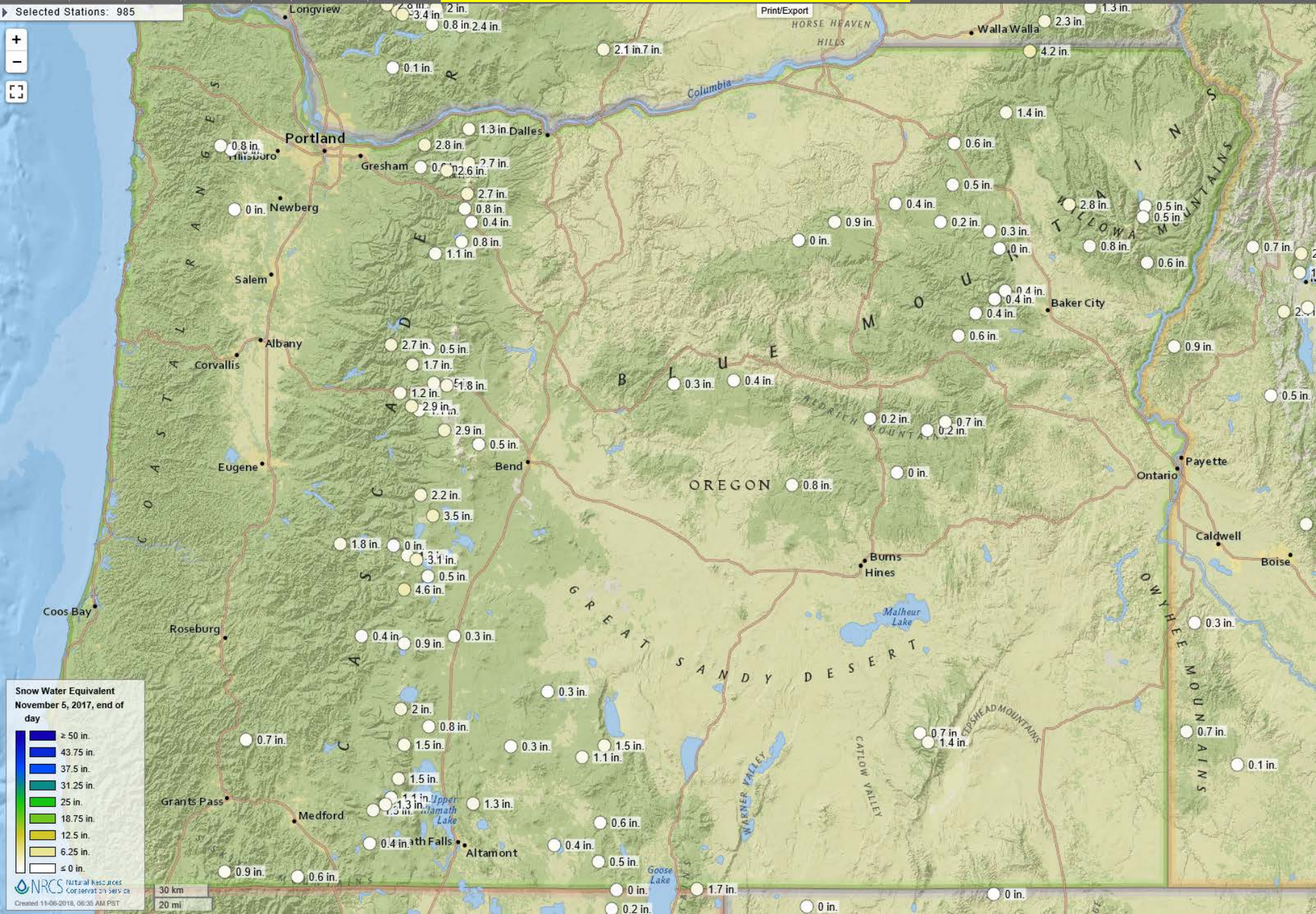
Scale: 30 km / 20 mi

Created 11-06-2018, 08:34 AM PST

Print/Export

# SNOTEL Snow Water Equivalent November 6, 2017

Selected Stations: 985



**Snow Water Equivalent**  
 November 5, 2017, end of day

Dark Blue	≥ 50 in.
Blue	43.75 in.
Light Blue	37.5 in.
Teal	31.25 in.
Green	25 in.
Light Green	18.75 in.
Yellow-Green	12.5 in.
Yellow	6.25 in.
White	≤ 0 in.

30 km  
 20 mi

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Klamath Basin  
Post \_ Watson Fire  
October 2018

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503-414-3271  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/>

# Thank you

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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

*November 6, 2018*  
*National Weather Service Update*

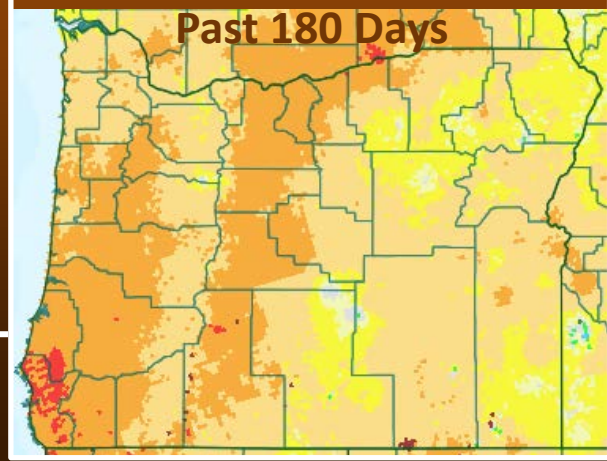
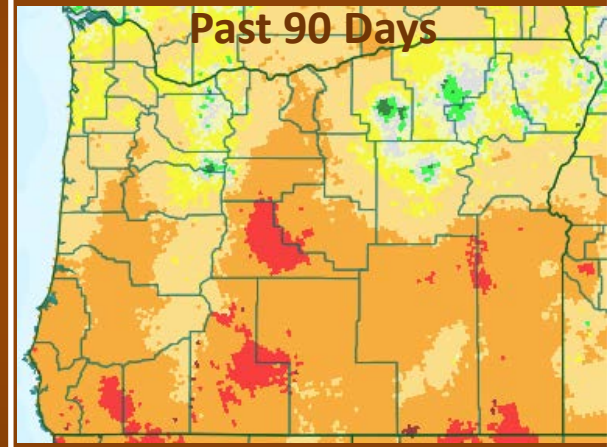
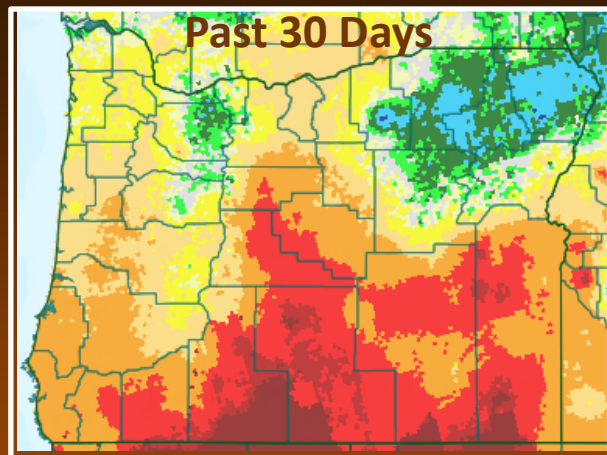
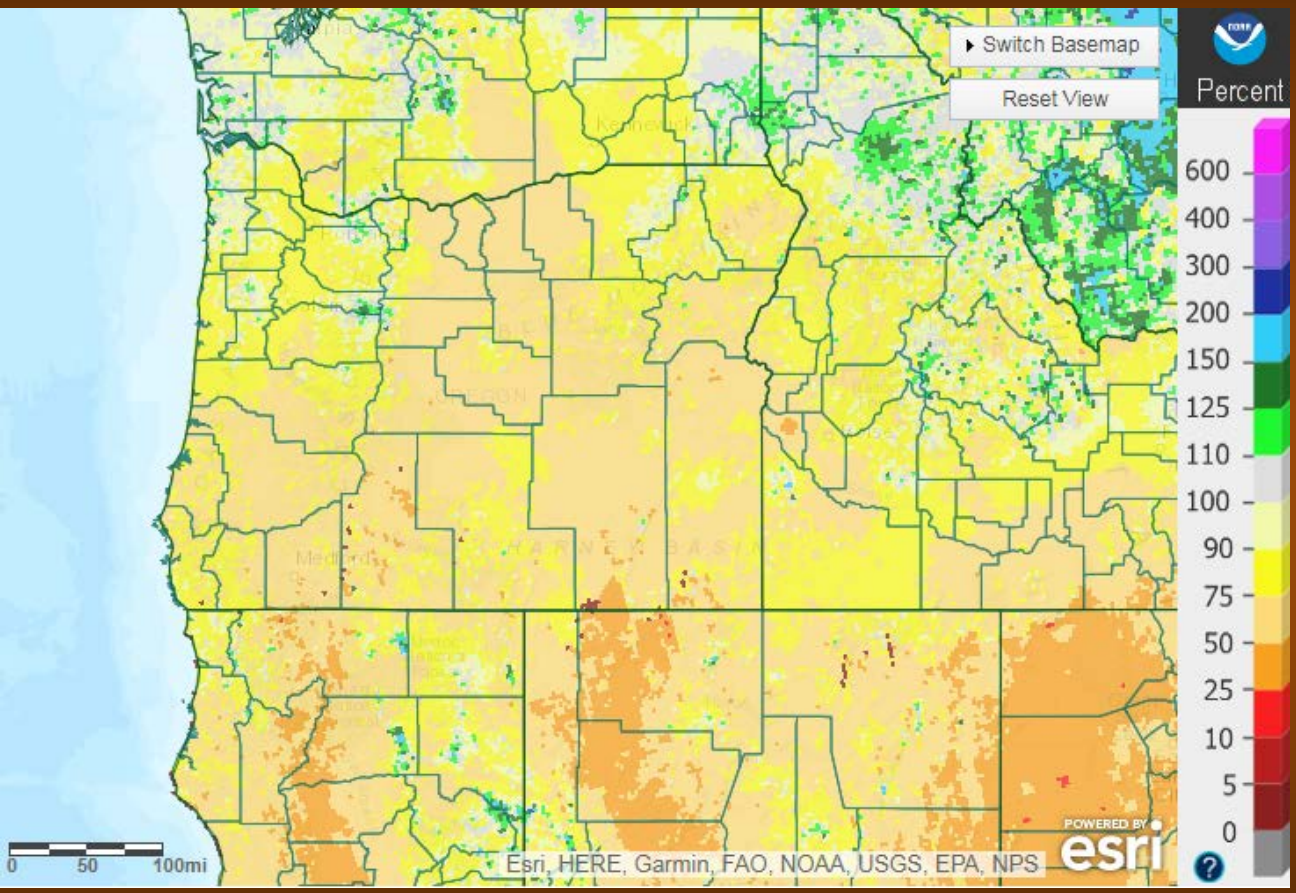
Andy Bryant, NWS Portland  
&

Northwest River Forecast Center Hydrologists



# Precipitation % of Average

## 2018 Water Year



*Precipitation Data as of November 6, 2018*

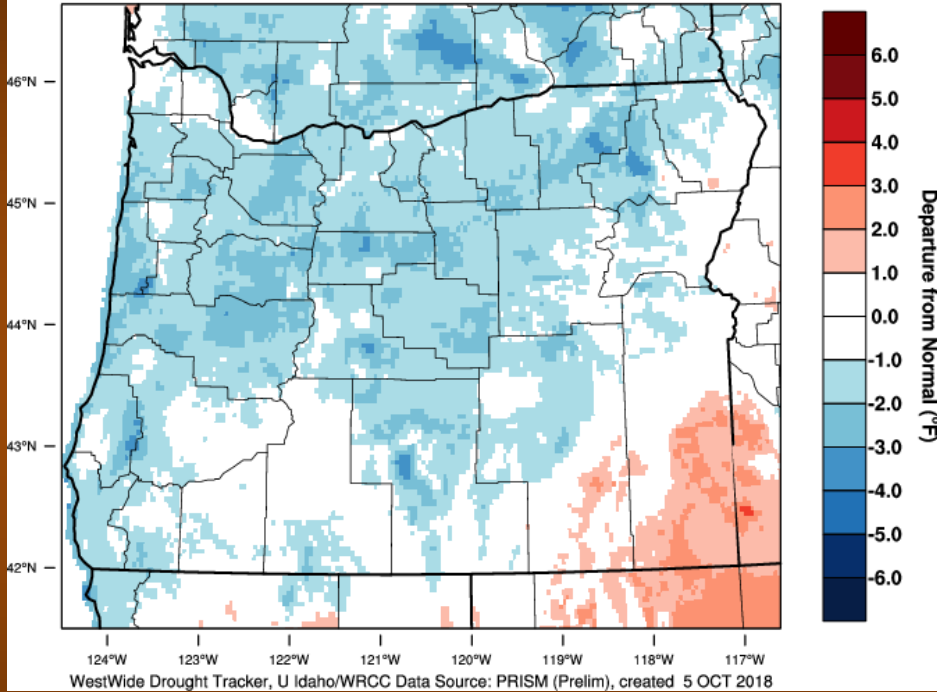
# Recent Temperatures

September 2018

October 2018

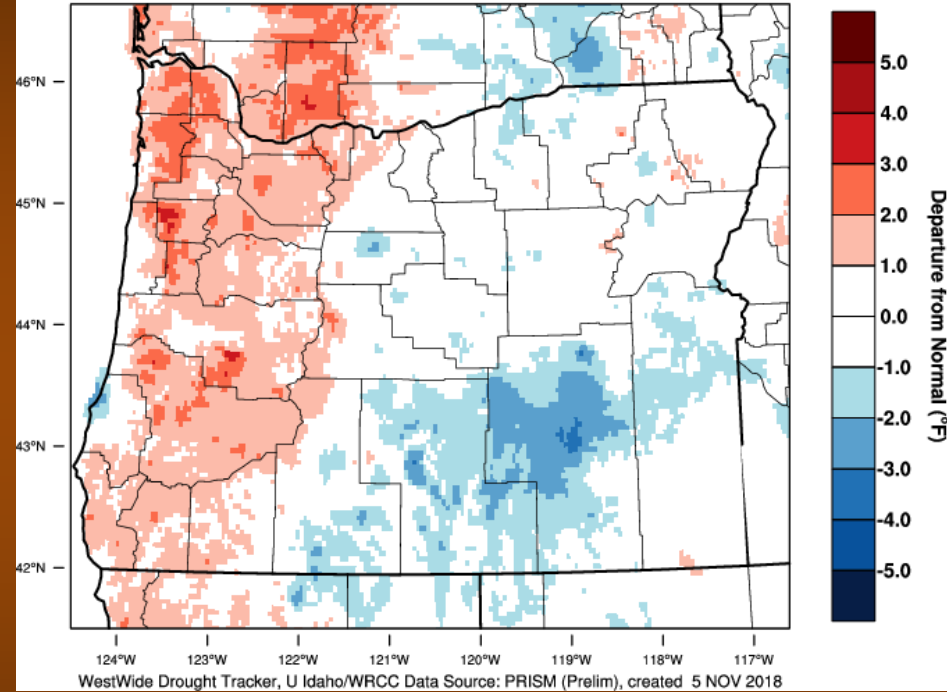
Oregon - Mean Temperature

September 2018 Departure from 1981-2010 Normal



Oregon - Mean Temperature

October 2018 Departure from 1981-2010 Normal

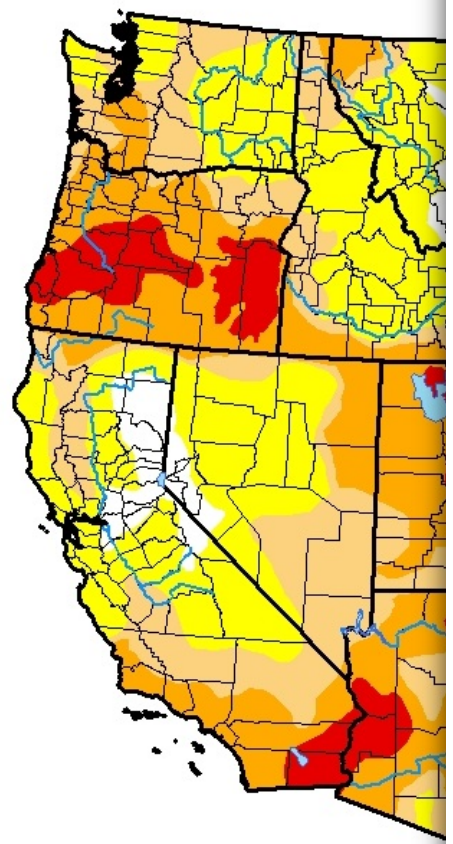




# Drought Monitor

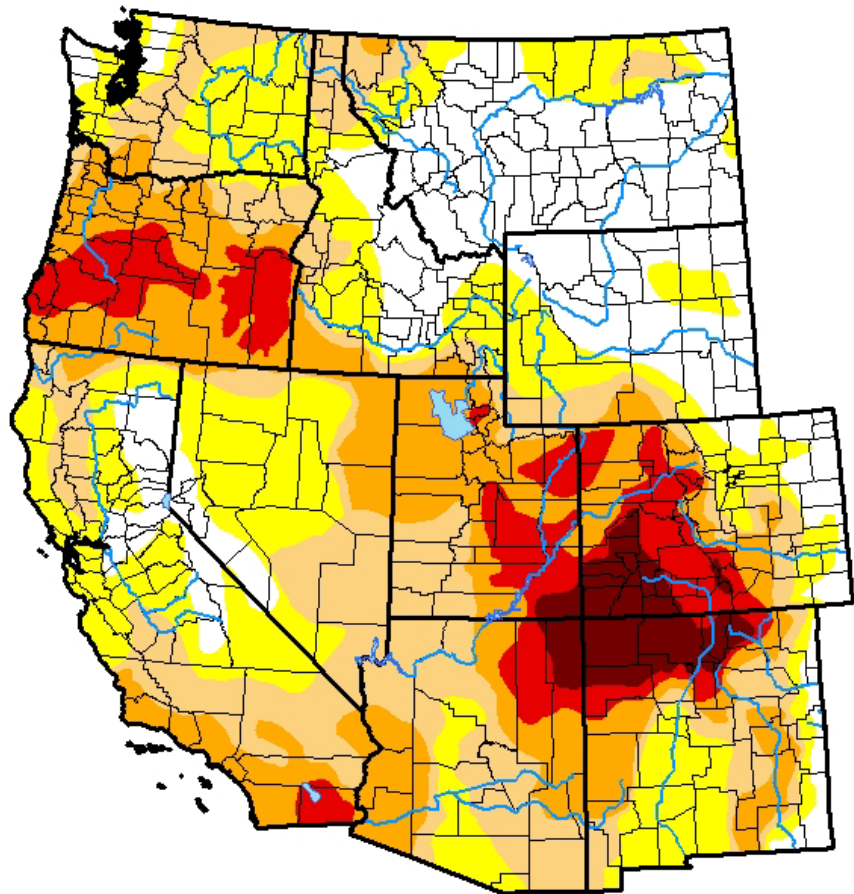
**U.S. Drought Monitor**  
**West**

**October 2, 2018**  
(Released Thursday, Oct. 4, 2018)



**U.S. Drought Monitor**  
**West**

**October 30, 2018**  
(Released Thursday, Nov. 1, 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.*

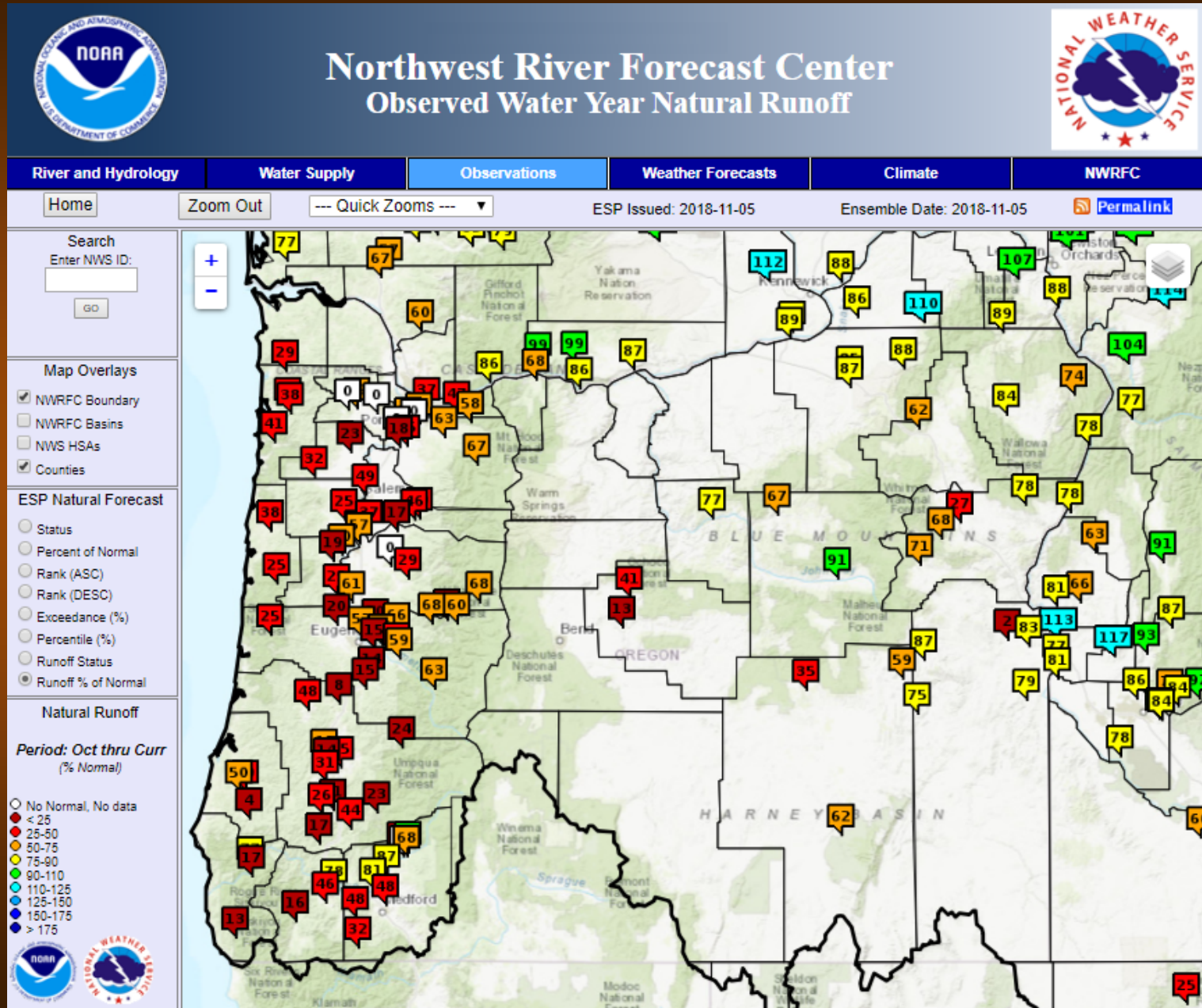
***Author:***

Deborah Bathke  
National Drought Mitigation Center





# Observed WY19 Runoff thus far

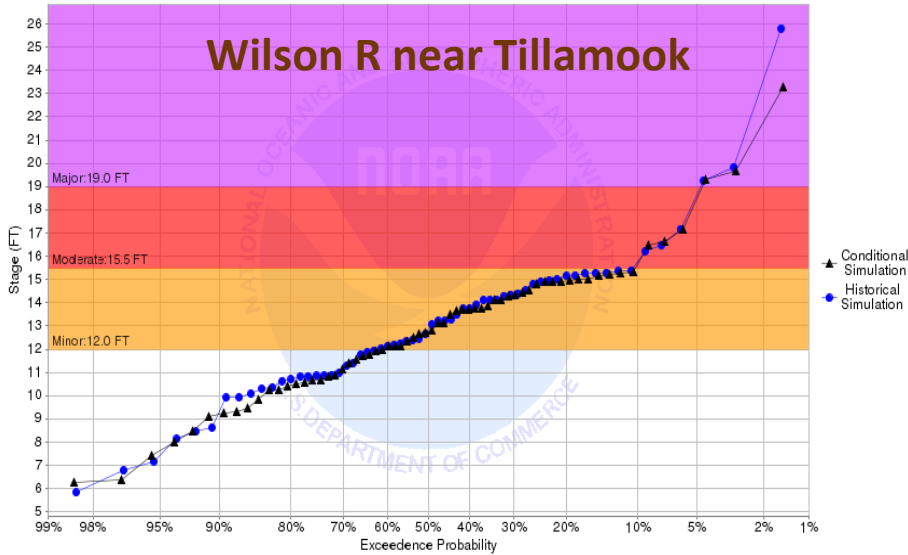




# Exceedance Plots for Winter Runoff

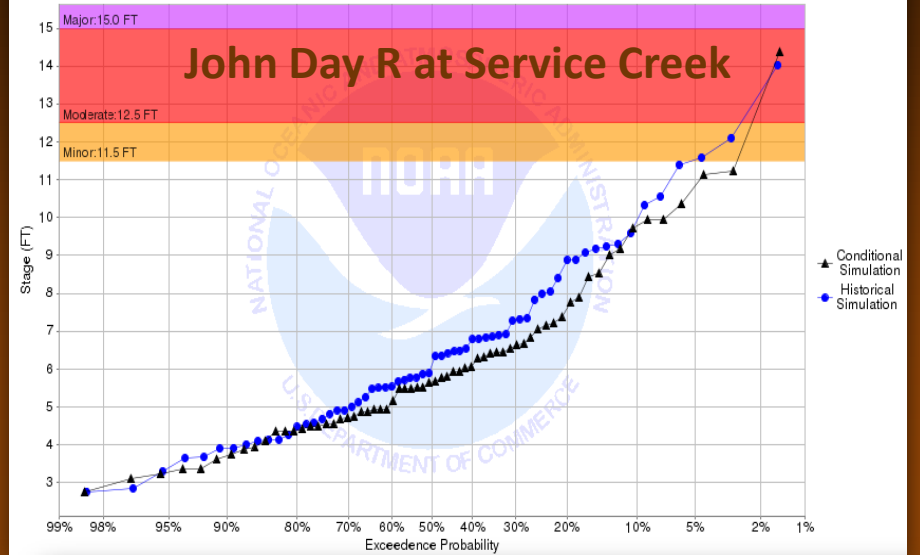
Chance of Exceeding River Stage at TLM03 - Wilson R nr Tillamook  
Forecast for the period 11/05/2018 - 02/03/2019  
This is a conditional simulation based on the current conditions as of 11/05/2018

## Wilson R near Tillamook



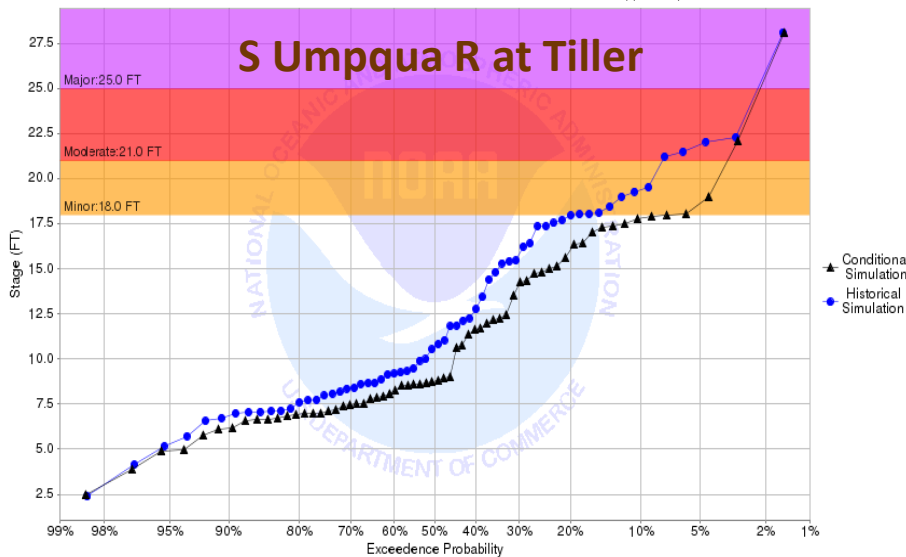
Chance of Exceeding River Stage at SER03 - John Day R at Service Ck  
Forecast for the period 11/05/2018 - 02/03/2019  
This is a conditional simulation based on the current conditions as of 11/05/2018

## John Day R at Service Creek



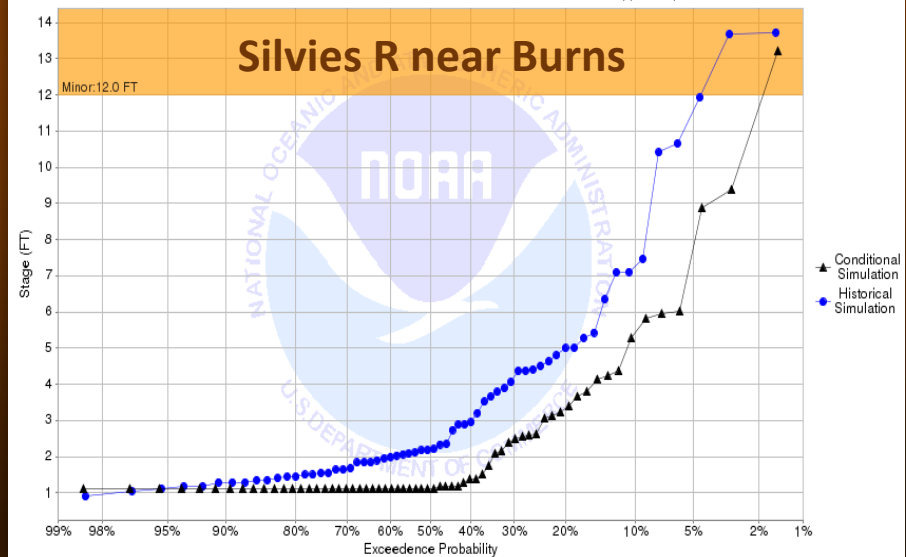
Chance of Exceeding River Stage at TIL03 - S Umpqua R at Tiller  
Forecast for the period 11/05/2018 - 02/03/2019  
This is a conditional simulation based on the current conditions as of 11/05/2018

## S Umpqua R at Tiller



Chance of Exceeding River Stage at BUS03 - Silvie R nr Burns  
Forecast for the period 11/05/2018 - 02/03/2019  
This is a conditional simulation based on the current conditions as of 11/05/2018

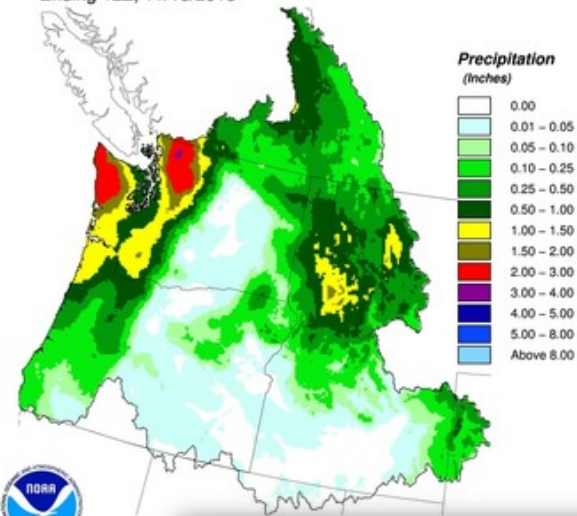
## Silvie R near Burns



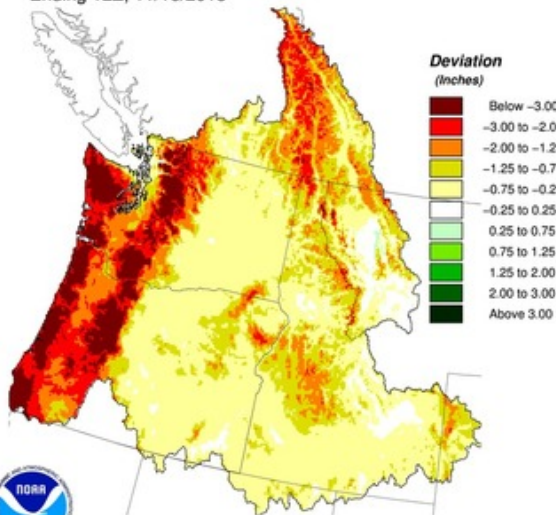


# Mid-November Outlook

10 Day QPF  
Ending 12Z, 11/16/2018

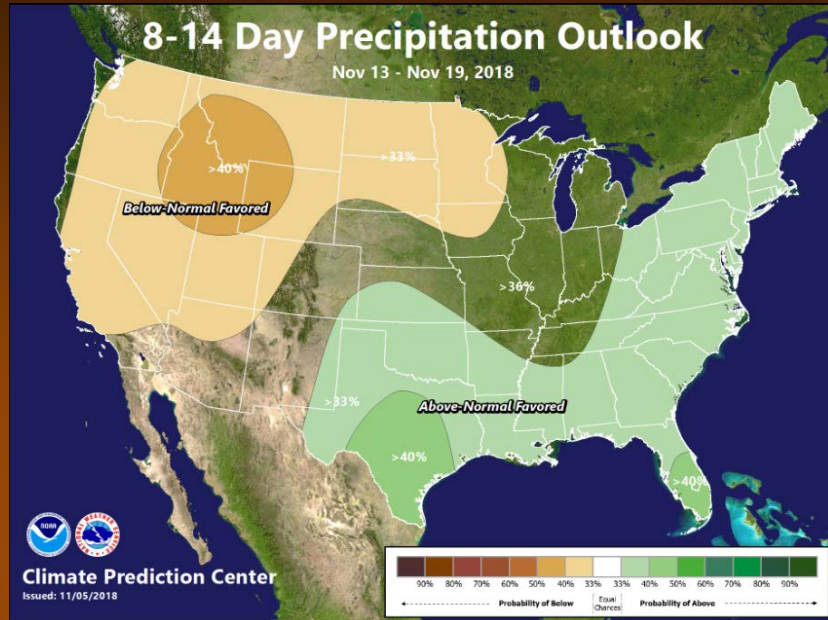


10 Day QPF (Deviation from Climatology)  
Ending 12Z, 11/16/2018

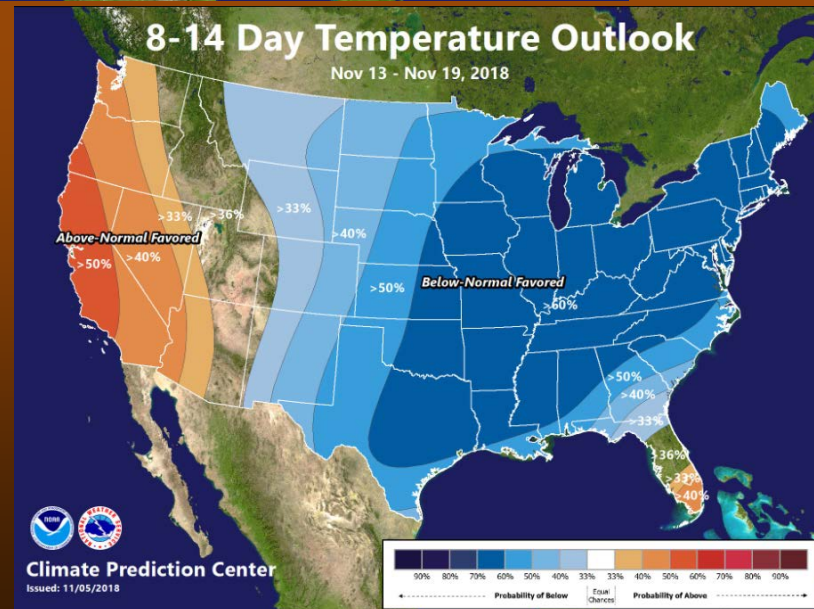


Creation Time: Tue Nov 6 16:34:12 UTC 2018

8-14 Day Precipitation Outlook  
Nov 13 - Nov 19, 2018

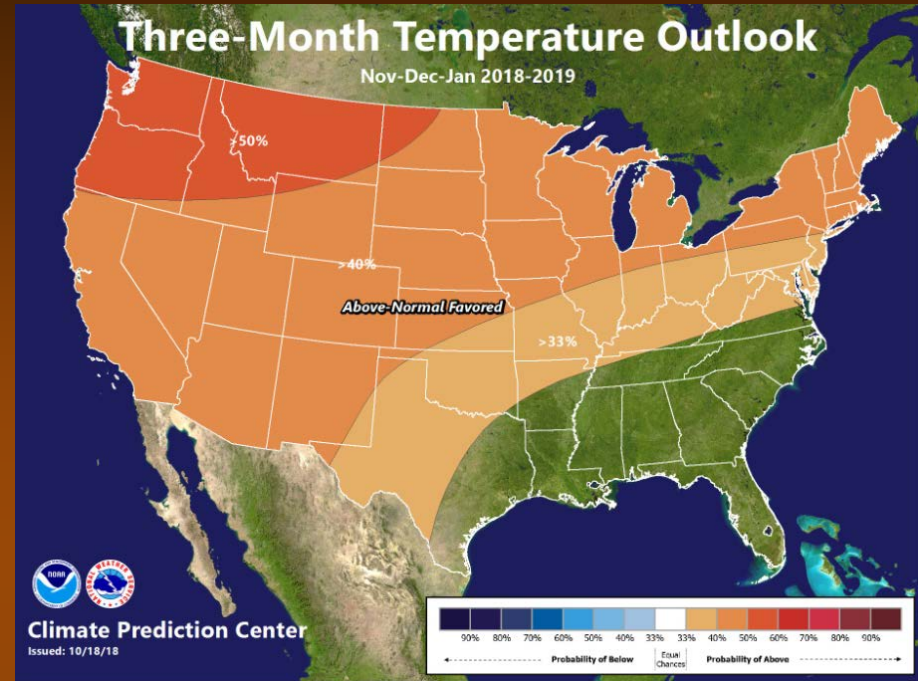
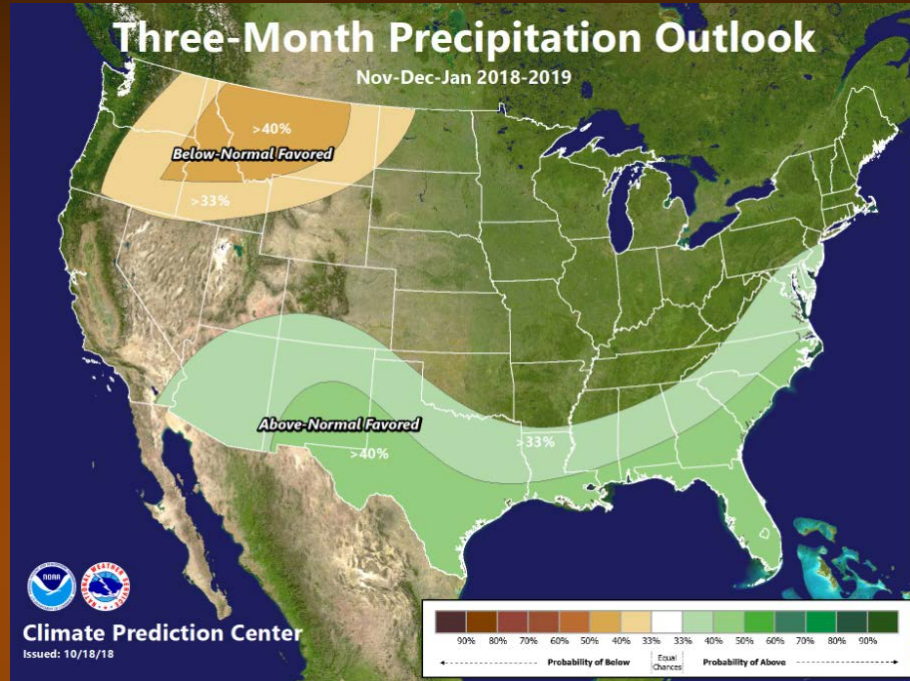


8-14 Day Temperature Outlook  
Nov 13 - Nov 19, 2018



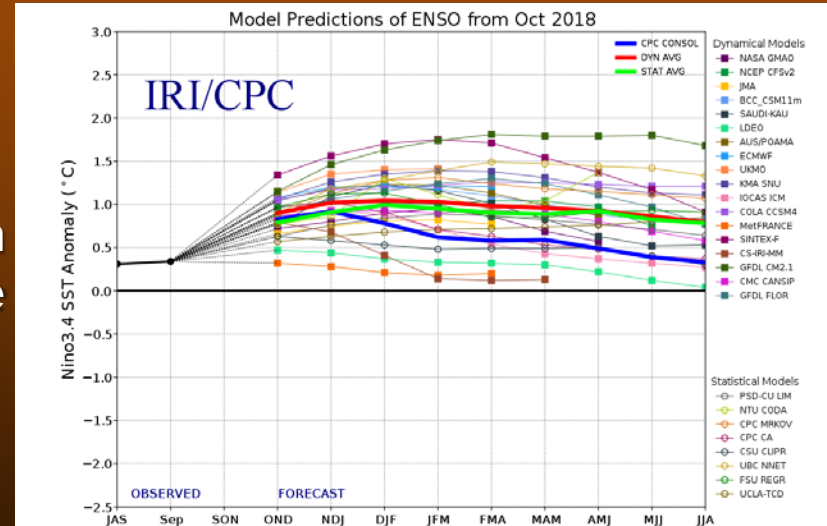


# Outlook for November 2018 - January 2019



[https://www.wrh.noaa.gov/images/sto/GIS\\_NEW/](https://www.wrh.noaa.gov/images/sto/GIS_NEW/)

ENSO Prediction based on consensus of model guidance

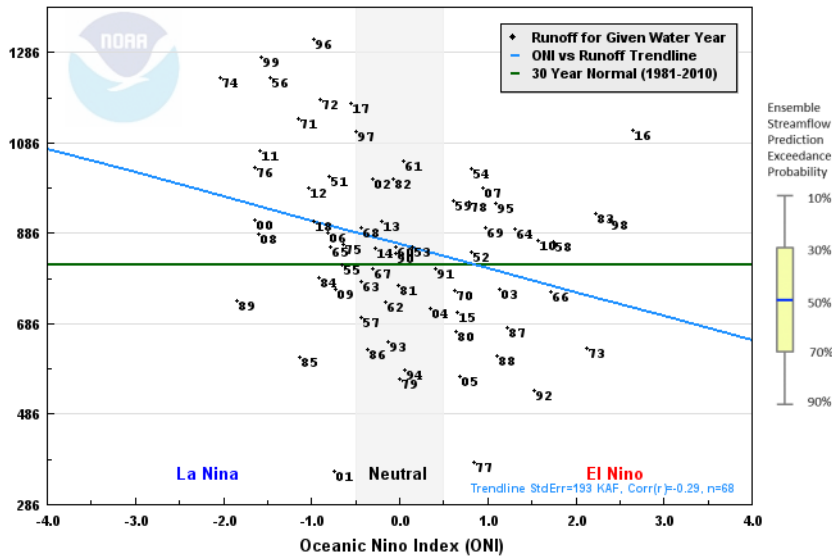




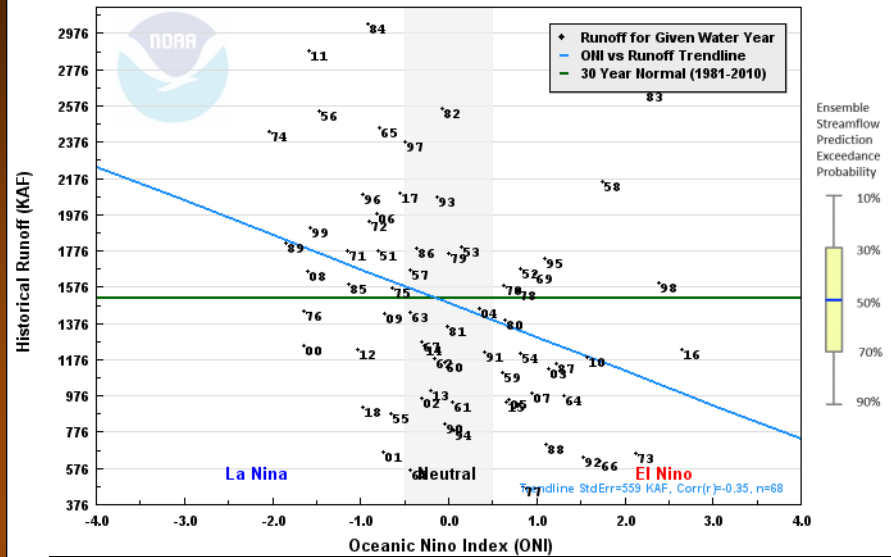


# Historical WY Runoff & ENSO

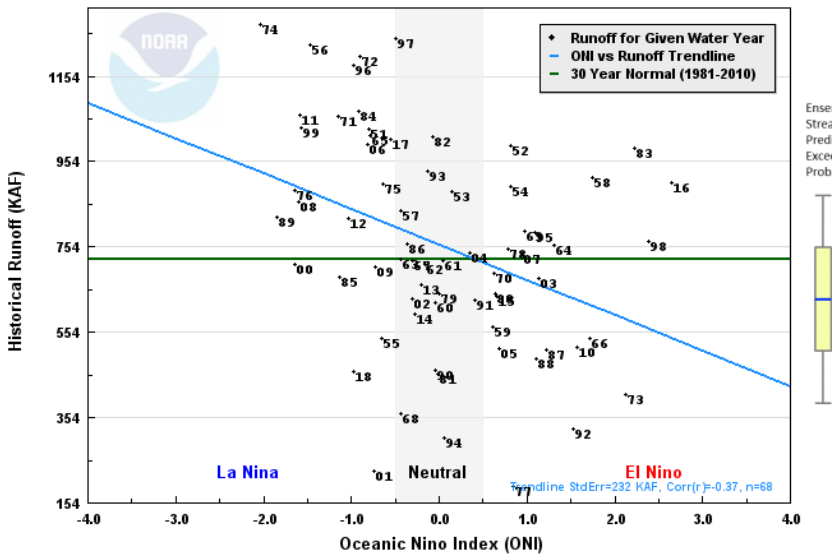
NOV-JAN Oceanic Nino Index vs OCT-SEP Historical Natural Runoff  
(TLM03) WILSON - NEAR TILLAMOOK (1951-2018)



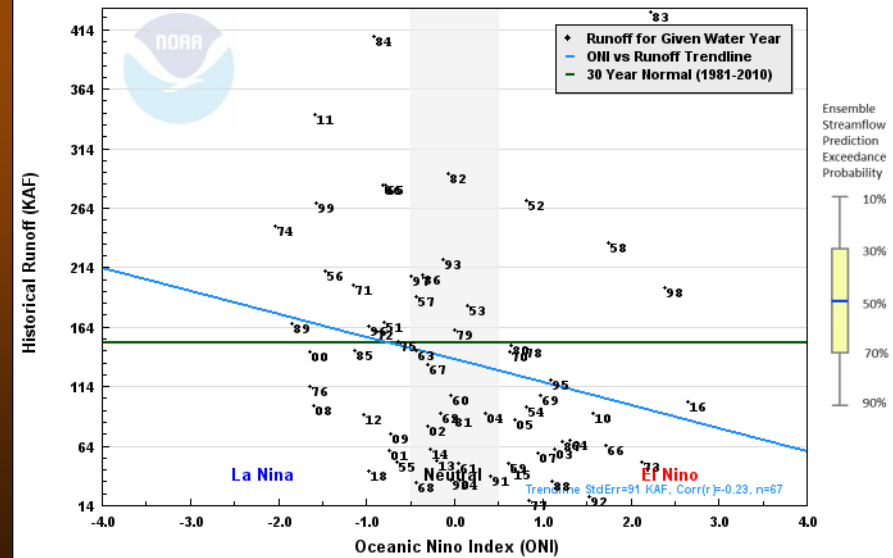
NOV-JAN Oceanic Nino Index vs OCT-SEP Historical Natural Runoff  
(SER03) JOHN DAY - AT SERVICE CK (1951-2018)



NOV-JAN Oceanic Nino Index vs OCT-SEP Historical Natural Runoff  
(TIL03) S UMPQUA - AT TILLER (1951-2018)



NOV-JAN Oceanic Nino Index vs OCT-SEP Historical Natural Runoff  
(BUS03) SILVIES - NEAR BURNS (1951-2018)



Latest Available ONI Index for NDJ:12/01/2017

Created: 11/06/2018 08:34 PST

Latest Available ONI Index for NDJ:12/01/2017

Created: 11/06/2018 08:31 PST



# Oregon Water Supply Availability

November 2018

## USGS Update on Surface Water Conditions

Marc Stewart & Carrie Boudreau

USGS ORWSC

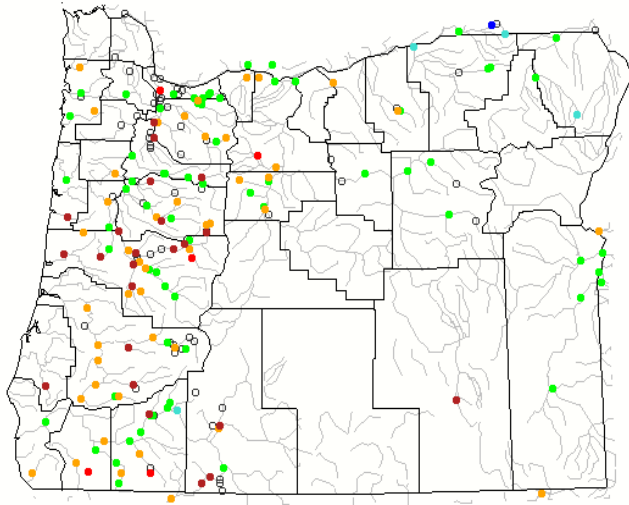
**Provisional Data Statement**

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

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

Oregon or Water-Resources Regions

Sunday, November 04, 2018



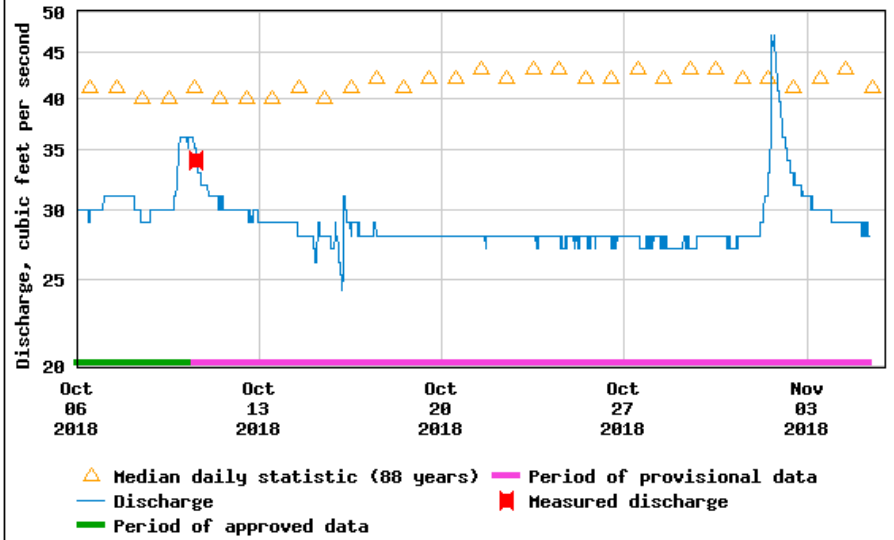
Search USGS streamgage

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

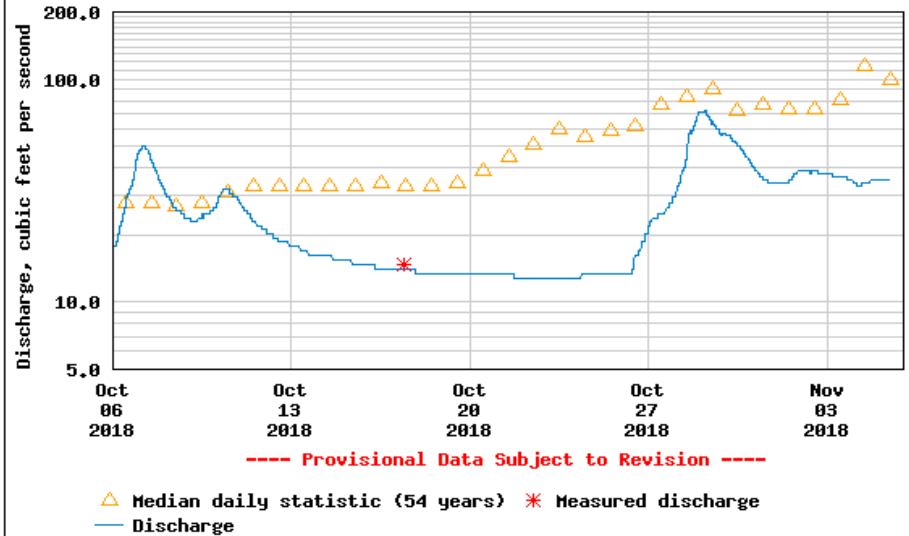
Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: white;">○</span>	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked



## USGS 10396000 DONNER UND BLITZEN RIVER NR FRENCHGLEN OR



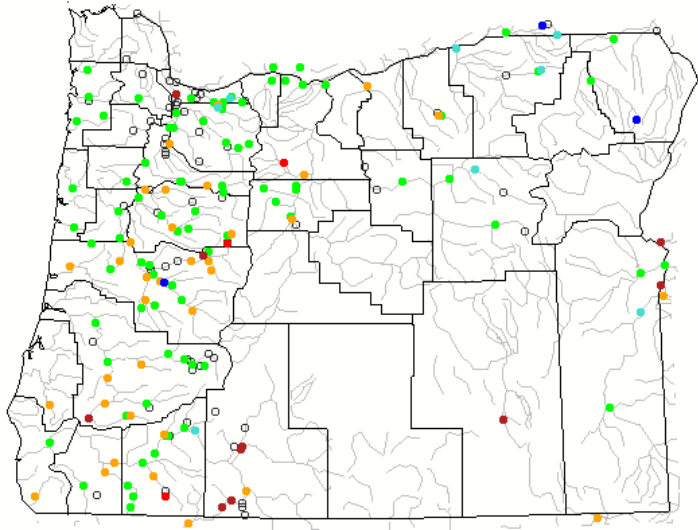
## USGS 14318000 LITTLE RIVER AT PEEL, OR



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

Oregon or Water-Resources Regions All Days

Sunday, November 04, 2018



Search USGS streamgauge

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

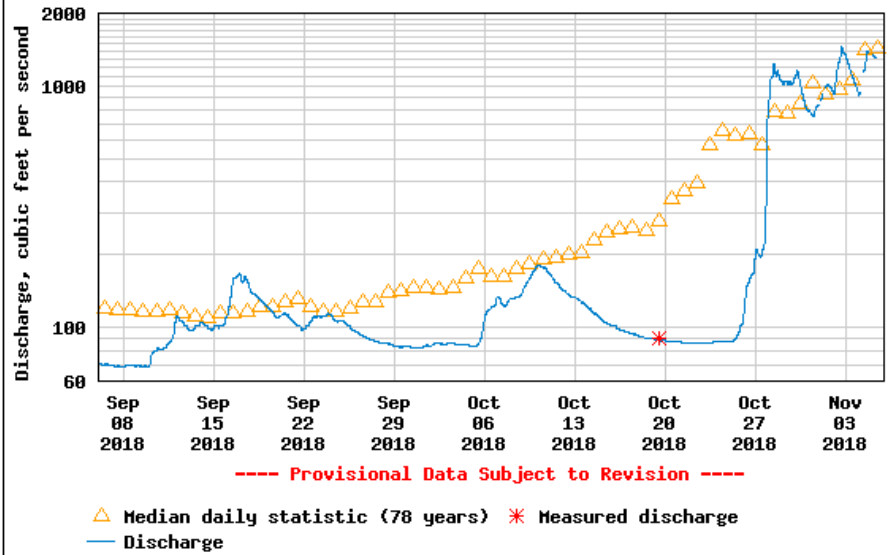
- List of all stations
- Single station
- Nearest stations

### Explanation - Percentile classes

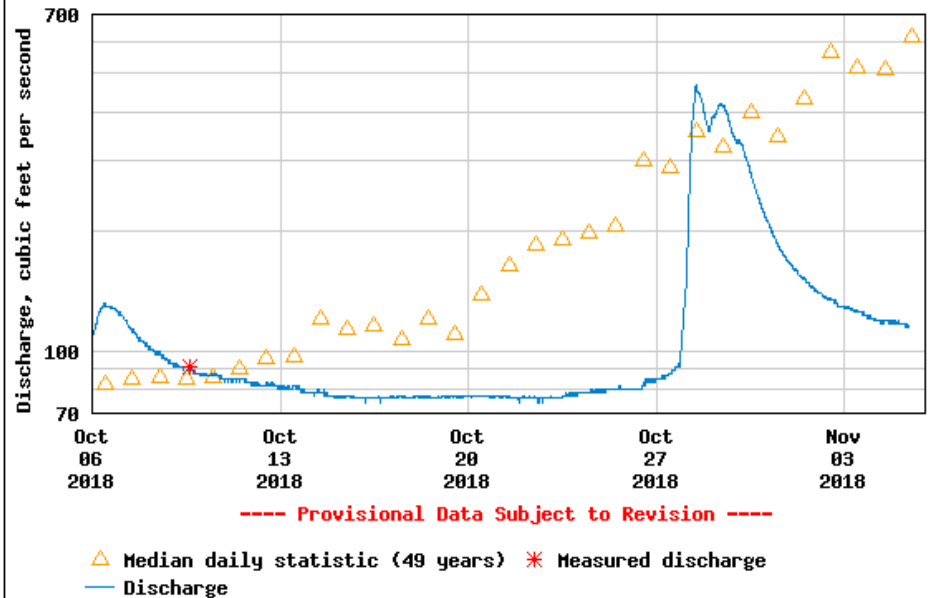
<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: gray;">○</span>
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked



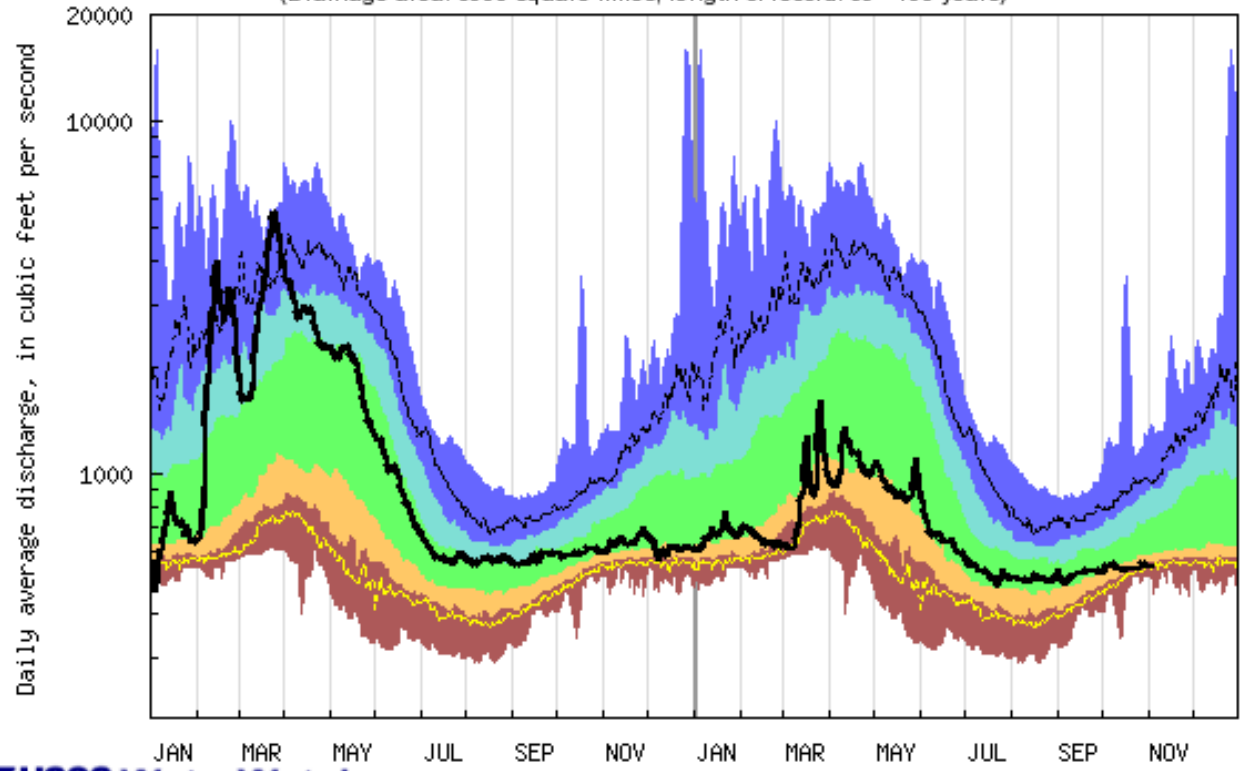
## USGS 14301000 NEHALEM RIVER NEAR FOSS, OR



## USGS 14400000 CHETCO RIVER NEAR BROOKINGS, OR



USGS 11502500 WILLIAMSON RIVER BLW SPRAGUE RIVER NR CHILOQUIN,OR  
 (Drainage area: 3000 square miles, length of record: 99 - 100 years)



USGS WaterWatch

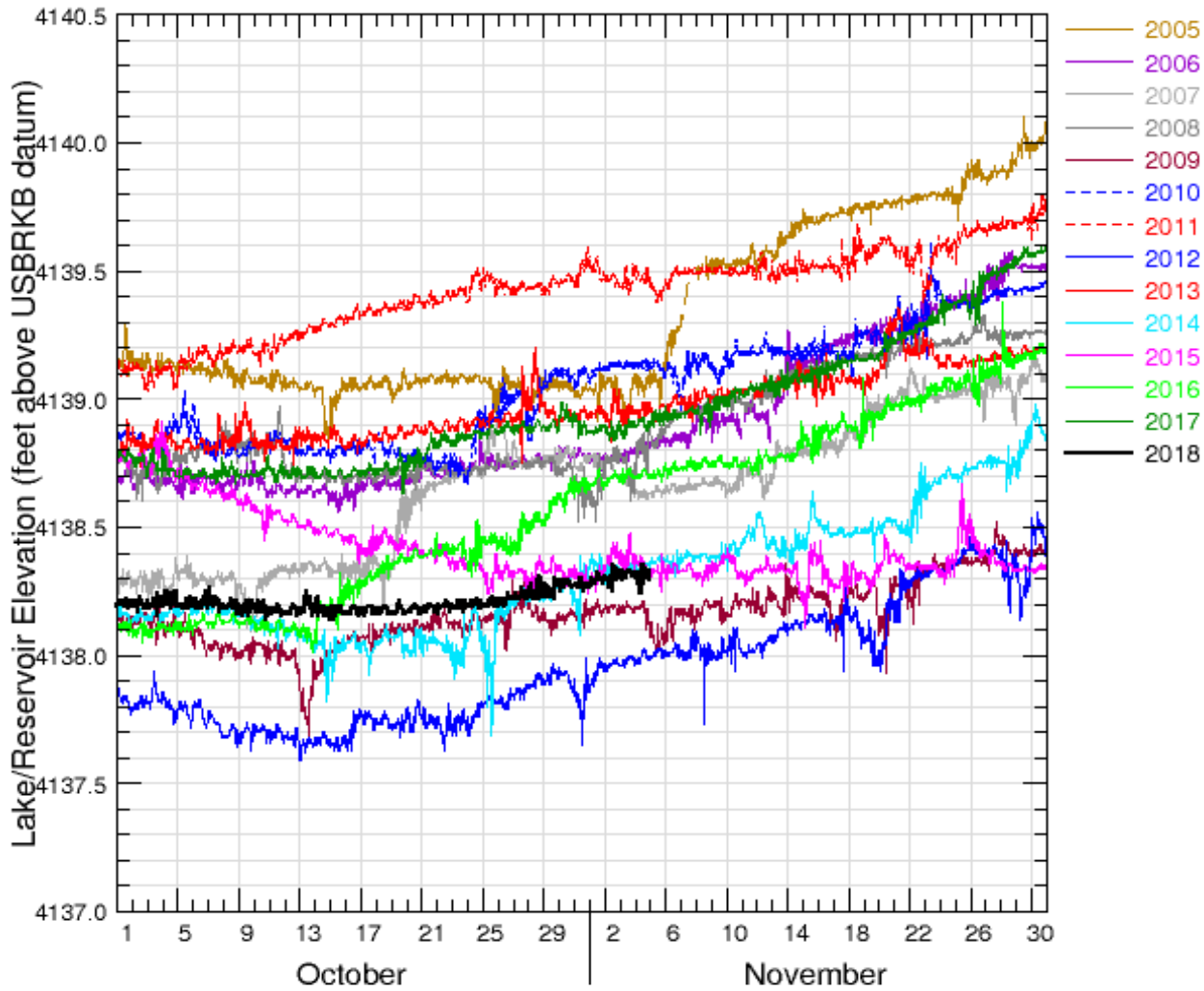
Last updated: 2018-11-05

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		Flow



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

Data from U.S. Geological Survey



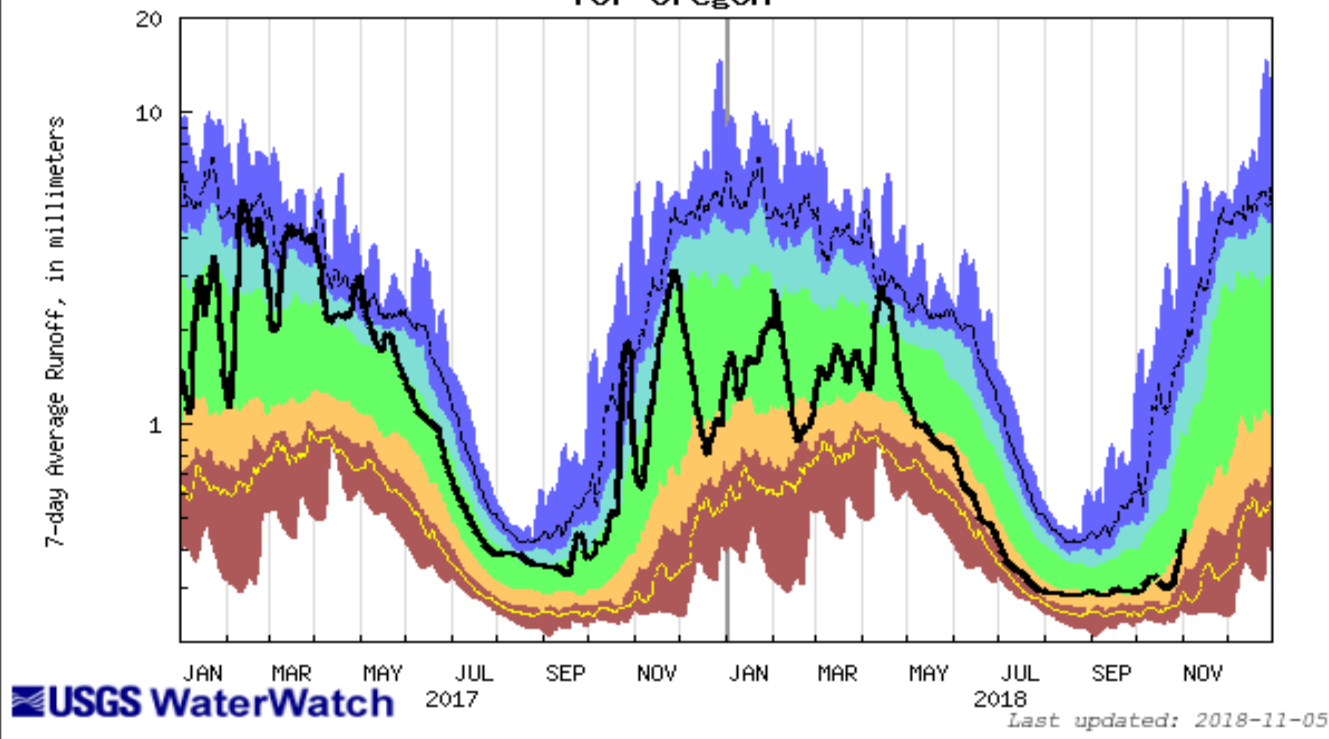
US GEOLOGICAL SURVEY, OREGON WATER SCIENCE CENTER  
 WATER AVAILABILITY REPORT FOR OCTOBER 2018

Station	NRCS SWSI Basin	Monthly mean discharge		Change in dis- charge from previous month (percent)
		Cubic feet per second	Percent of average	
Donner Und Blitzen nr Frenchglen	Harney	29	64	12
*)Deep Creek above Adel	Lake County	14	61	56
*)Chewaucan River near Paisley	Lake County	32	84	33
Williamson River near Chiloquin	Klamath	543	90	5
Owyhee River near Rome	Owyhee	123	77	50
*)NF Malheur River near Beulah	Malheur	48	91	4
Grande Ronde R at Troy	Grande Ronde Powder/Burnt	722	92	34
Umatilla River nr Gibbon	Umatilla Lower John Day	52	100	11
John Day River at Service Crk	Upper John Day	248	66	300
*)Little Deschutes River nr LaPine	Upper Deschutes	57	79	-34
Hood River nr Hood River	Lower Deschutes Mt.Hood	310	69	11
Willamette River at Salem	Willamette	7,721	61	2
Wilson River near Tillamook	North Coast	195	49	150
Umpqua River near Elkton	Rogue/Umpqua	1,088	66	30
Rogue River near Agness	Rogue/Umpqua	1,698	88	-12
SF Coquille River at Powers	South Coast	25	19	47
Chetco River near Brookings	South Coast	114	22	39

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



Duration hydrograph of 7-day average runoff for Oregon



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

Power Point "USGS Update on Surface Water Conditions"

By: Marc Stewart & Carrie Boudreau USGS ORWSC


Water Availability Report By: Tiffany Rae Jacklin  
USGS ORWSC





Water Supply Conditions Report

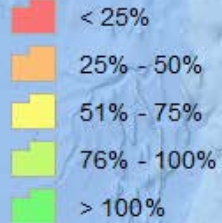
# Water Supply Availability Committee

A stylized illustration of a mountain range. The mountains are rendered in shades of brown and tan, with white snow-capped peaks. The sky is a light blue, and there are several white, fluffy clouds. The foreground is a solid dark brown color.

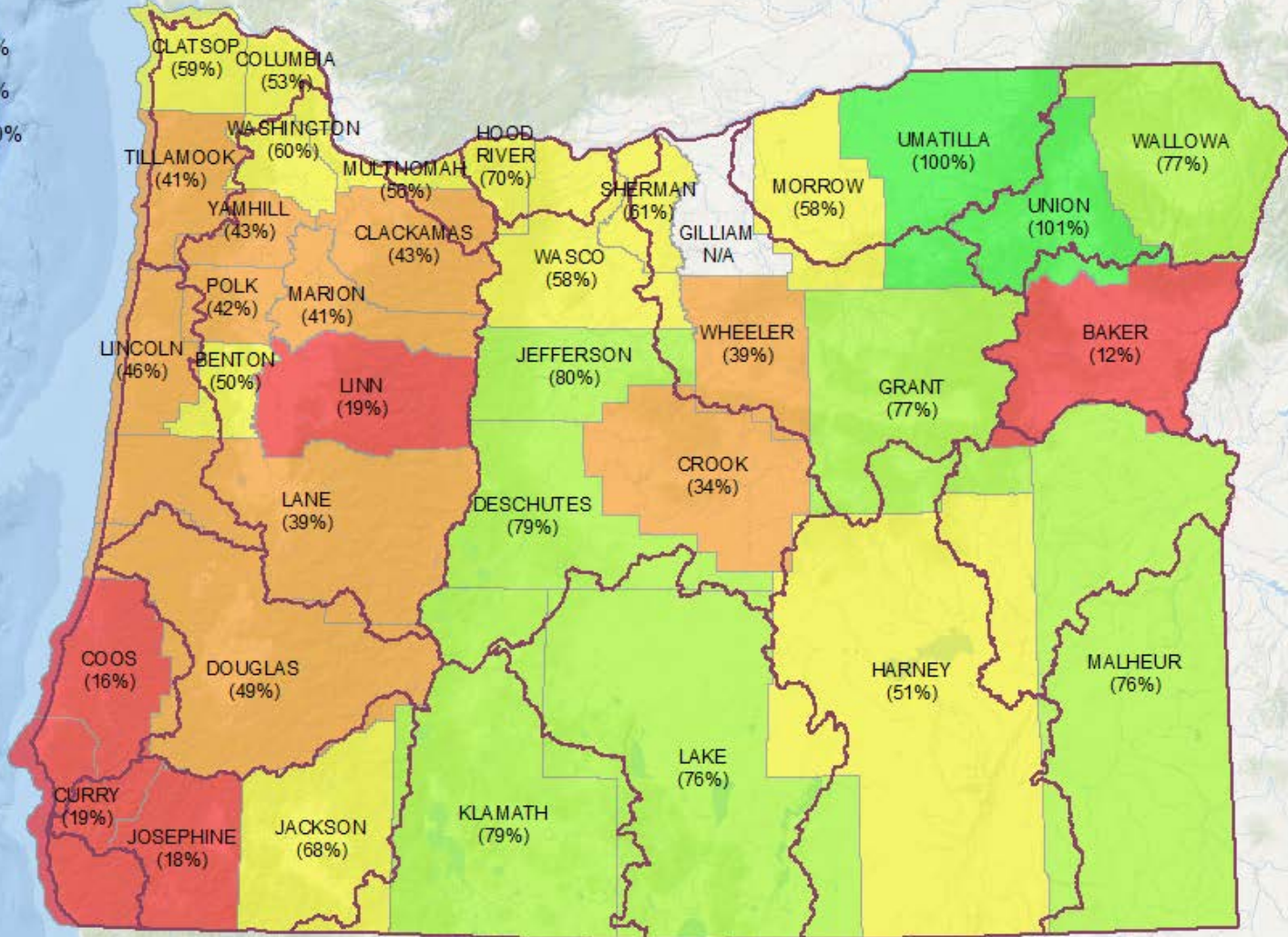
Ken Stahr  
Oregon Water Resources  
Department  
November 6, 2018

# Percent of Average Streamflow October - 2018

## County



## WRD Basin

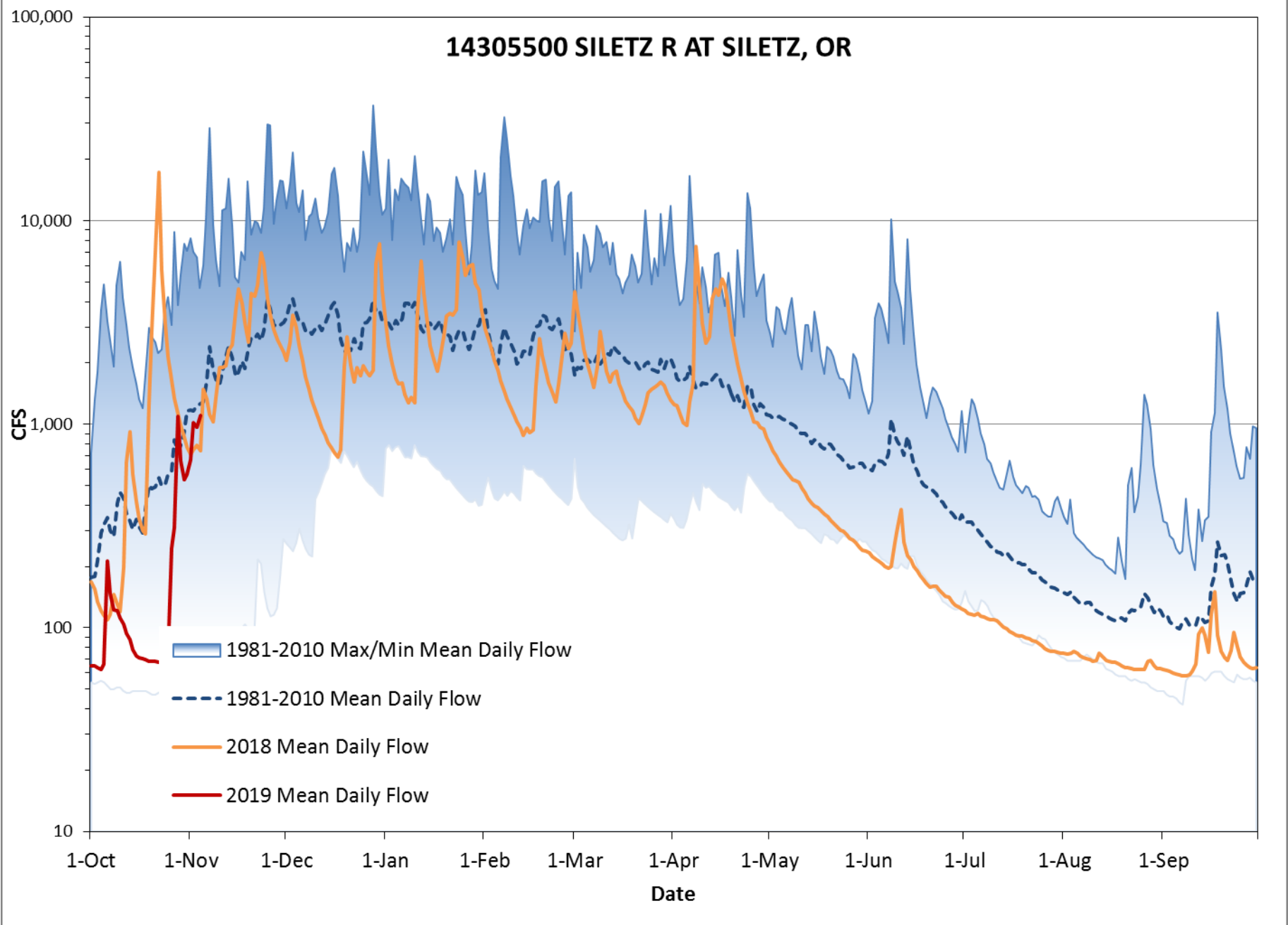


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

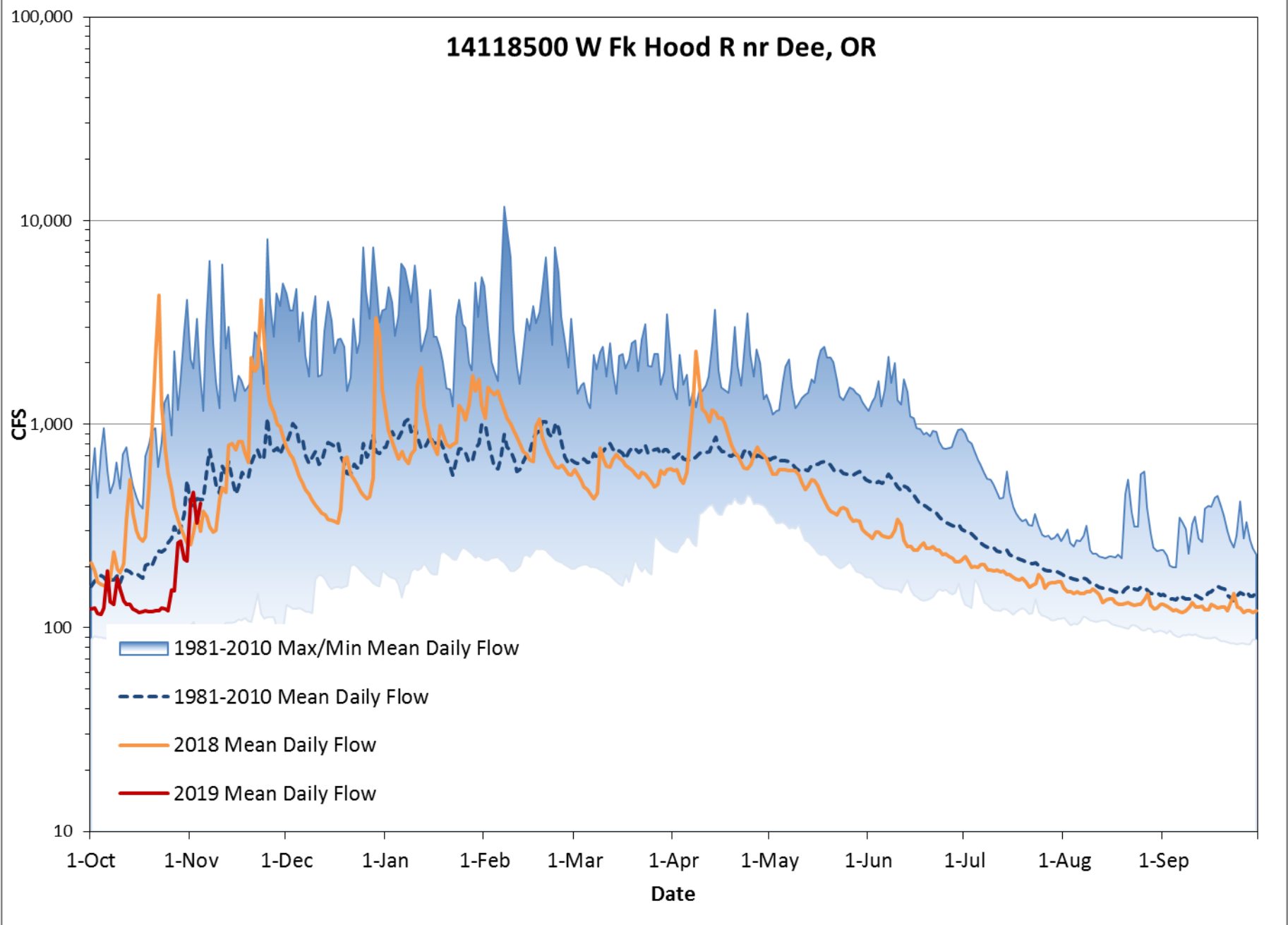


County	Water Year % of average through October, 2019	% of average for October	% of average for 11/02/2018	# of data points
Baker	12%	12%	63%	1
Clackamas	43%	43%	141%	4
Coos	16%	16%	7%	1
Crook	34%	34%	49%	1
Curry	19%	19%	10%	1
Deschutes	75%	79%	84%	4
Douglas	49%	49%	37%	4
Grant	77%	77%	108%	5
Harney	51%	51%	50%	3
Hood River	70%	70%	117%	2
Jackson	68%	68%	60%	2
Josephine	18%	18%	21%	1
Klamath	79%	79%	71%	4
Lake	76%	76%	62%	2
Lane	39%	39%	28%	4
Lincoln	46%	46%	71%	3
Linn	19%	19%	30%	1
Malheur	75%	76%	92%	3
Marion	41%	41%	80%	3
Morrow	58%	58%	65%	2
Polk	42%	42%	29%	1
Tillamook	41%	41%	108%	3
Umatilla	92%	100%	131%	4
Union	101%	101%	208%	1
Wallowa	77%	77%	198%	4
Wheeler	39%	39%	53%	3
Yamhill	43%	43%	47%	1
<b>West Side</b>	<b>37%</b>	<b>38%</b>	<b>57%</b>	<b>24</b>
<b>East Side</b>	<b>65%</b>	<b>70%</b>	<b>99%</b>	<b>38</b>
<b>State</b>	<b>52%</b>	<b>57%</b>	<b>82%</b>	<b>68</b>

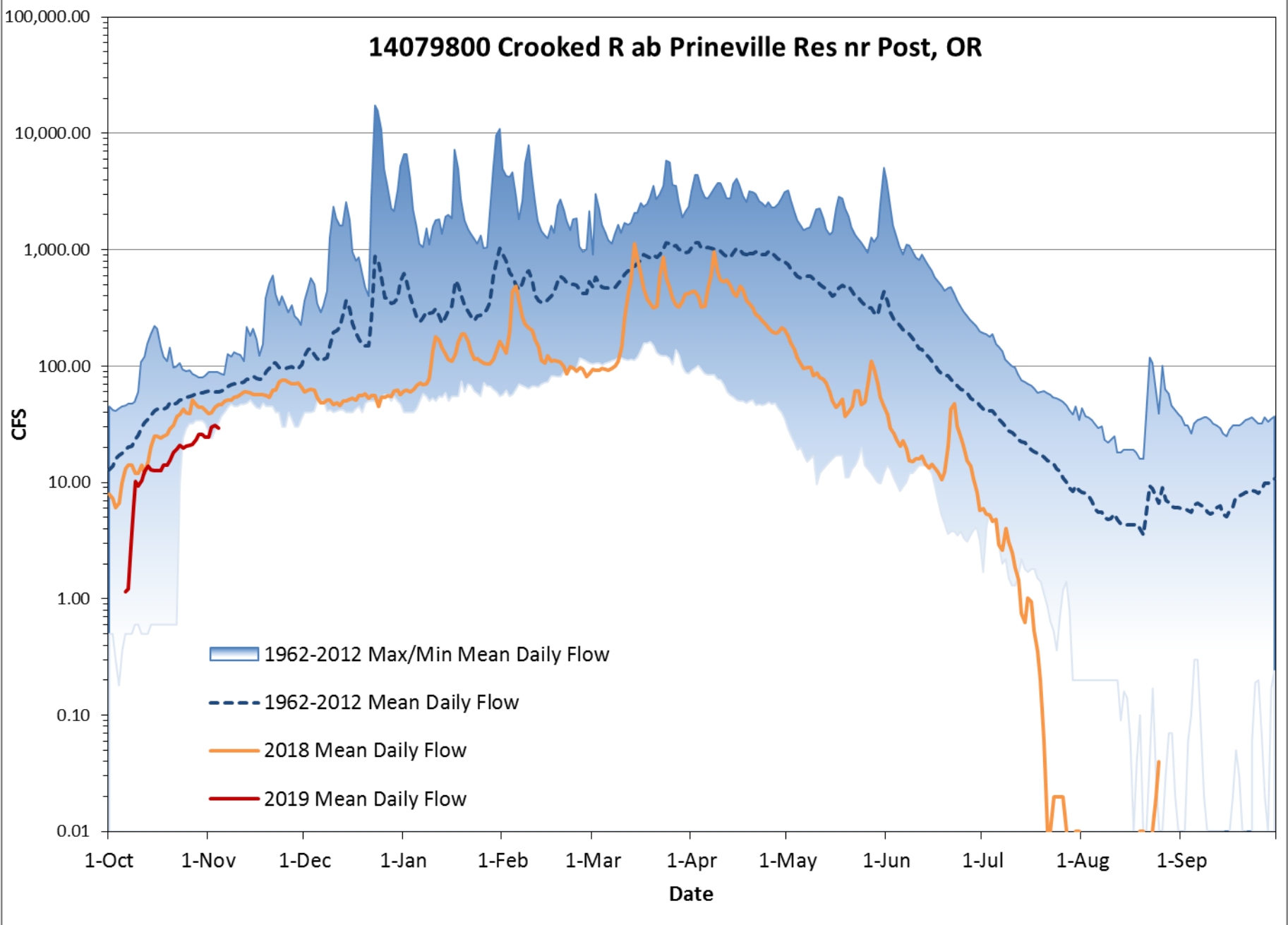
# 14305500 SILETZ R AT SILETZ, OR



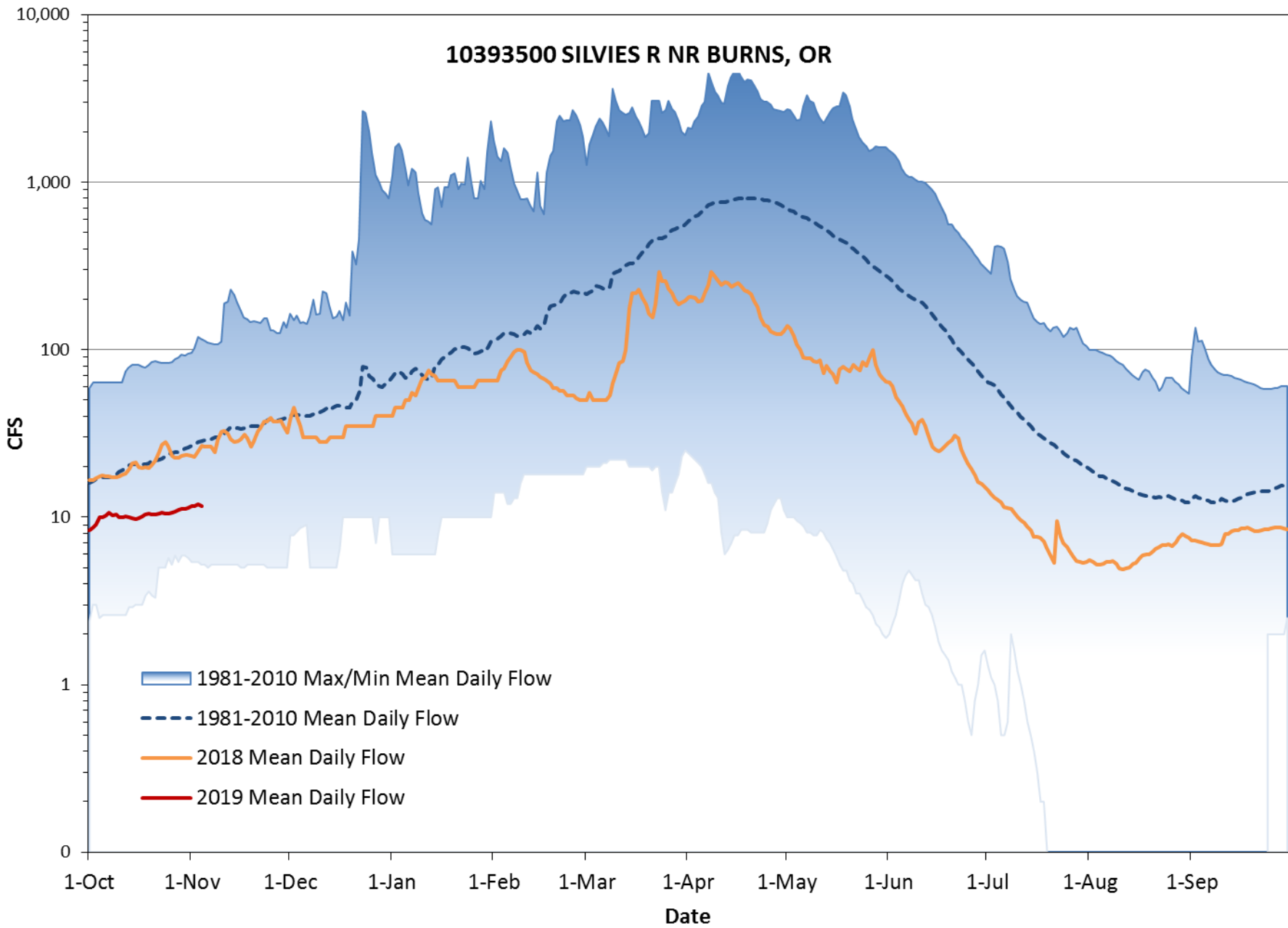
# 14118500 W Fk Hood R nr Dee, OR



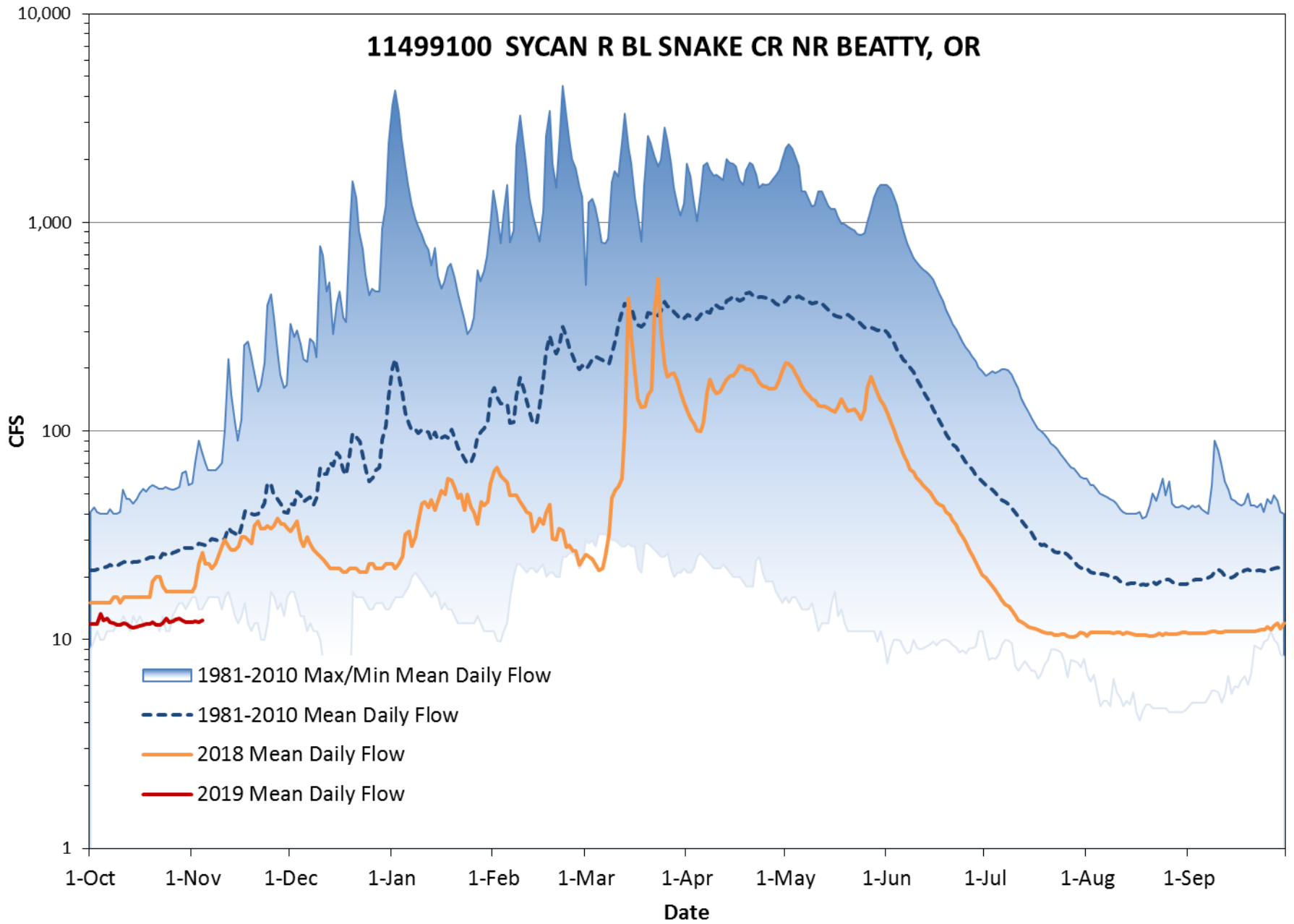
# 14079800 Crooked R ab Prineville Res nr Post, OR



# 10393500 SILVIES R NR BURNS, OR



# 11499100 SYCAN R BL SNAKE CR NR BEATTY, OR





OREGON



WATER RESOURCES  
DEPARTMENT

**Thank you.**

# RECLAMATION

*Managing Water in the West*

## Oregon Water Supply Availability Committee Meeting

Pacific Northwest Regional Office  
River and Reservoir Operations  
November 6, 2018



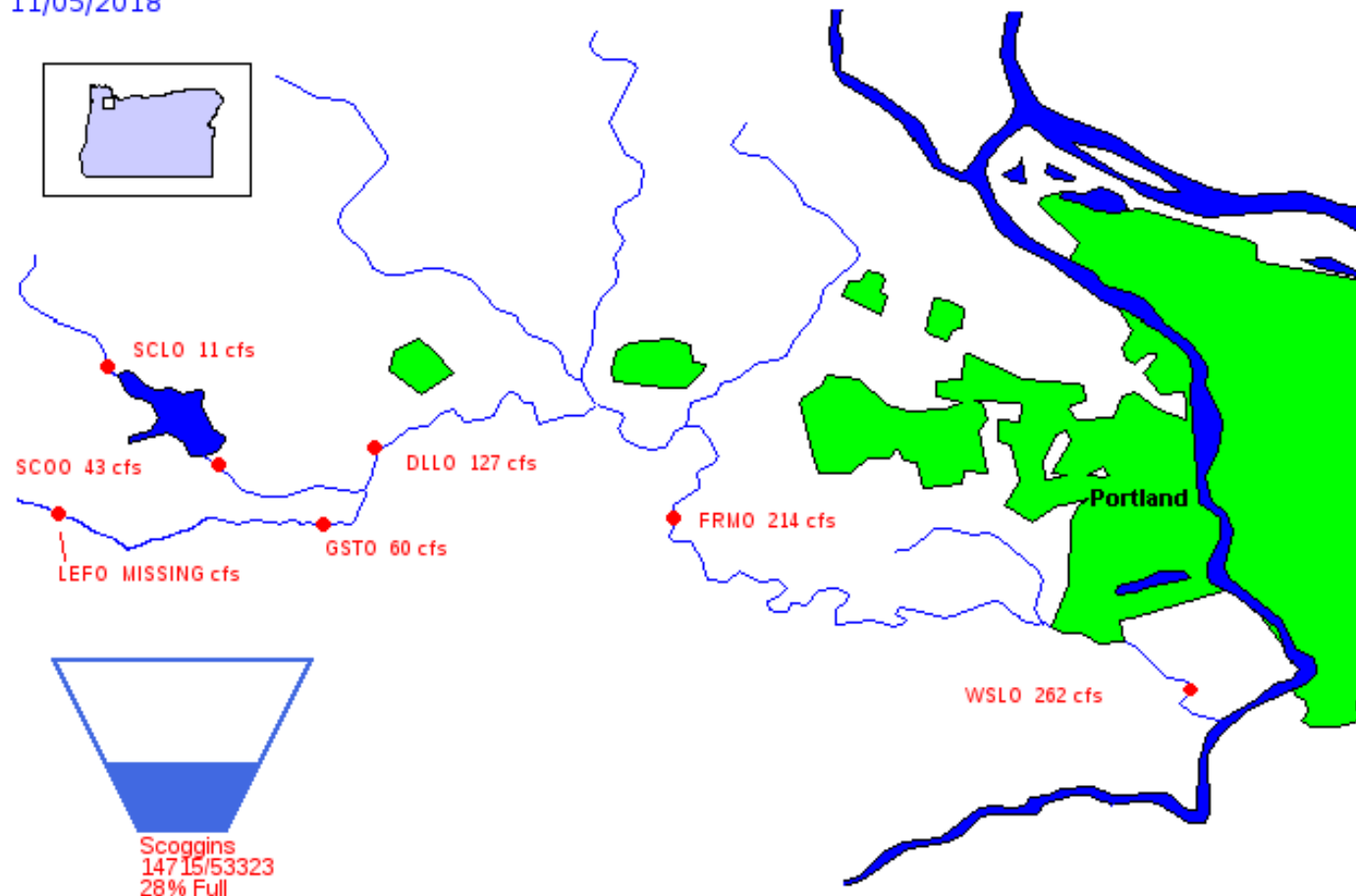
U.S. Department of the Interior  
Bureau of Reclamation

# Current Conditions

RECLAMATION

# Tualatin River Basin

11/05/2018

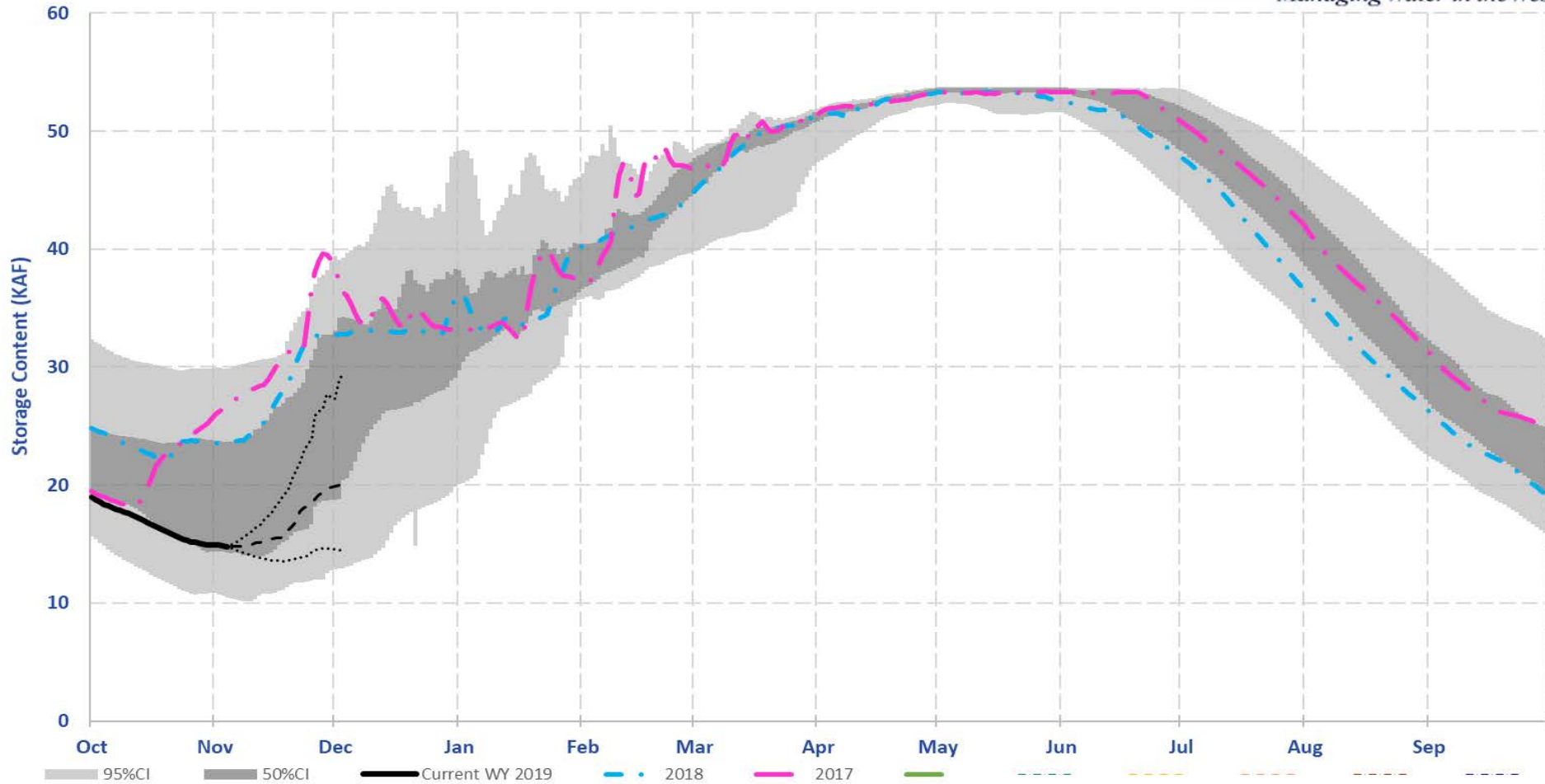


RECLAMATION

# Tualatin River Basin: Scoggins

RECLAMATION  
Managing Water in the West

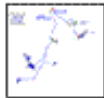
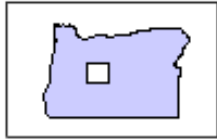
SCO AF



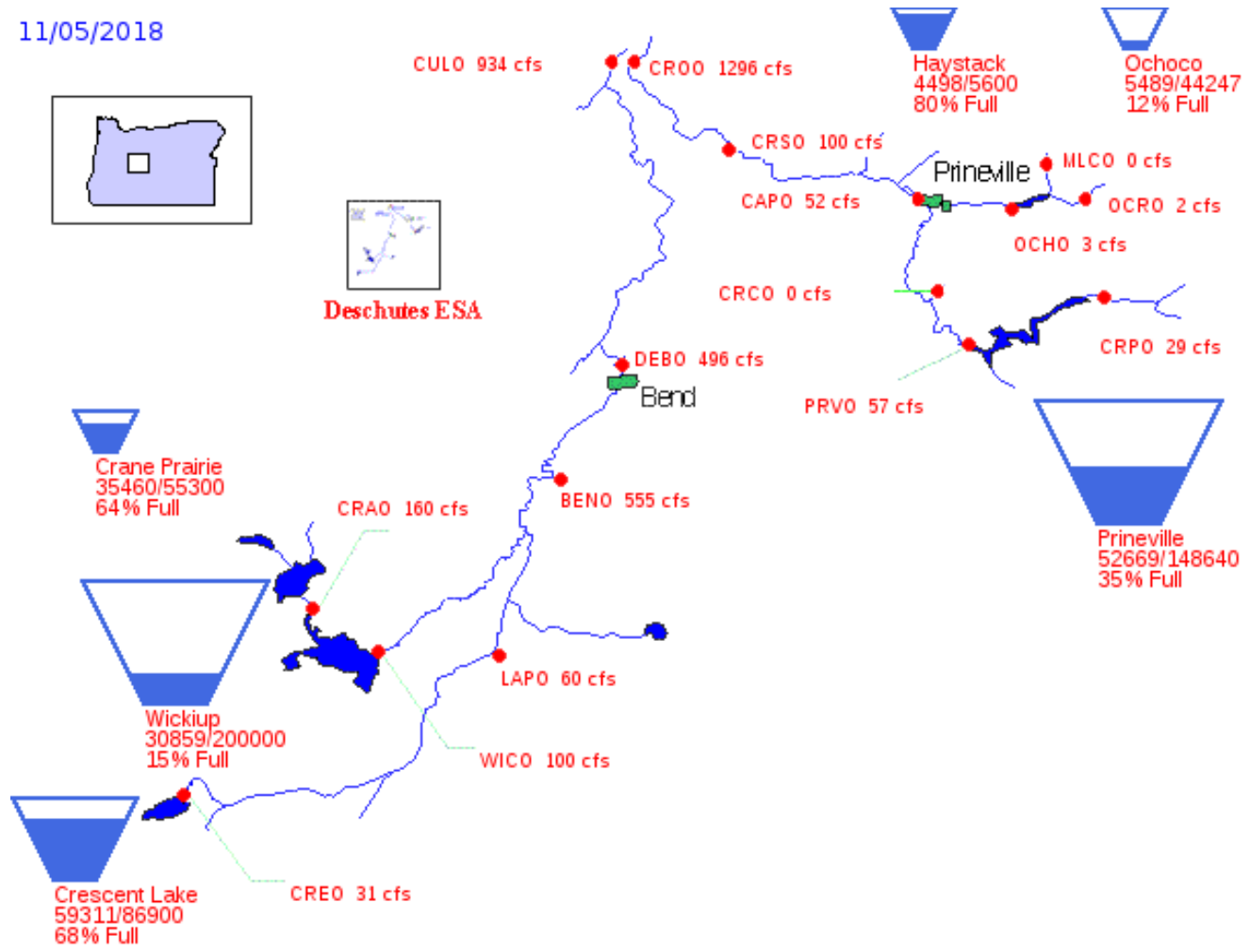
RECLAMATION

# Deschutes River Basin

11/05/2018



Deschutes ESA

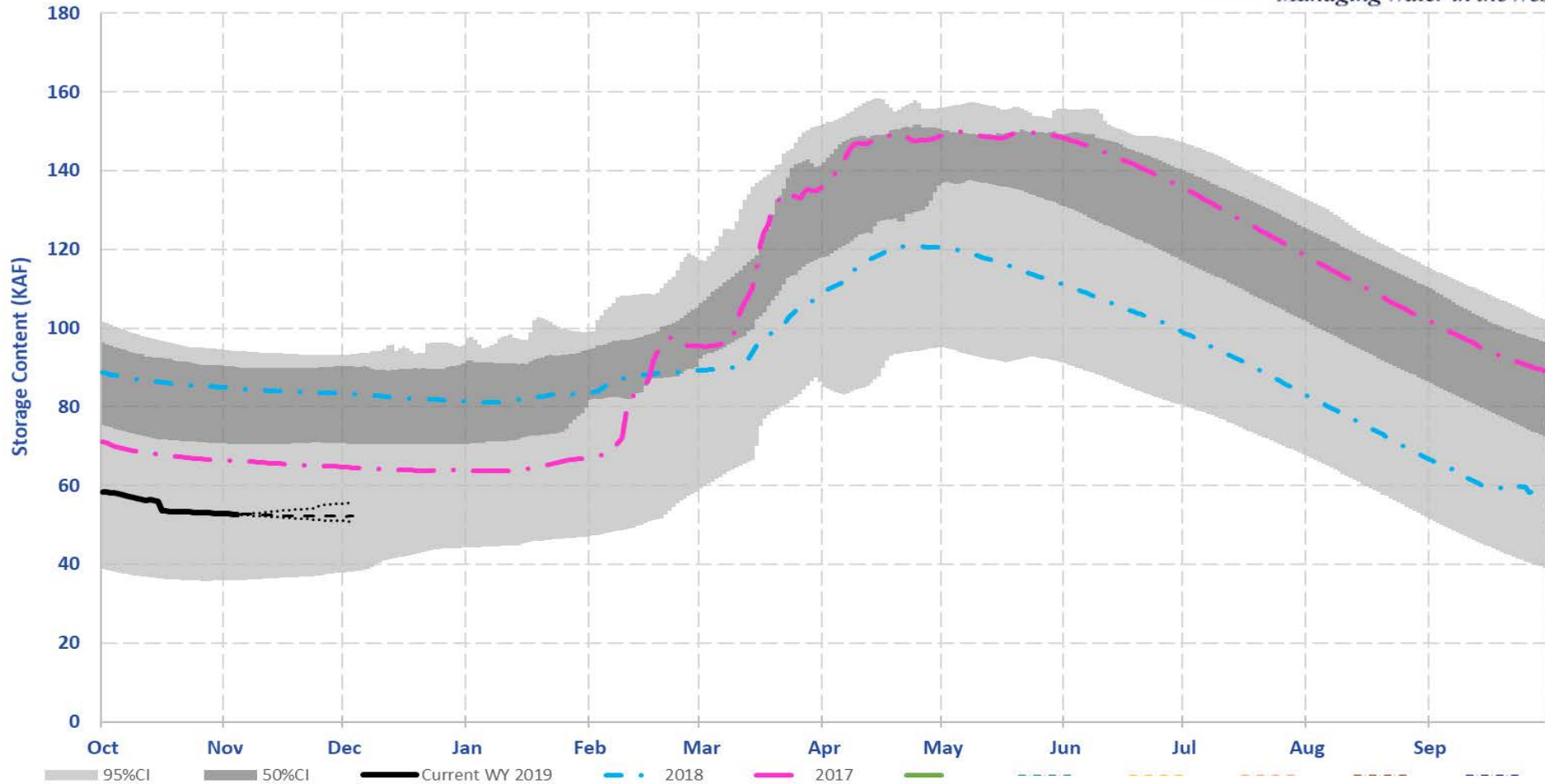


RECLAMATION

# Deschutes River Basin: Prineville

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PRV AF

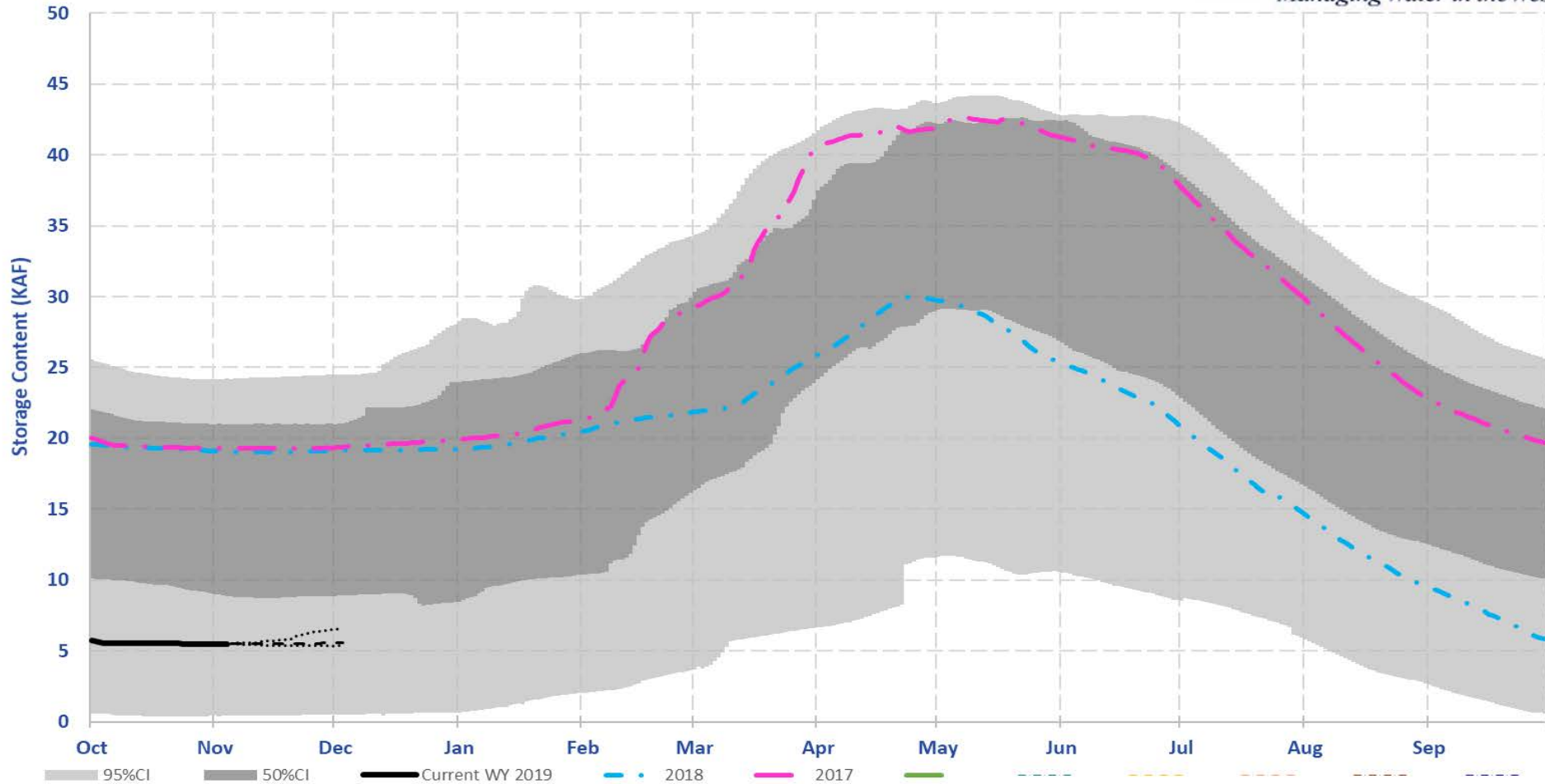


RECLAMATION

# Deschutes River Basin: Ochoco

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OCH AF

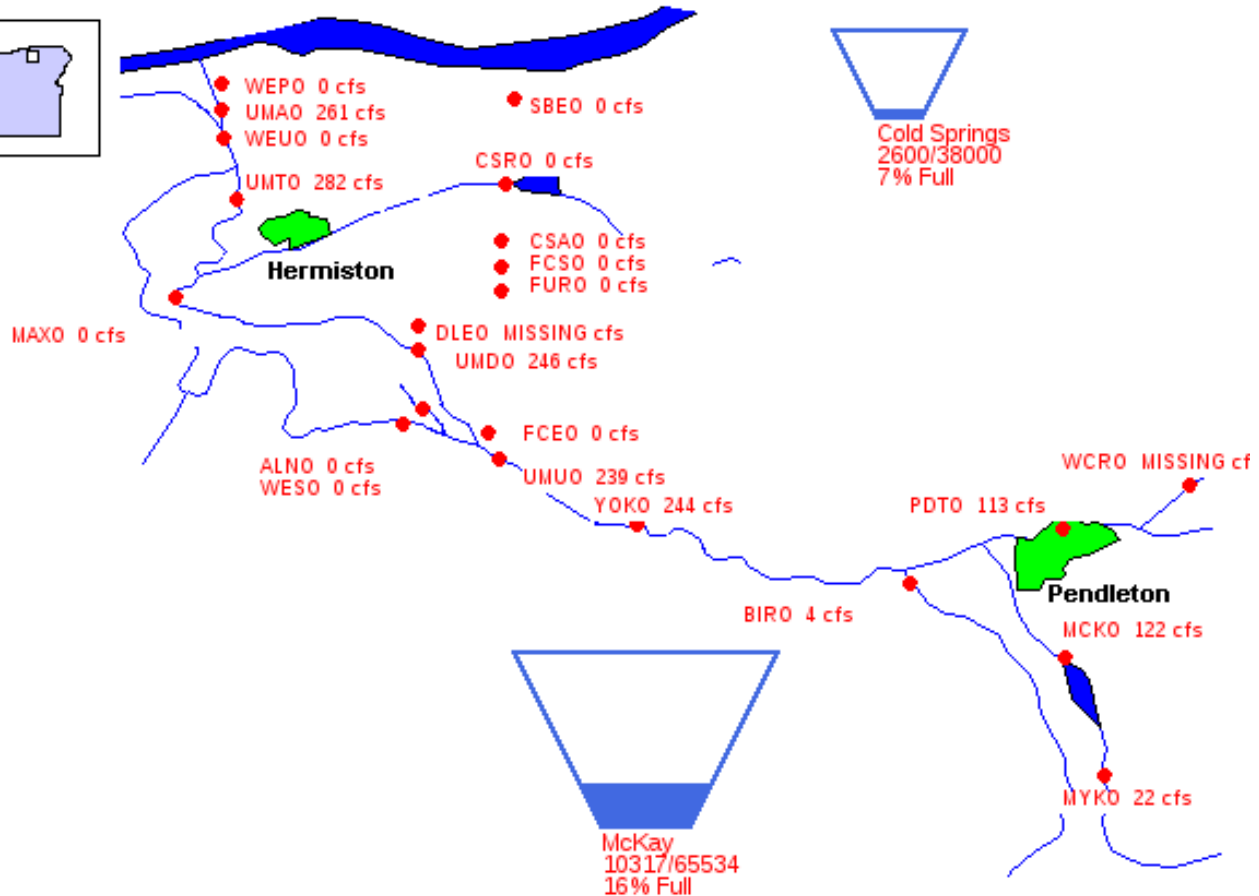
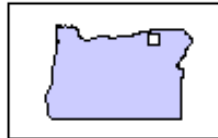


RECLAMATION



# Umatilla River Basin

11/05/2018

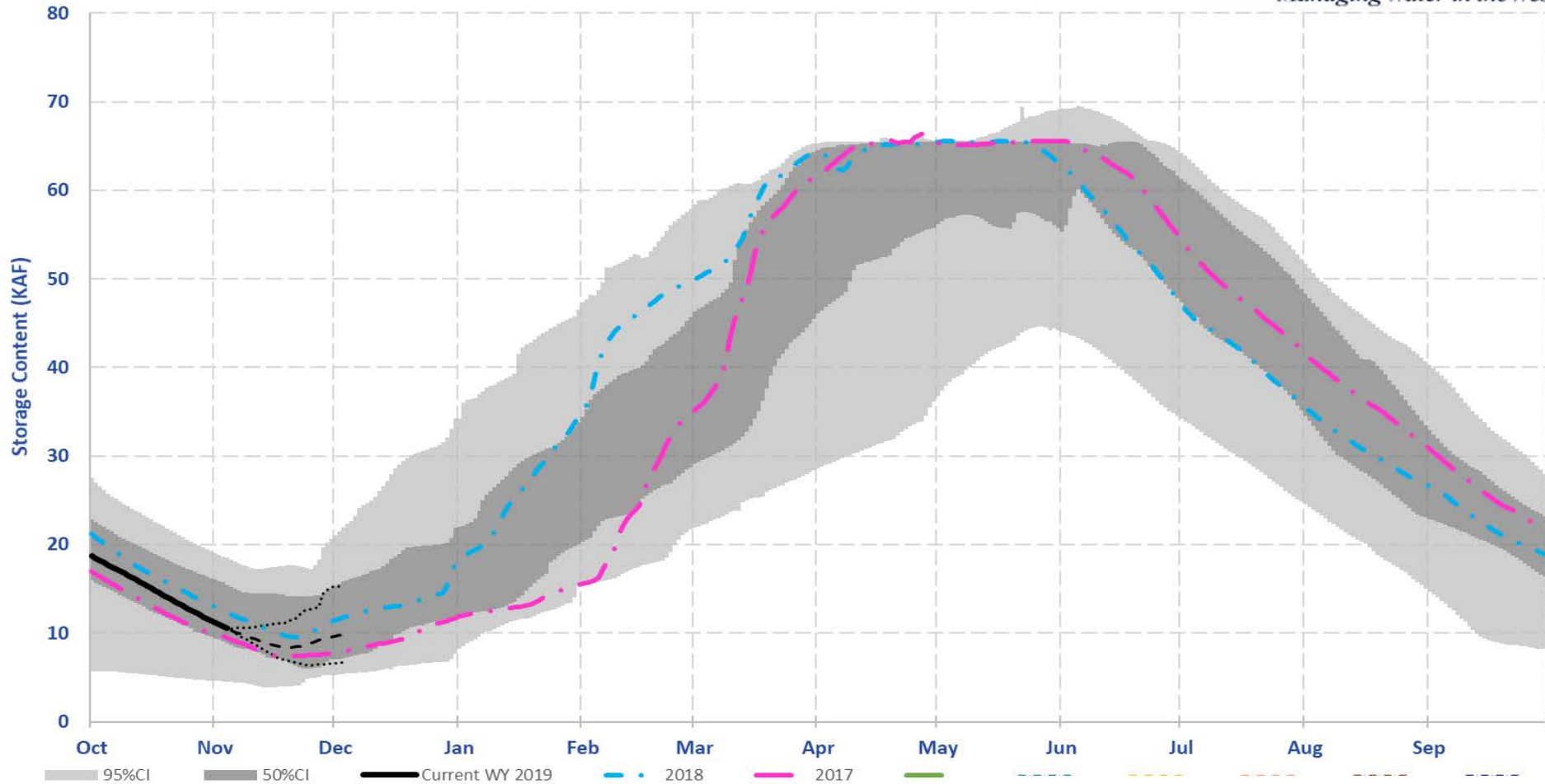


RECLAMATION

# Umatilla River Basin: McKay

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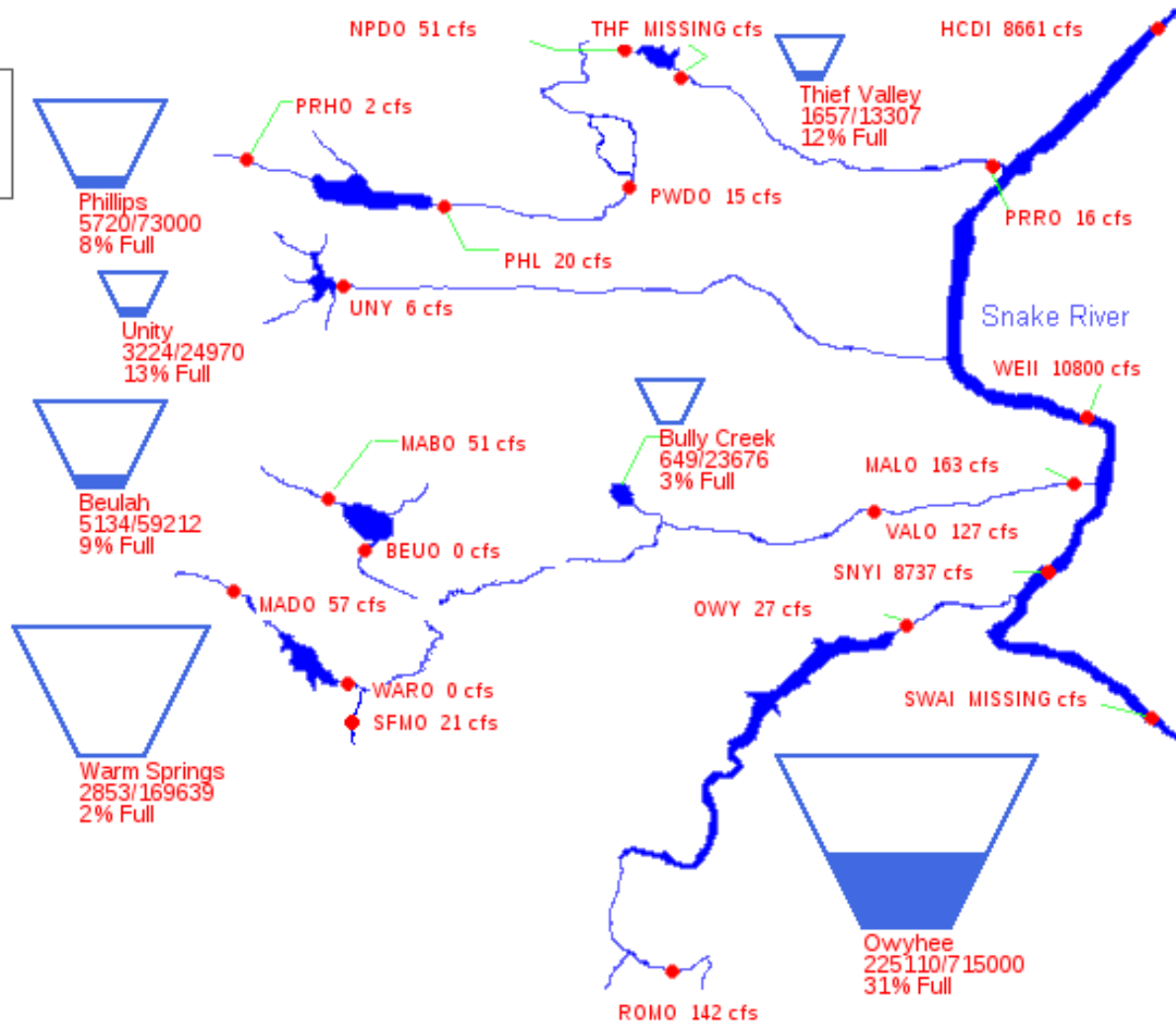
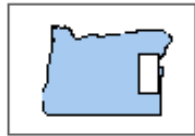
MCK AF



RECLAMATION

# Southeastern Oregon

11/05/2018

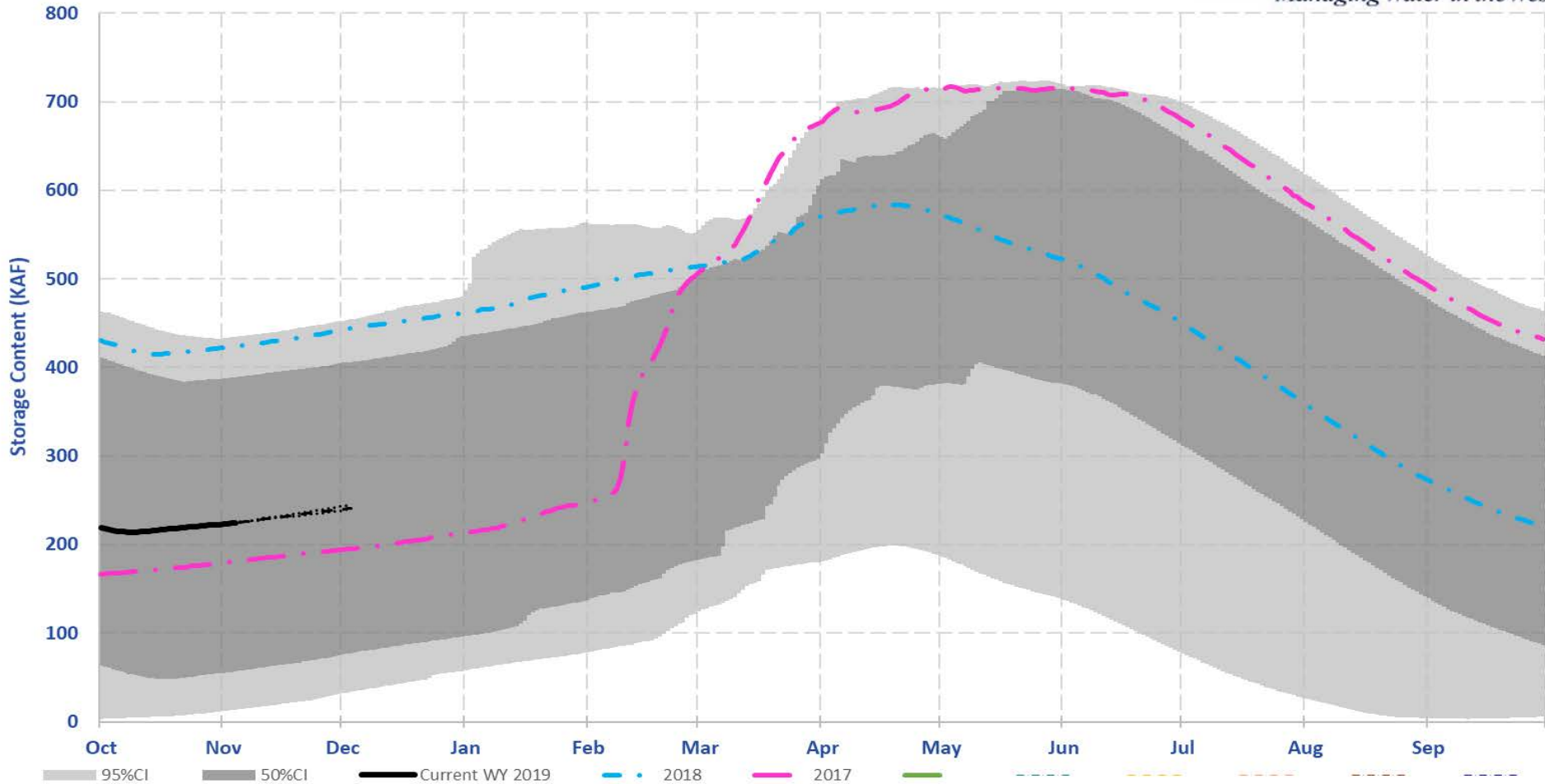


RECLAMATION

# Owyhee River Basin: Owyhee

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OWY AF

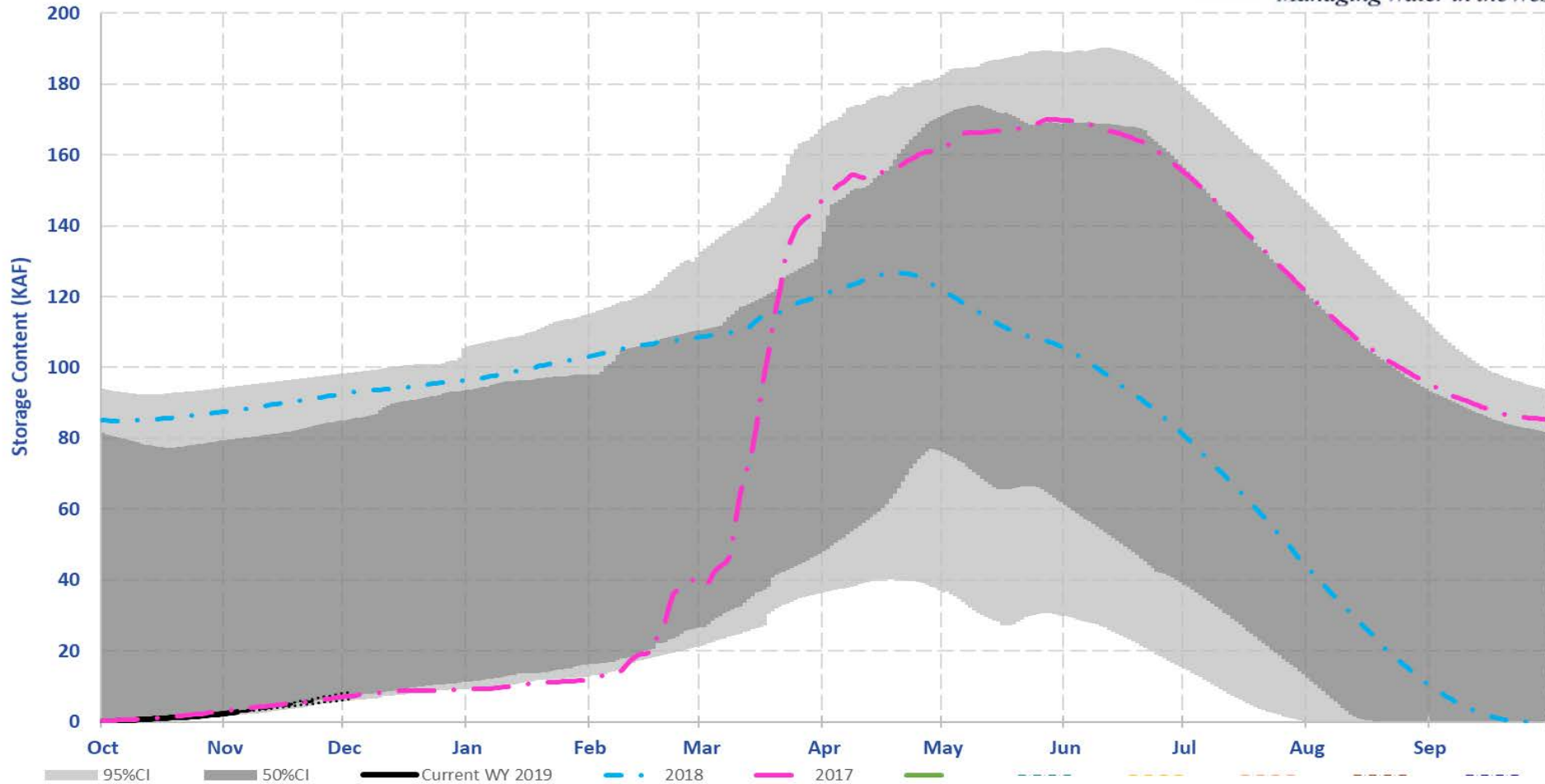


RECLAMATION

# Malheur River Basin: Warm Springs

RECLAMATION  
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WAR AF

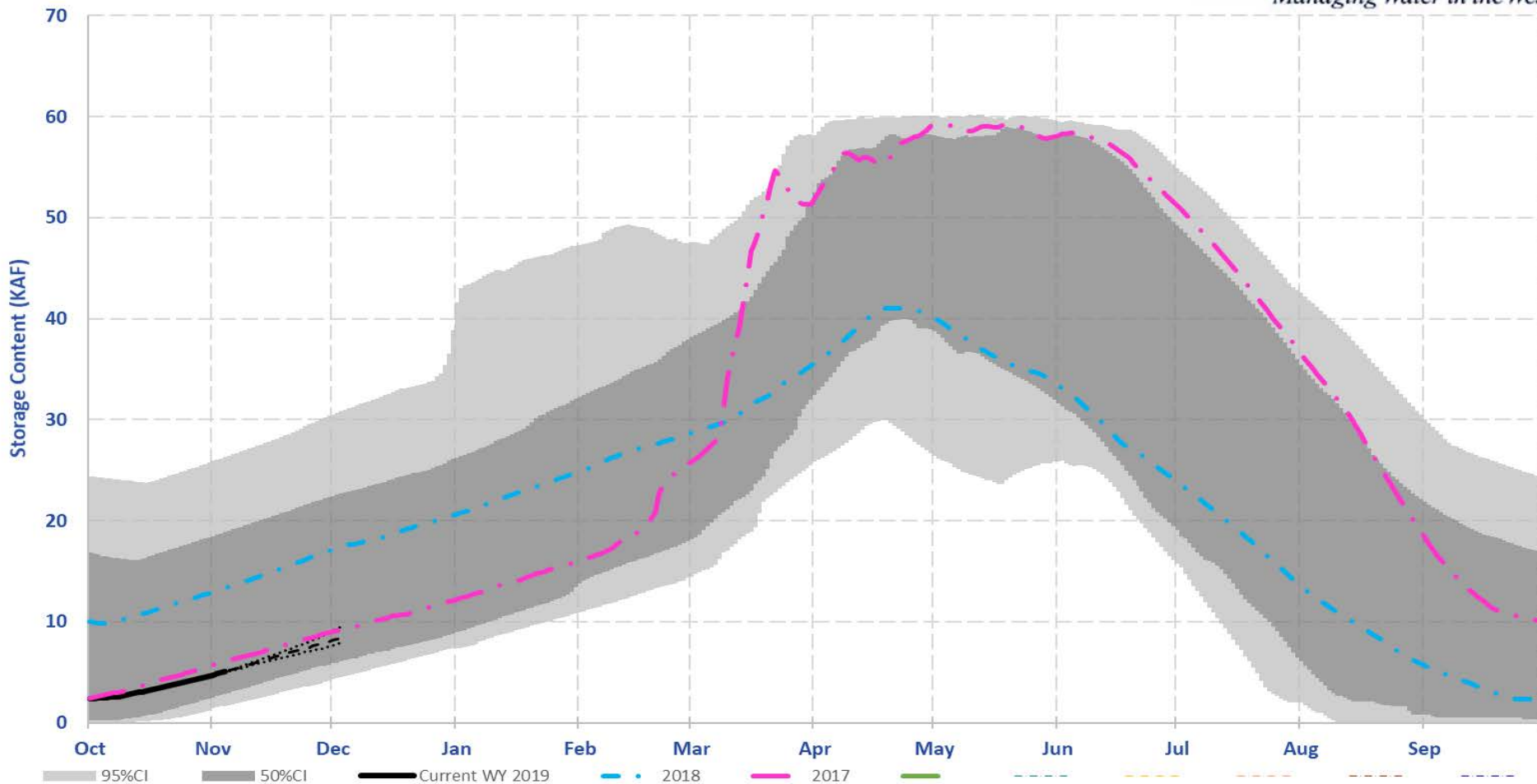


RECLAMATION

# Malheur River Basin: Beulah

RECLAMATION  
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BEU AF

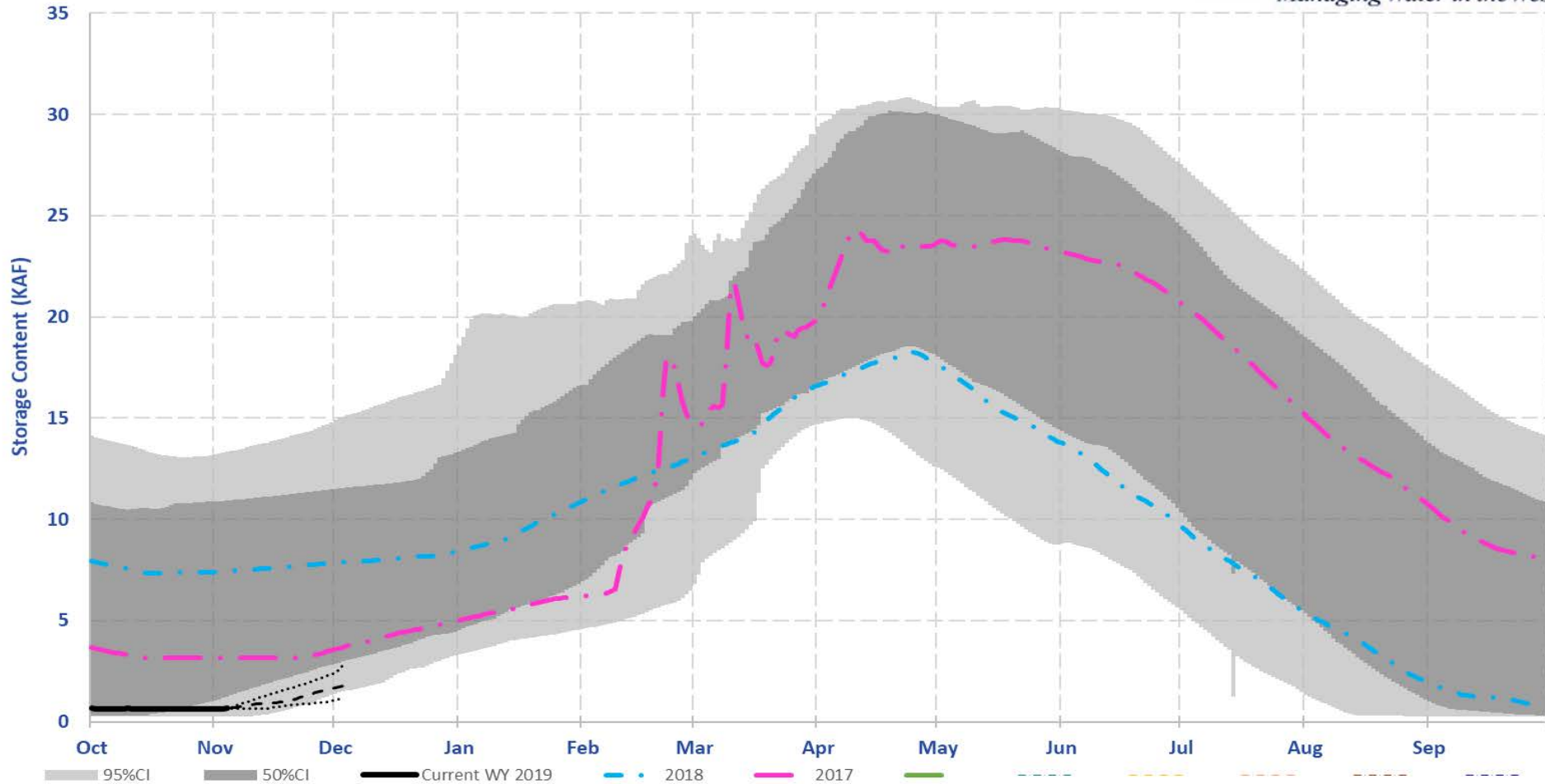


RECLAMATION

# Malheur River Basin: Bully Creek

RECLAMATION  
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BUL AF

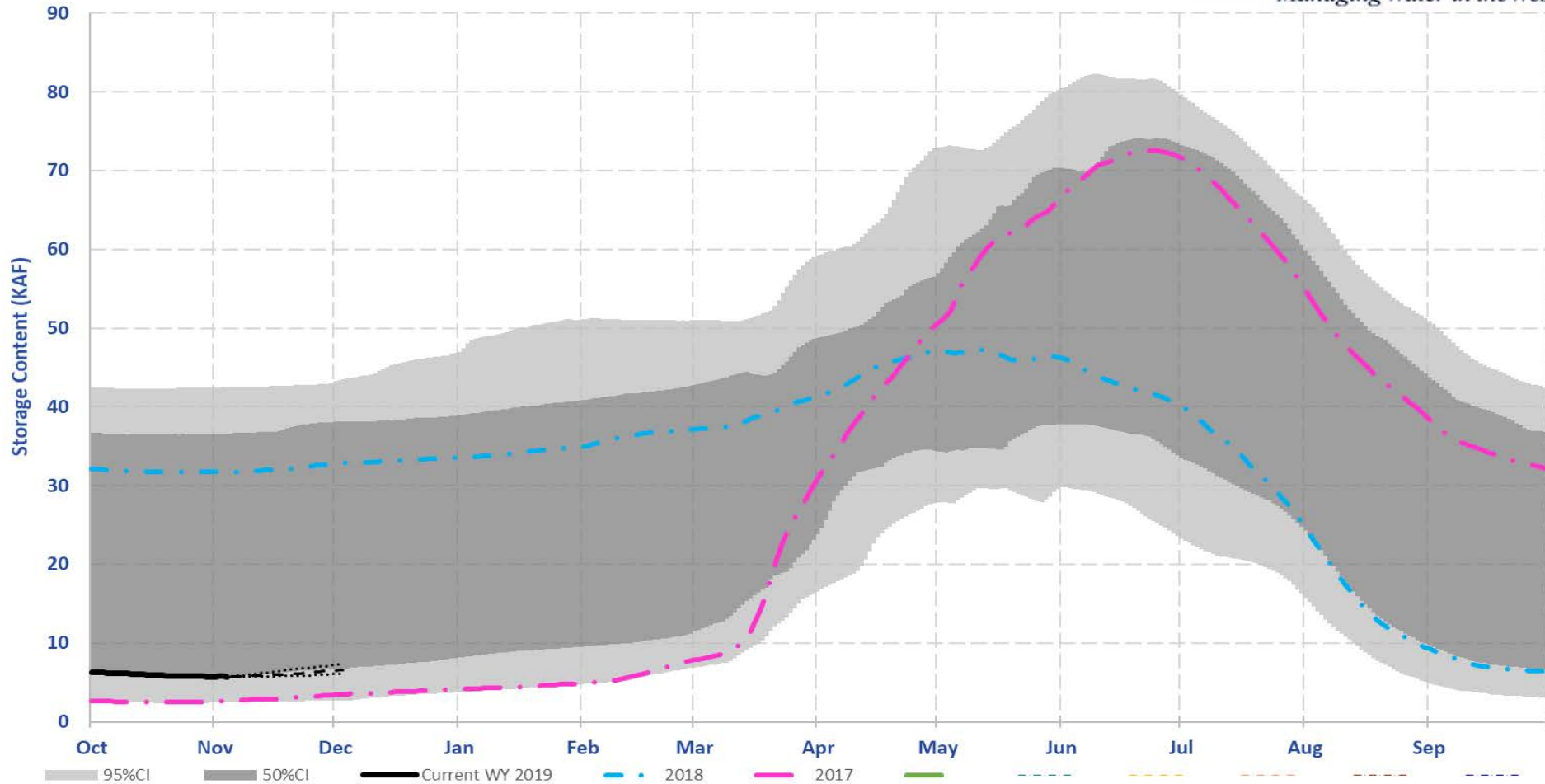


RECLAMATION

# Powder River Basin: Phillips

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PHL AF



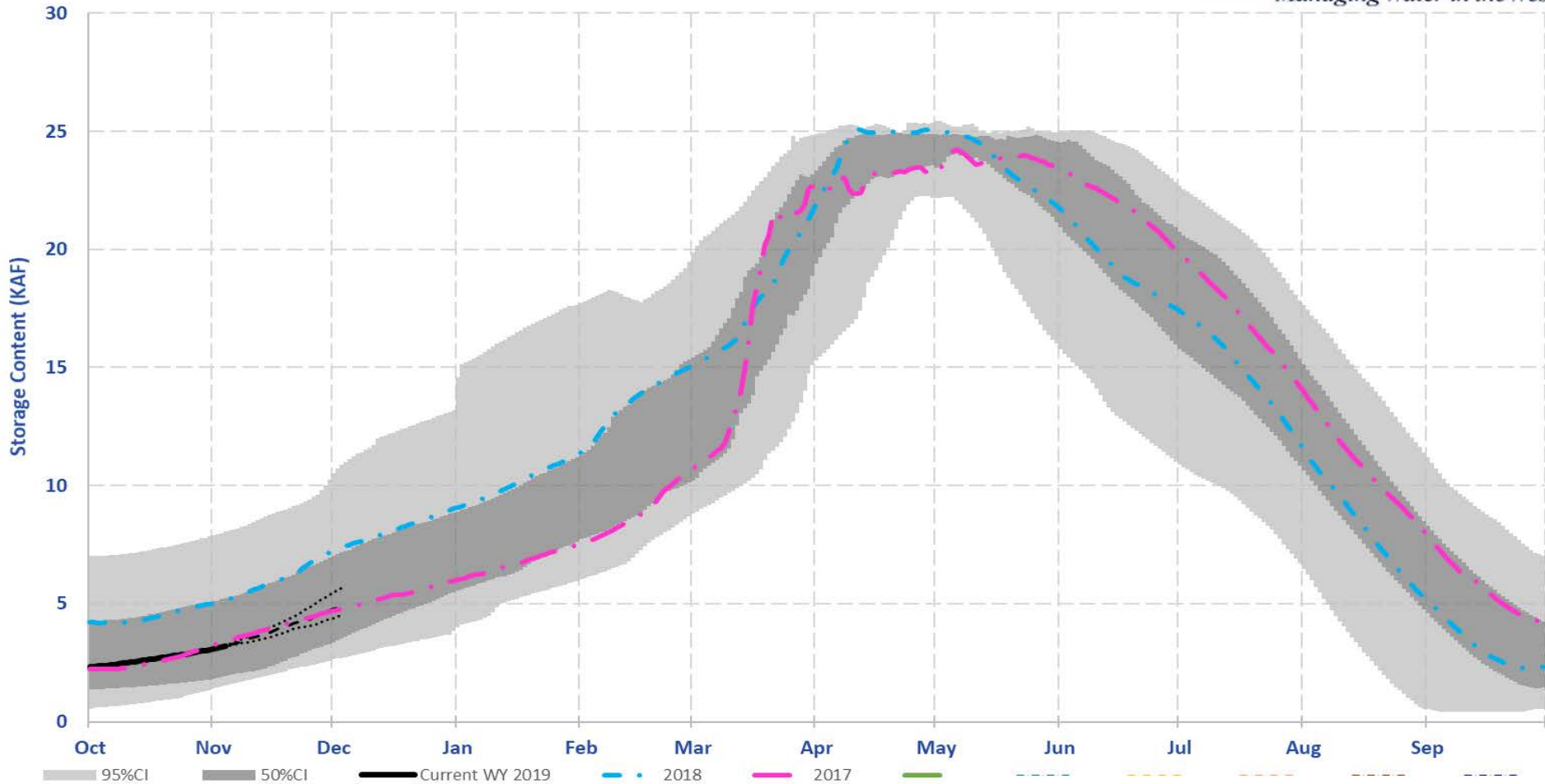
RECLAMATION



# Burnt River Basin: Unity

RECLAMATION  
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UNY AF



RECLAMATION

# Questions



RECLAMATION