

# Oregon Water Supply Availability Committee

May 9, 2017



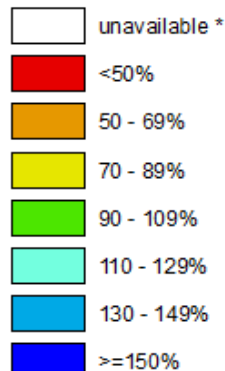
H. Scott Oviatt  
Snow Survey Supervisory Hydrologist  
USDA NRCS Snow Survey and Water  
Supply Forecasting Program  
[Scott.Oviatt@or.usda.gov](mailto:Scott.Oviatt@or.usda.gov)  
503-414-3271  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/>

# Statewide SNOTEL Snowpack is 141% of normal\*\*\*\*

## Oregon SNOTEL Current Snow Water Equivalent (SWE) % of Normal

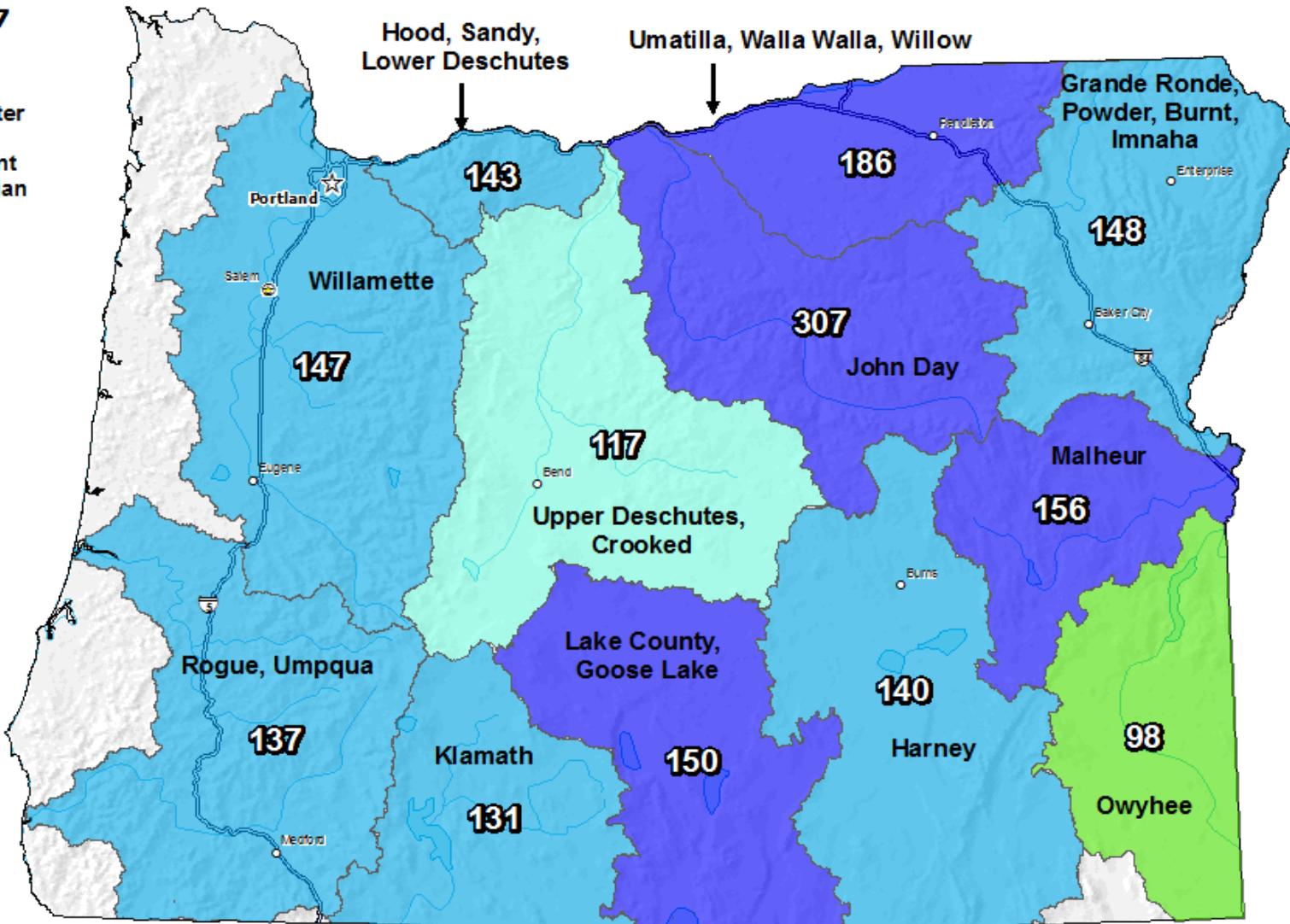
May 08, 2017

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



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

Provisional Data  
Subject to Revision



The snow water equivalent percent of normal represents the current snow water equivalent 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>

\*\*\*\*

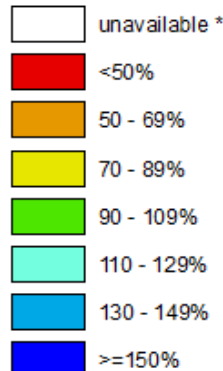
<b>Willamette</b>	<b>13/23 SNOTEL sites with measurable SWE (1 site with SWE below 4000')</b>
<b>Rogue, Umpqua</b>	<b>8/12 SNOTEL sites with measurable SWE (0 sites with SWE below 5000')</b>
<b>Hood, Sandy, Lower Deschutes</b>	<b>7/8 SNOTEL sites with measurable SWE (1 site with no SWE – 2690')</b>
<b>Upper Deschutes, Crooked</b>	<b>8/14 SNOTEL sites with measurable SWE (4 sites with SWE below 4000')</b>
<b>Klamath</b>	<b>10/18 SNOTEL sites with measurable SWE (All sites with SWE above 5000')</b>
<b>Lake County, Goose Lake</b>	<b>4/9 SNOTEL sites with measurable SWE (All sites with SWE above 6000')</b>
<b>Umatilla, Walla Walla, Willow</b>	<b>4/8 SNOTEL sites with measurable SWE (All sites with SWE above 5000')</b>
<b>John Day</b>	<b>5/13 SNOTEL sites with measurable SWE (All sites with SWE above 5000')</b>
<b>Harney</b>	<b>3/9 SNOTEL sites with measurable SWE (All sites with SWE above 5000')</b>
<b>Grande Ronde, Powder, Burnt, Imnaha</b>	<b>11/17 SNOTEL sites with measurable SWE (All sites with SWE above 5000')</b>
<b>Malheur</b>	<b>1/3 SNOTEL sites with measurable SWE (Site with SWE above 5000')</b>
<b>Owyhee</b>	<b>2/8 SNOTEL sites with measurable SWE (Both sites with SWE above 7000')</b>

# Statewide SNOTEL Snowpack is 129% of normal

## Oregon SNOTEL Current Snow Water Equivalent (SWE) % of Normal

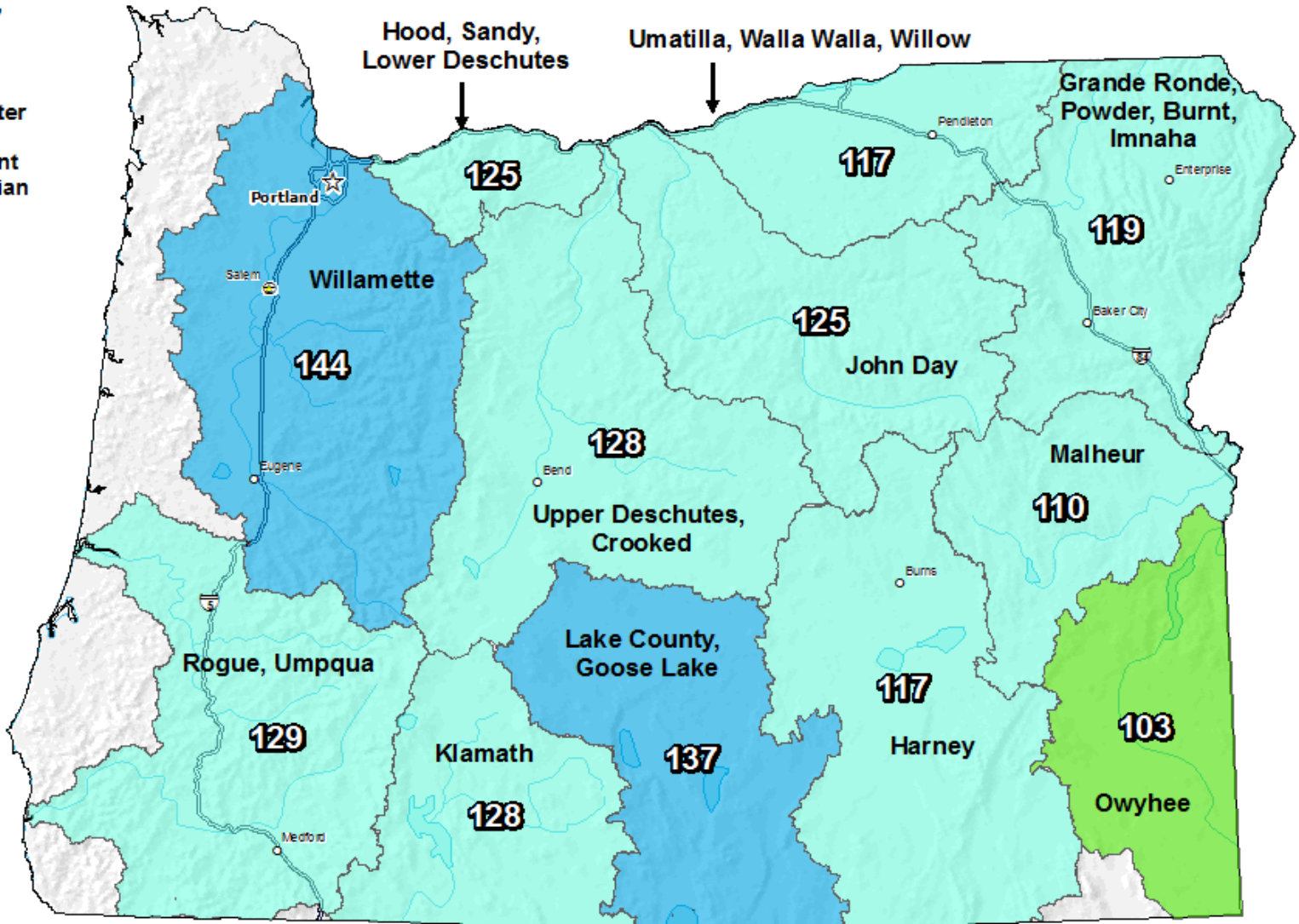
Apr 11, 2017

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median

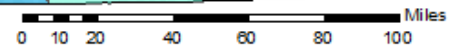


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Provisional Data  
Subject to Revision



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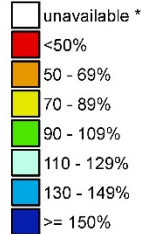
Prepared by:  
USDA/NRCS National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# West-Wide Snowpack – May 8, 2017

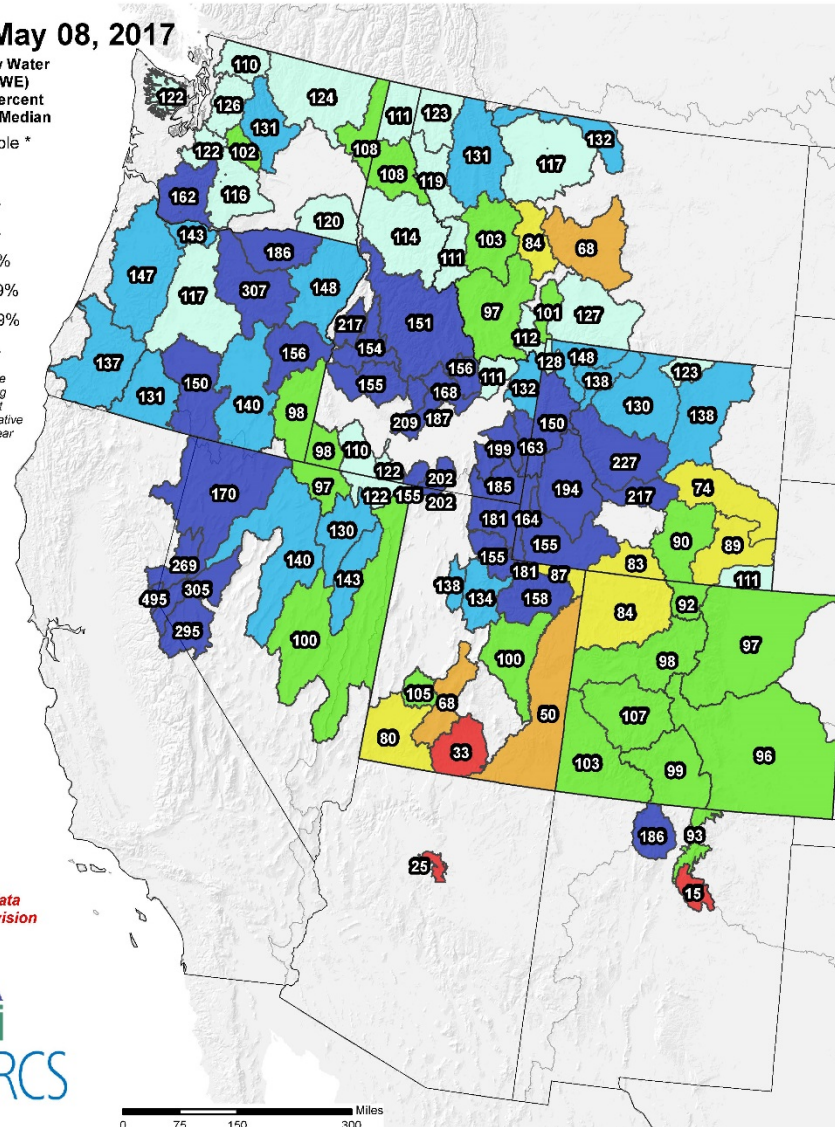
## Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

May 08, 2017

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



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



Provisional data  
subject to revision



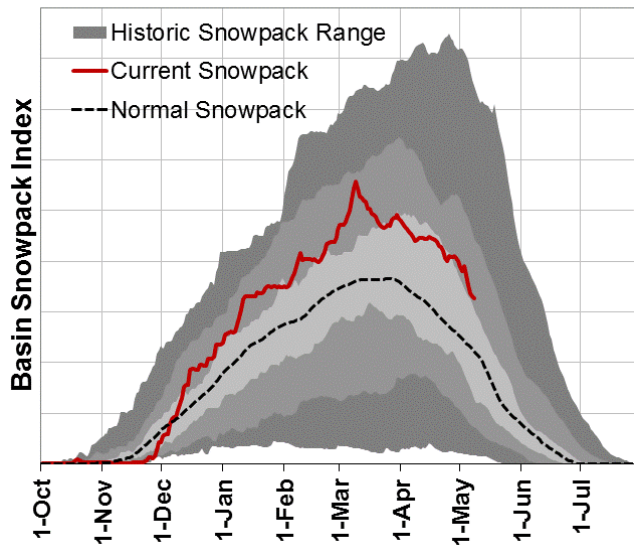
0 75 150 300 Miles

The snow water equivalent percent of normal represents the current snow water equivalent 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).

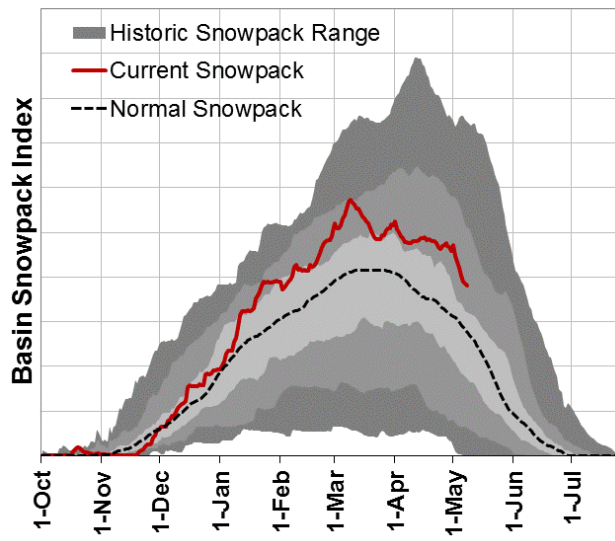
Prepared by:  
USDA/NRCS National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# Water Year 2017 – May 8<sup>th</sup>

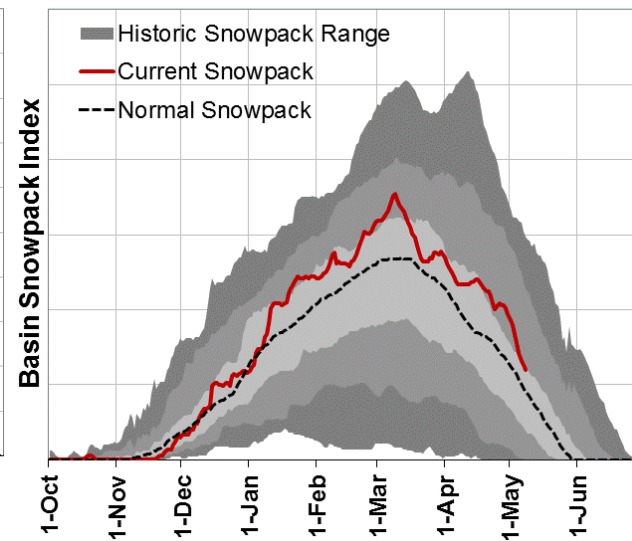
## Willamette



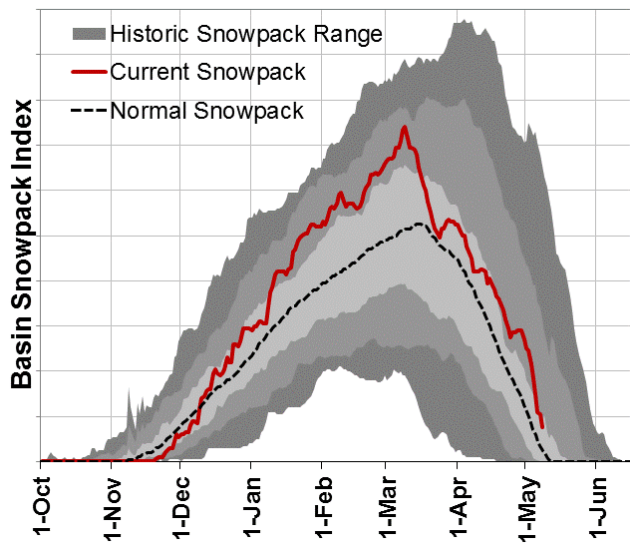
## Rogue/Umpqua



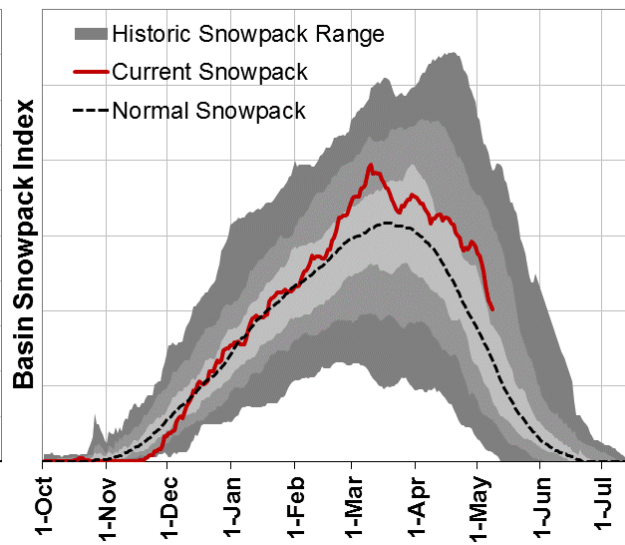
## Klamath



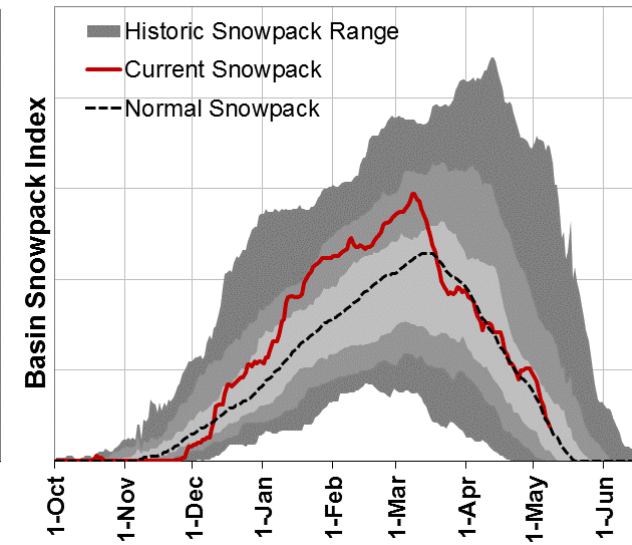
## John Day



## Grande Ronde/Powder/Burnt



## Owyhee/Malheur

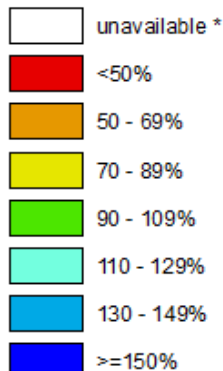


# Statewide SNOTEL Precipitation is 131% of normal

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

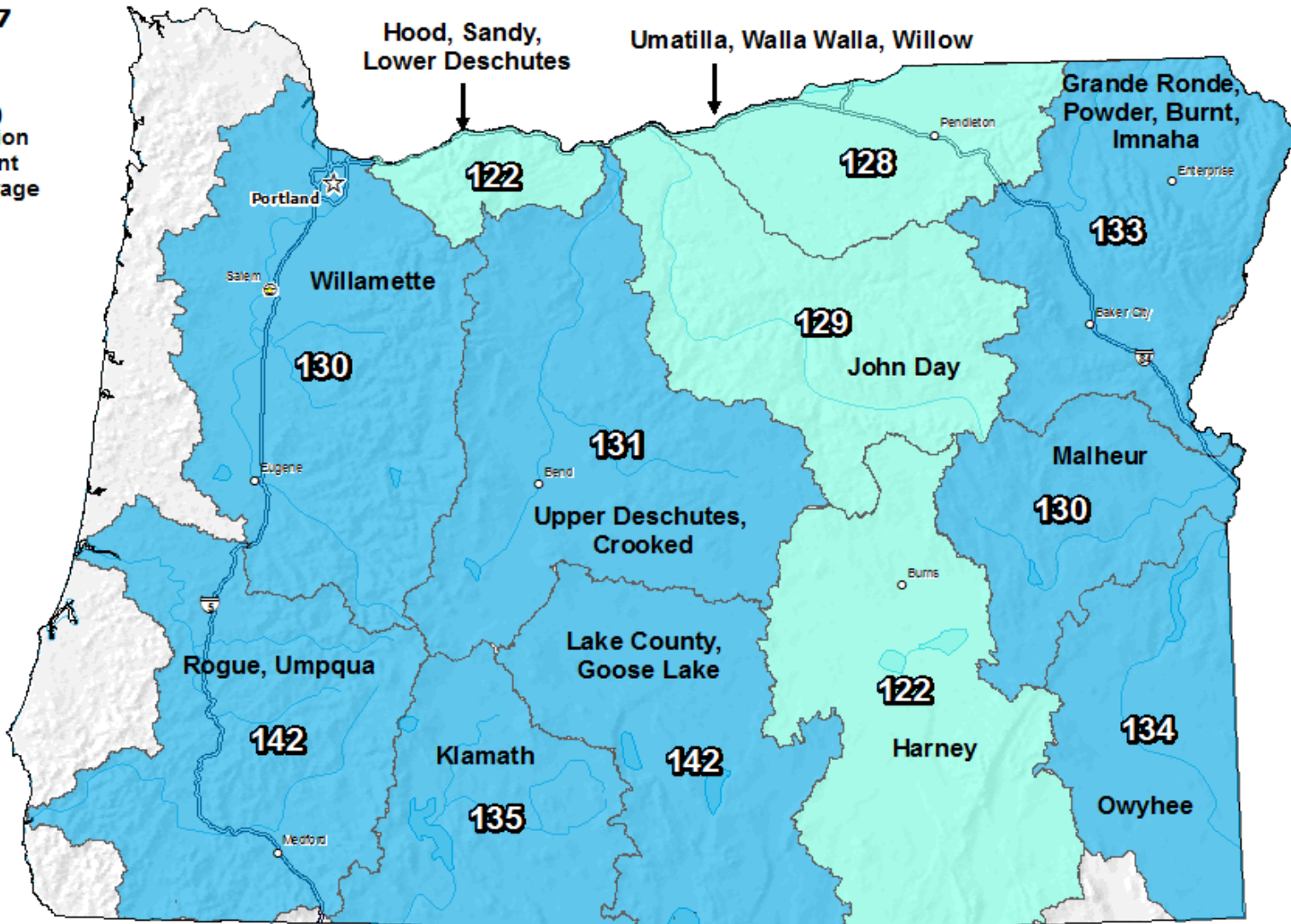
May 08, 2017

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

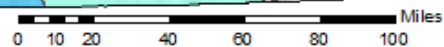


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Provisional Data  
Subject to Revision



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).



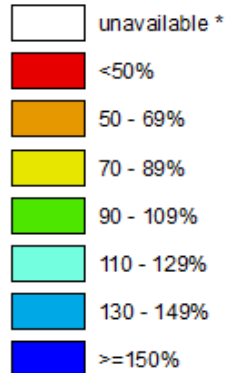
Prepared by:  
USDA/NRCS National Water and Climate Center  
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# Statewide SNOTEL Precipitation is 131% of normal

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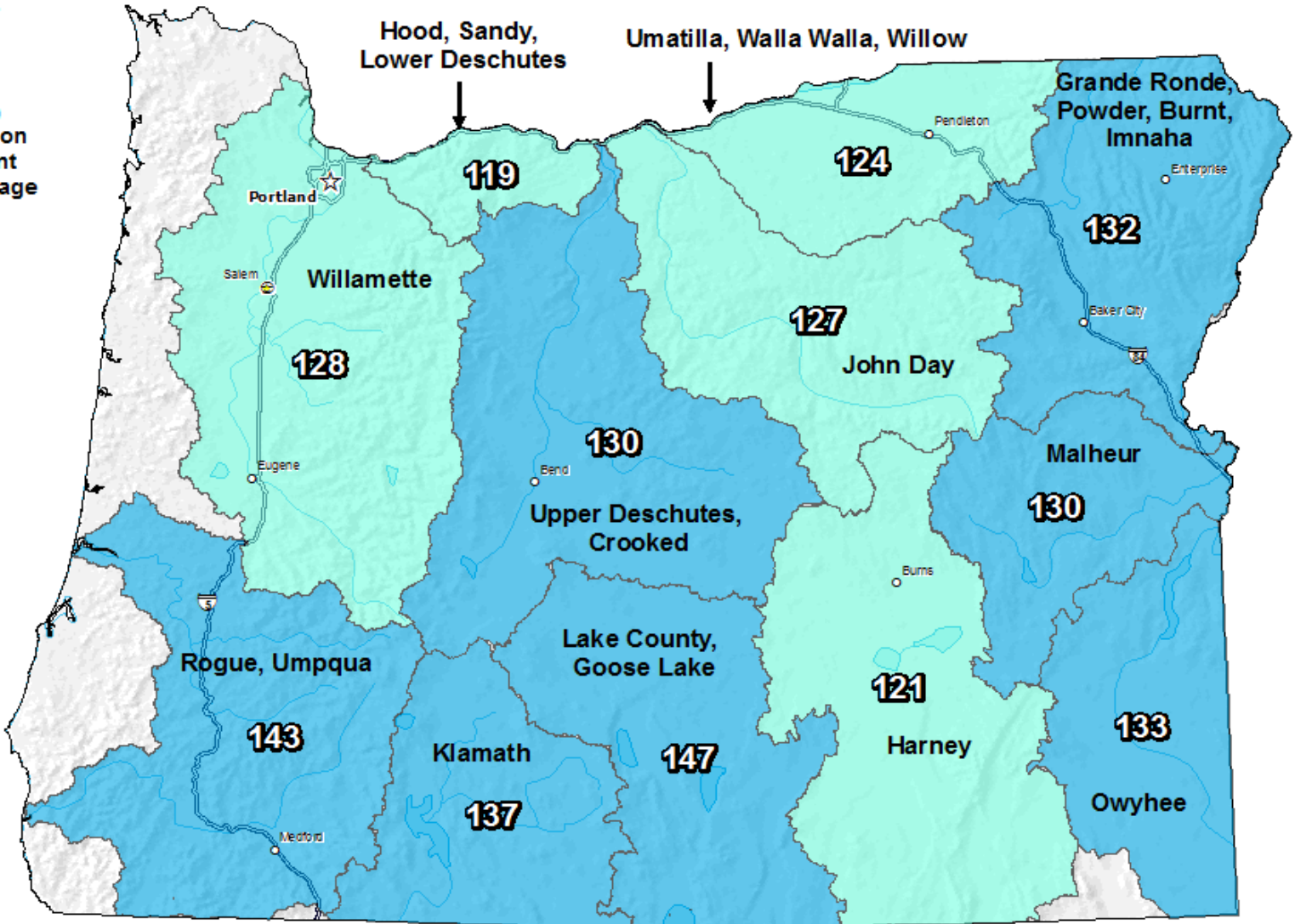
Apr 11, 2017

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

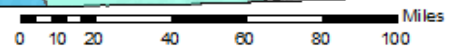


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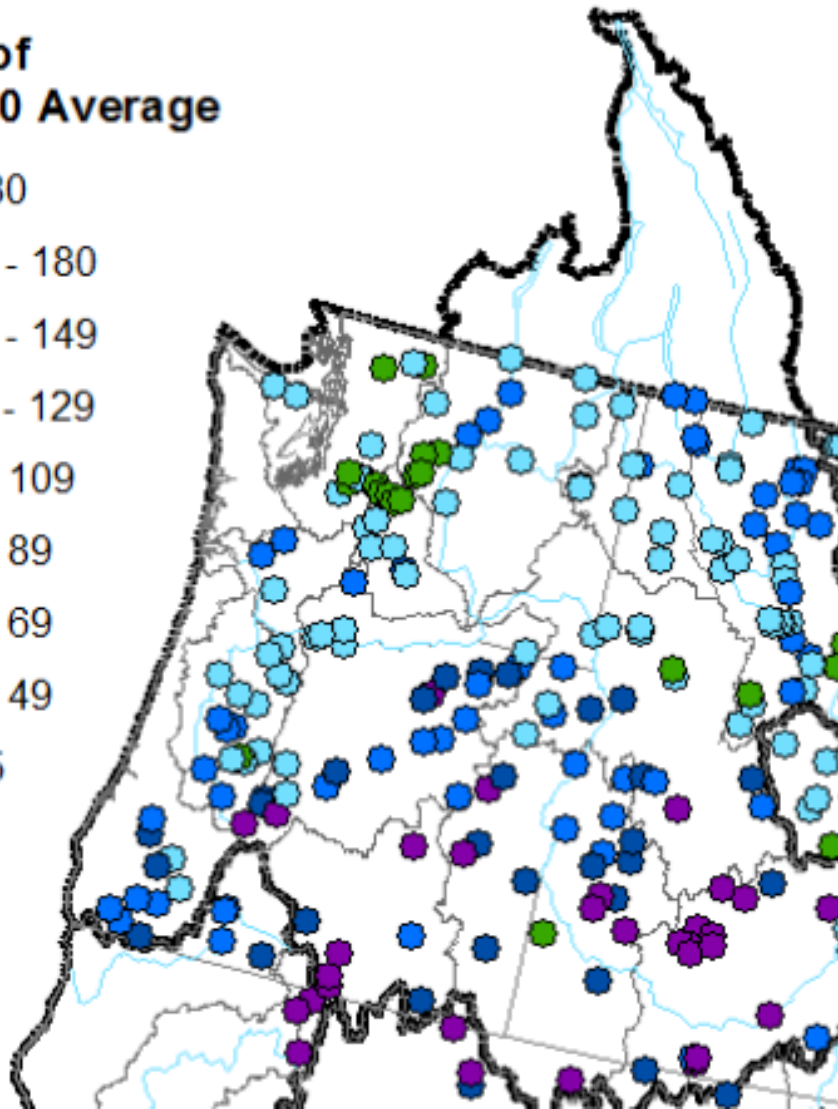


Prepared by:  
USDA/NRCS National Water and Climate Center  
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# Spring and Summer Streamflow Forecasts as of May 1, 2017

Percent of  
1981-2010 Average

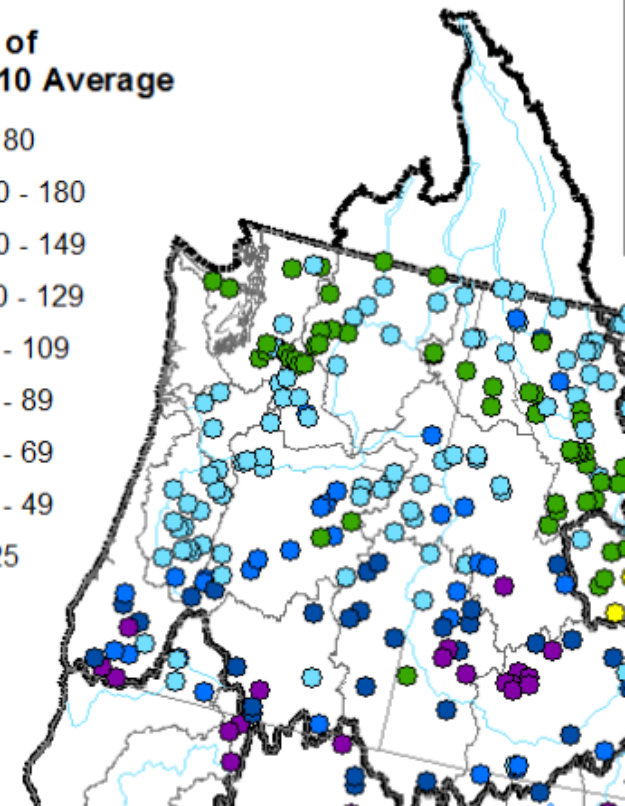
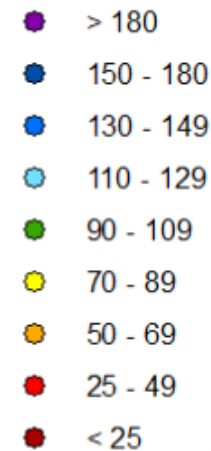


## May thru September Streamflow Forecasts:

- Above normal to well above normal statewide

# Spring and Summer Streamflow Forecasts as of April 1, 2017

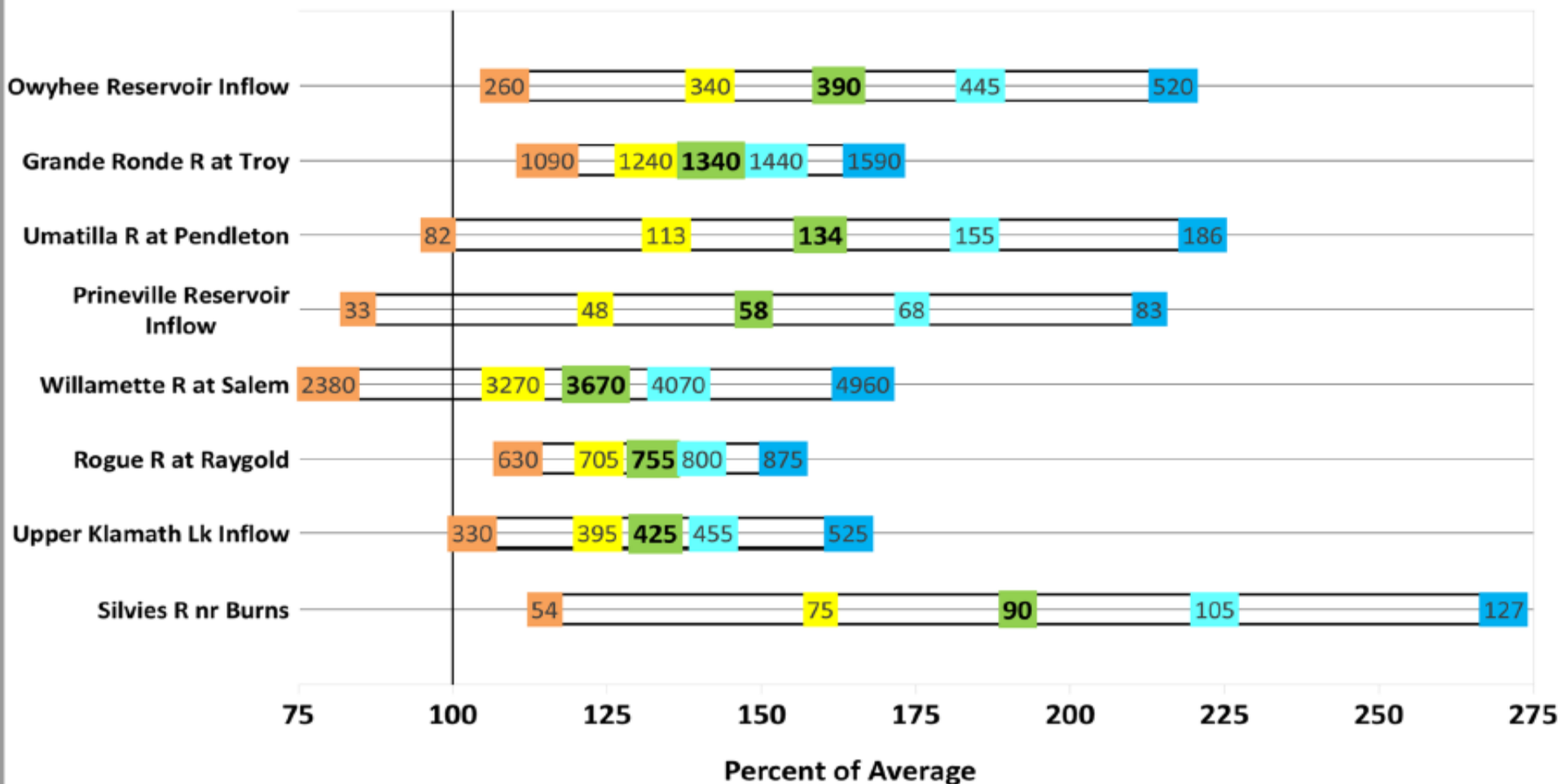
Percent of  
1981-2010 Average



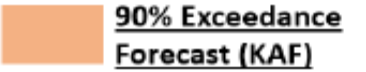
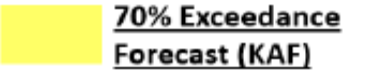
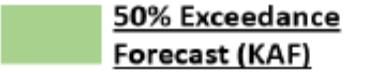
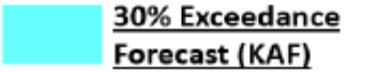
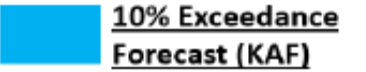
May 1, 2017

# Summary of Streamflow Forecasts across Oregon

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



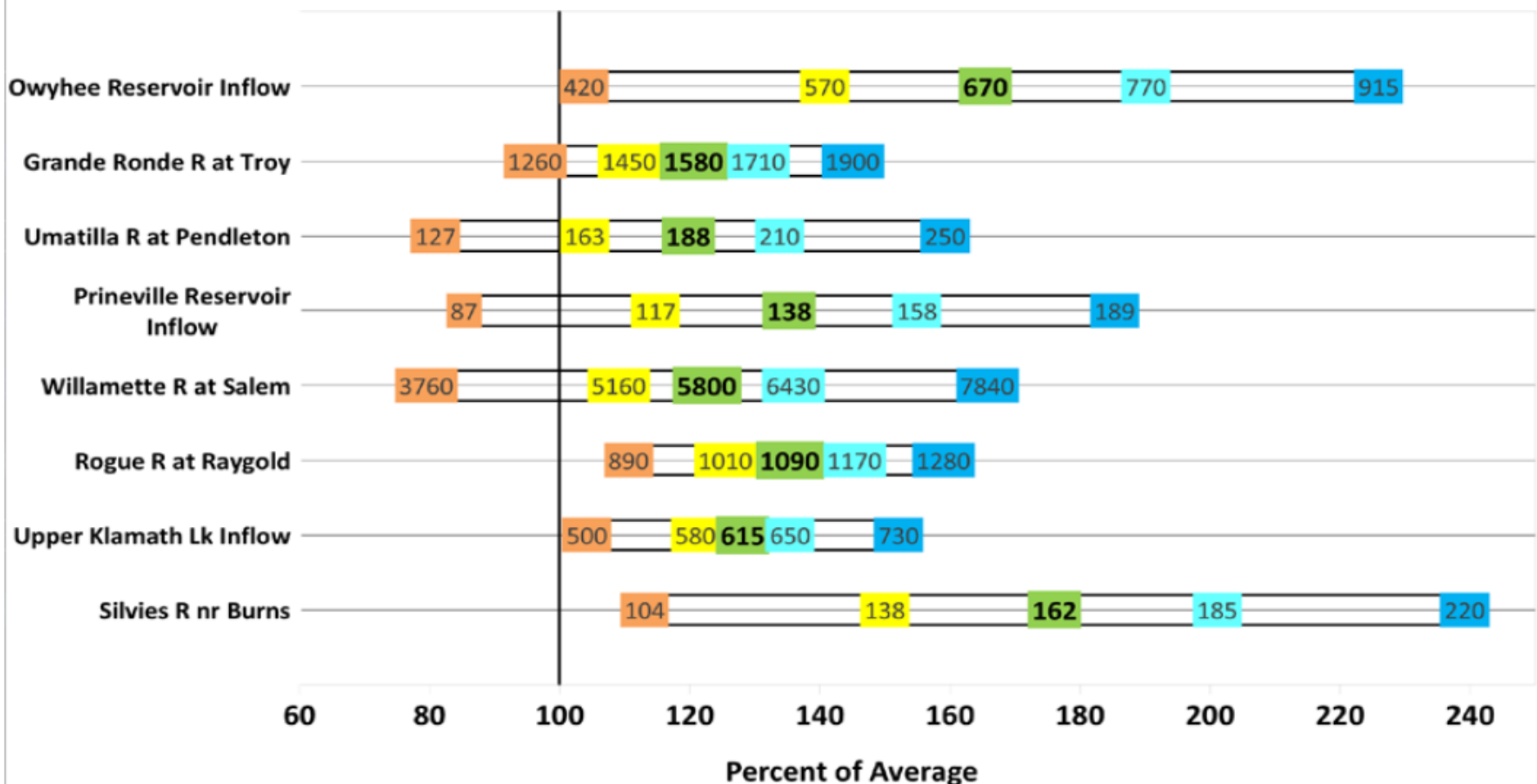
**Legend:** ←-----Drier-----**Future Conditions**-----Wetter-----→

 <b>90% Exceedance Forecast (KAF)</b> There is a 90% chance that flows will exceed this volume.	 <b>70% Exceedance Forecast (KAF)</b> There is a 70% chance that flows will exceed this volume.	 <b>50% Exceedance Forecast (KAF)</b> There is a 50% chance that flows will exceed this volume.	 <b>30% Exceedance Forecast (KAF)</b> There is a 30% chance that flows will exceed this volume.	 <b>10% Exceedance Forecast (KAF)</b> There is a 10% chance that flows will exceed this volume.
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April 1, 2017

# Summary of Streamflow Forecasts across Oregon

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



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

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# Thank you!

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

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# Oregon Water Supply Availability Committee

May 9, 2017



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Supply Forecasting Program  
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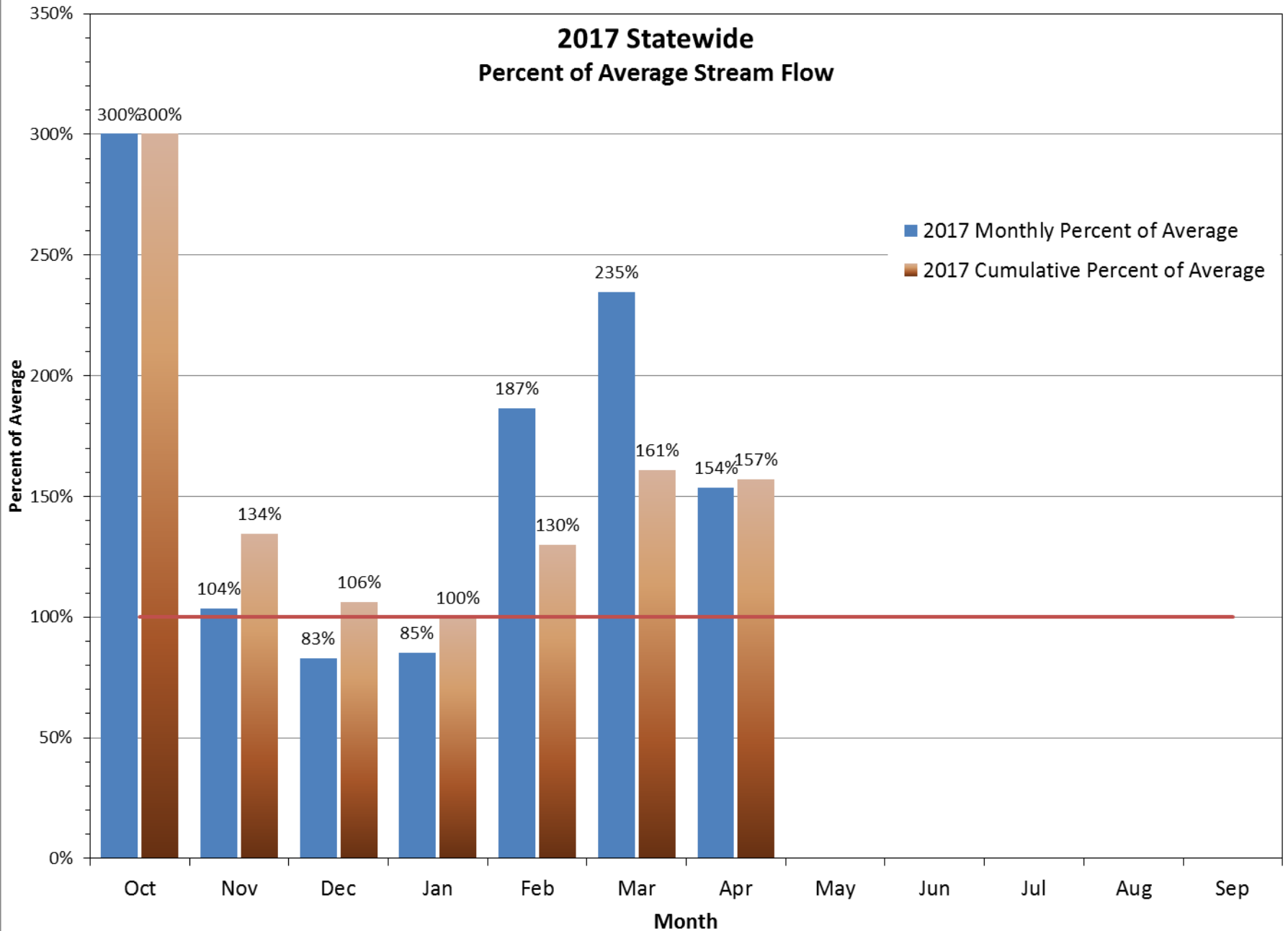
Surface Water Conditions Report

# Water Supply Availability Committee

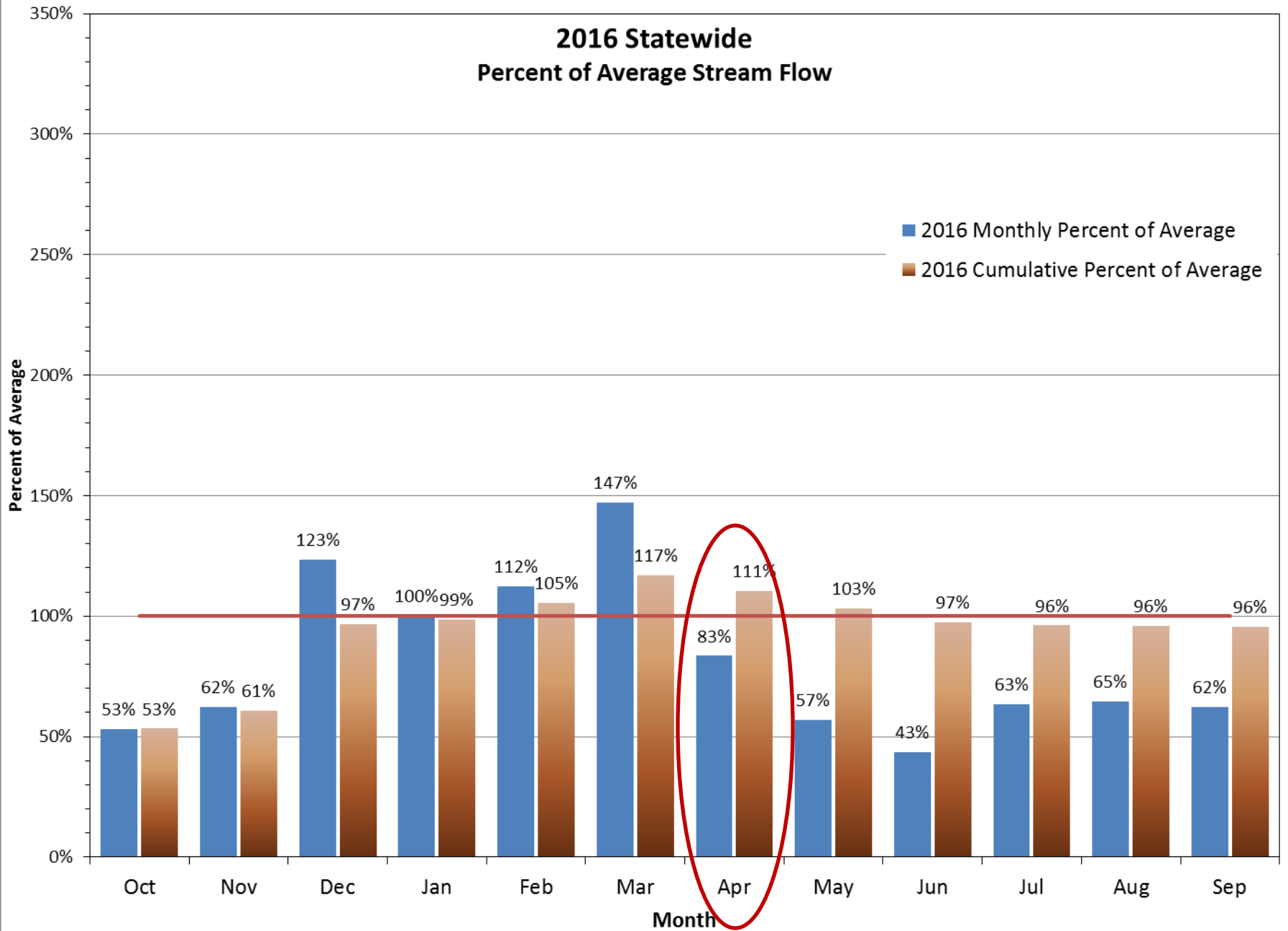


Ken Stahr  
Oregon Water Resources  
Department  
May 9, 2017

## 2017 Statewide Percent of Average Stream Flow



## 2016 Statewide Percent of Average Stream Flow






# Percent of Average Streamflow Month of April, 2017

## Percent of Average Streamflow

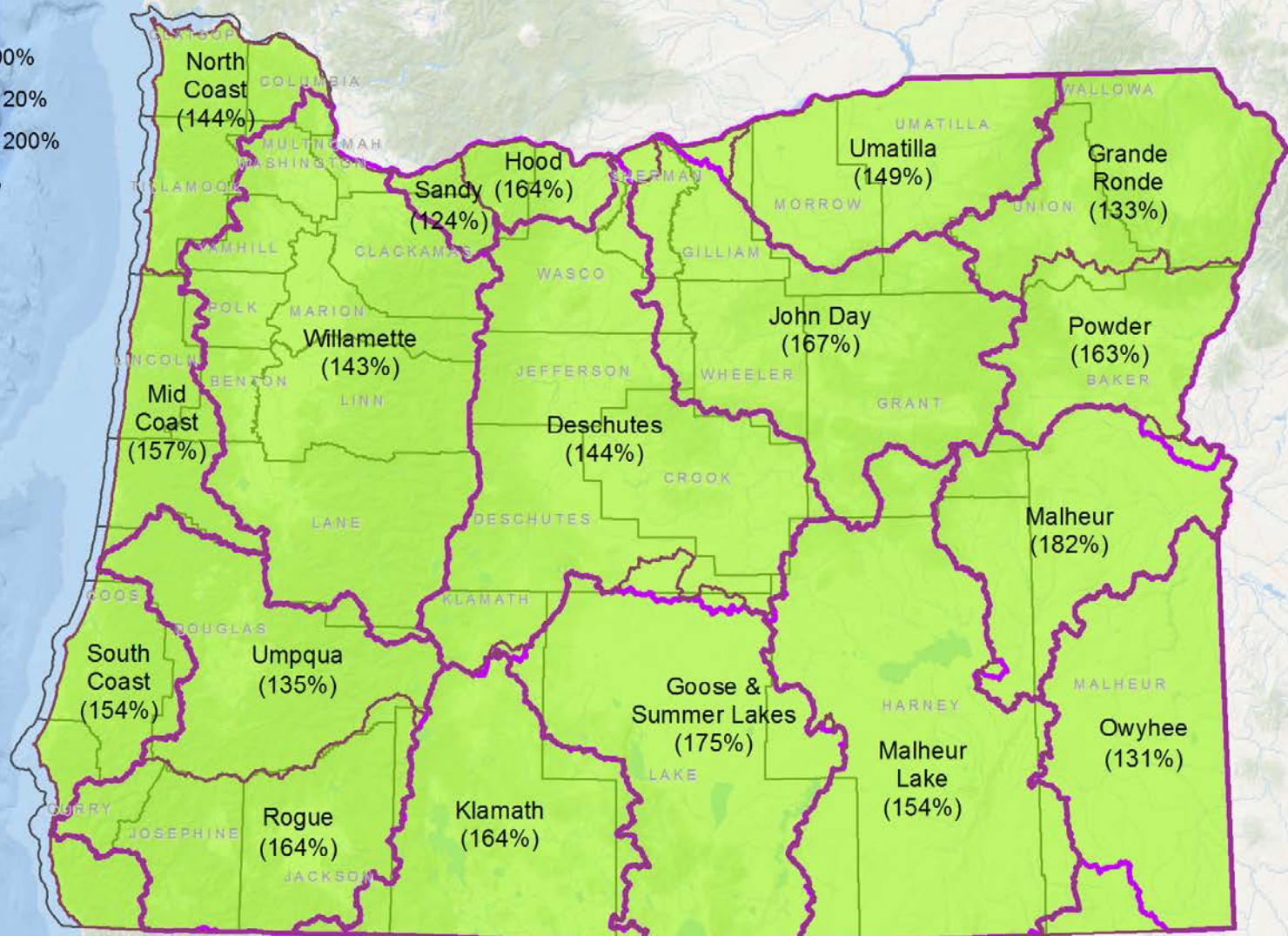
### WRD Basin

-  < 85%
-  85% - 90%
-  91% - 120%
-  121% - 200%
-  > 200%

### NRCS Basin



### County

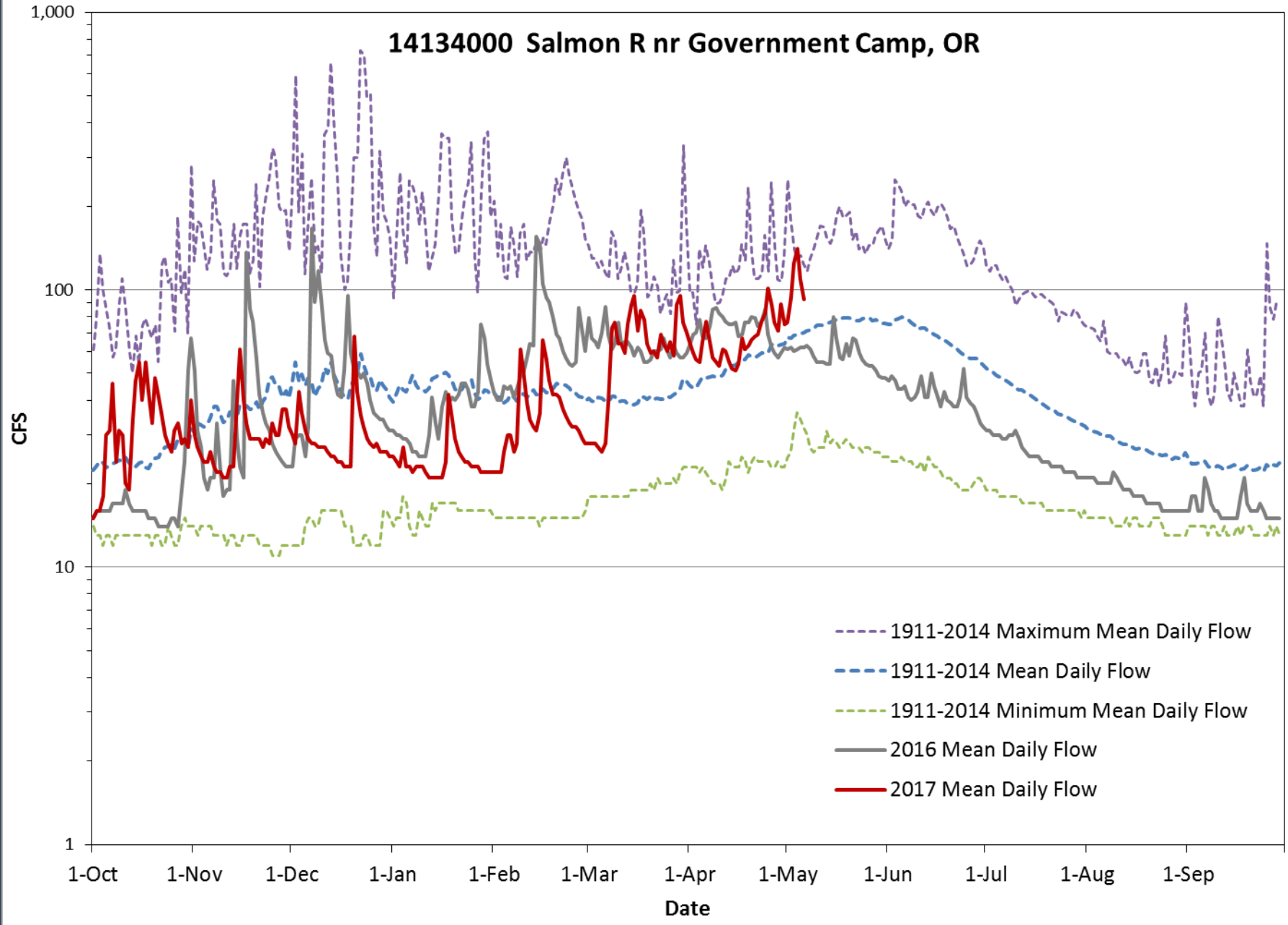


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

<b>Basin</b>	<b>Water Year % of average thru April</b>	<b>% of average for April</b>	<b>% of average for 04/30/2017</b>	<b># of data points</b>
<b>North Coast</b>	154%	144%	193%	4
<b>Willamette</b>	144%	145%	206%	11
<b>Sandy</b>	107%	124%	167%	3
<b>Hood</b>	113%	164%	181%	3
<b>Deschutes</b>	136%	143%	134%	9
<b>John Day</b>	175%	174%	170%	9
<b>Umatilla</b>	139%	150%	198%	7
<b>Grande Ronde</b>	146%	133%	103%	4
<b>Powder</b>	161%	155%	95%	3
<b>Malheur</b>	200%	182%	146%	2
<b>Owyhee</b>	164%	131%	205%	1
<b>Malheur Lake</b>	165%	154%	143%	3
<b>Goose &amp; Summer Lakes</b>	215%	176%	132%	5
<b>Klamath</b>	156%	159%	129%	5
<b>Rogue</b>	183%	167%	168%	7
<b>Umpqua</b>	153%	135%	179%	4
<b>South Coast</b>	170%	172%	157%	2
<b>Mid Coast</b>	147%	157%	217%	5
<b>West Side</b>	<b>151%</b>	<b>149%</b>	<b>184%</b>	<b>36</b>
<b>East Side</b>	<b>161%</b>	<b>156%</b>	<b>149%</b>	<b>51</b>
<b>State</b>	<b>157%</b>	<b>154%</b>	<b>162%</b>	<b>87</b>

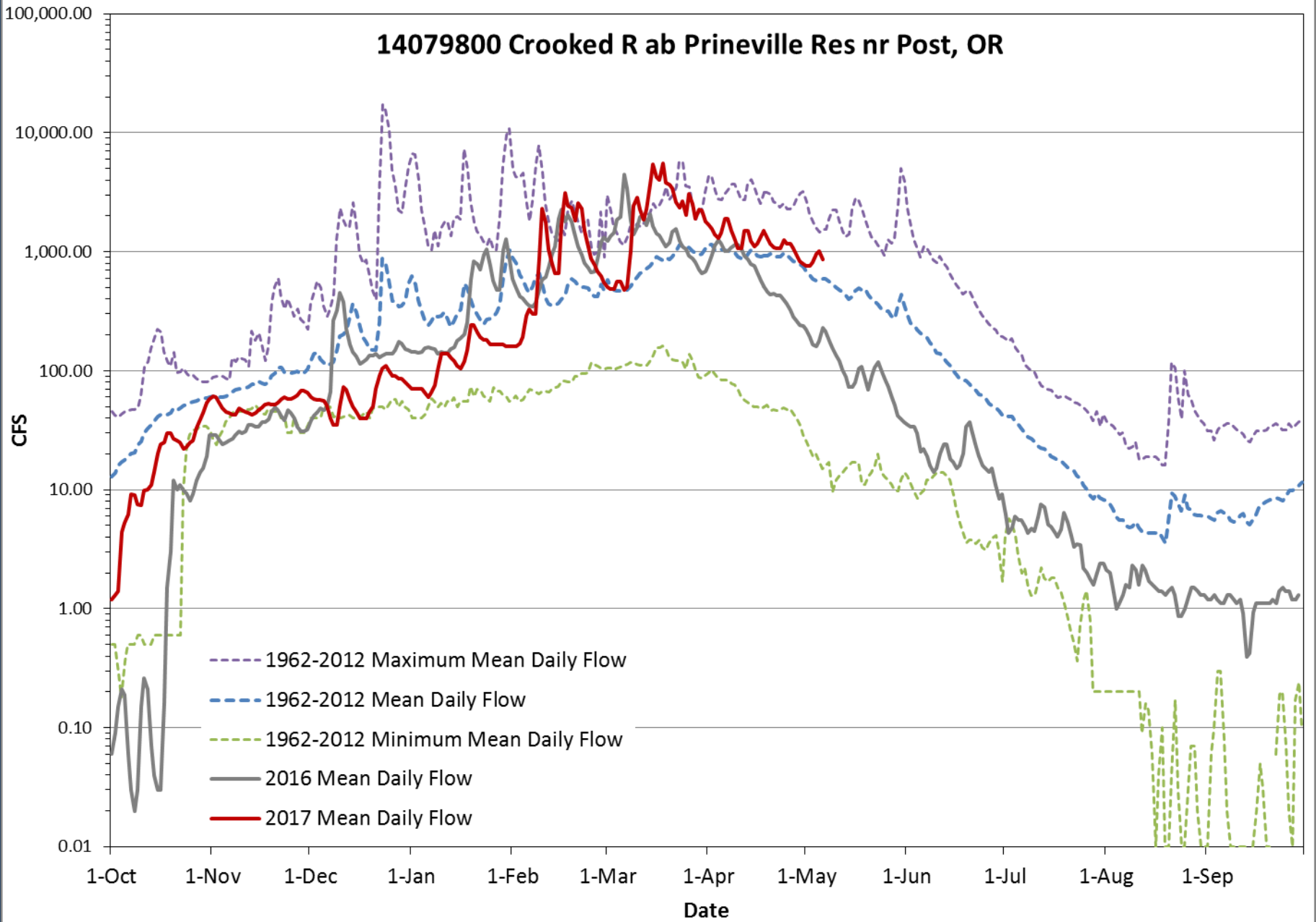
Sandy

# 14134000 Salmon R nr Government Camp, OR



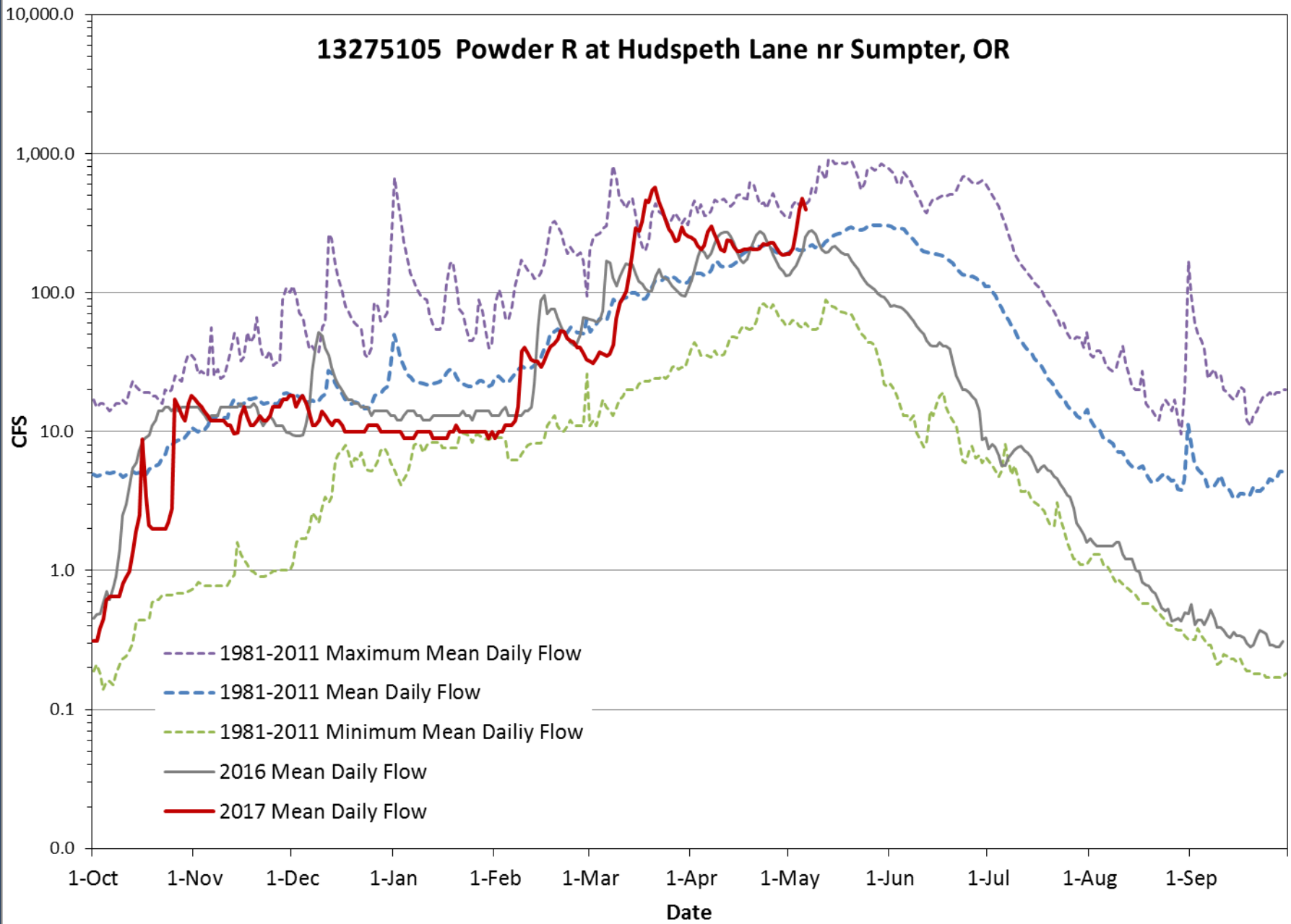
Deschutes

# 14079800 Crooked R ab Prineville Res nr Post, OR



Powder

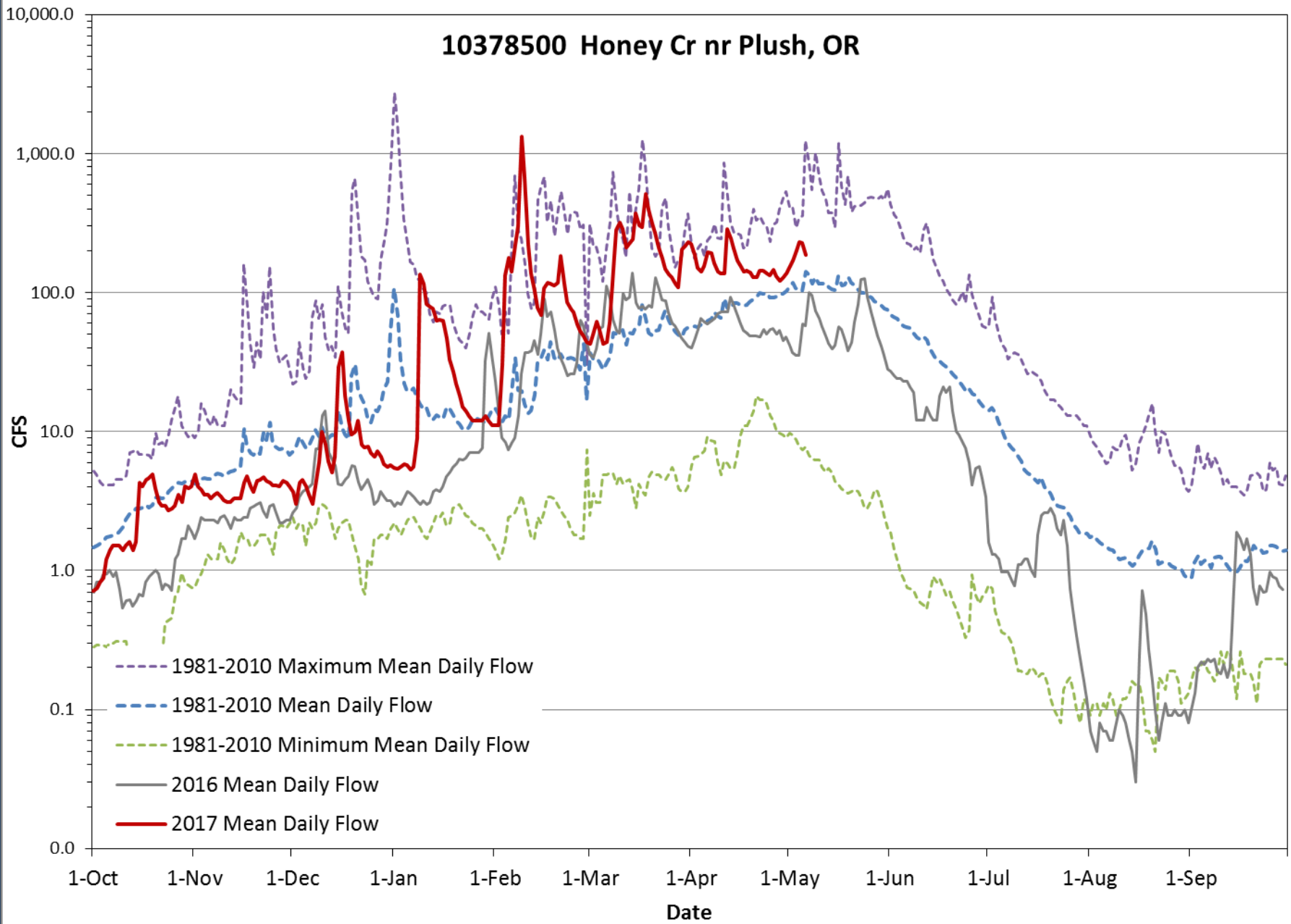
# 13275105 Powder R at Hudspeth Lane nr Sumpter, OR





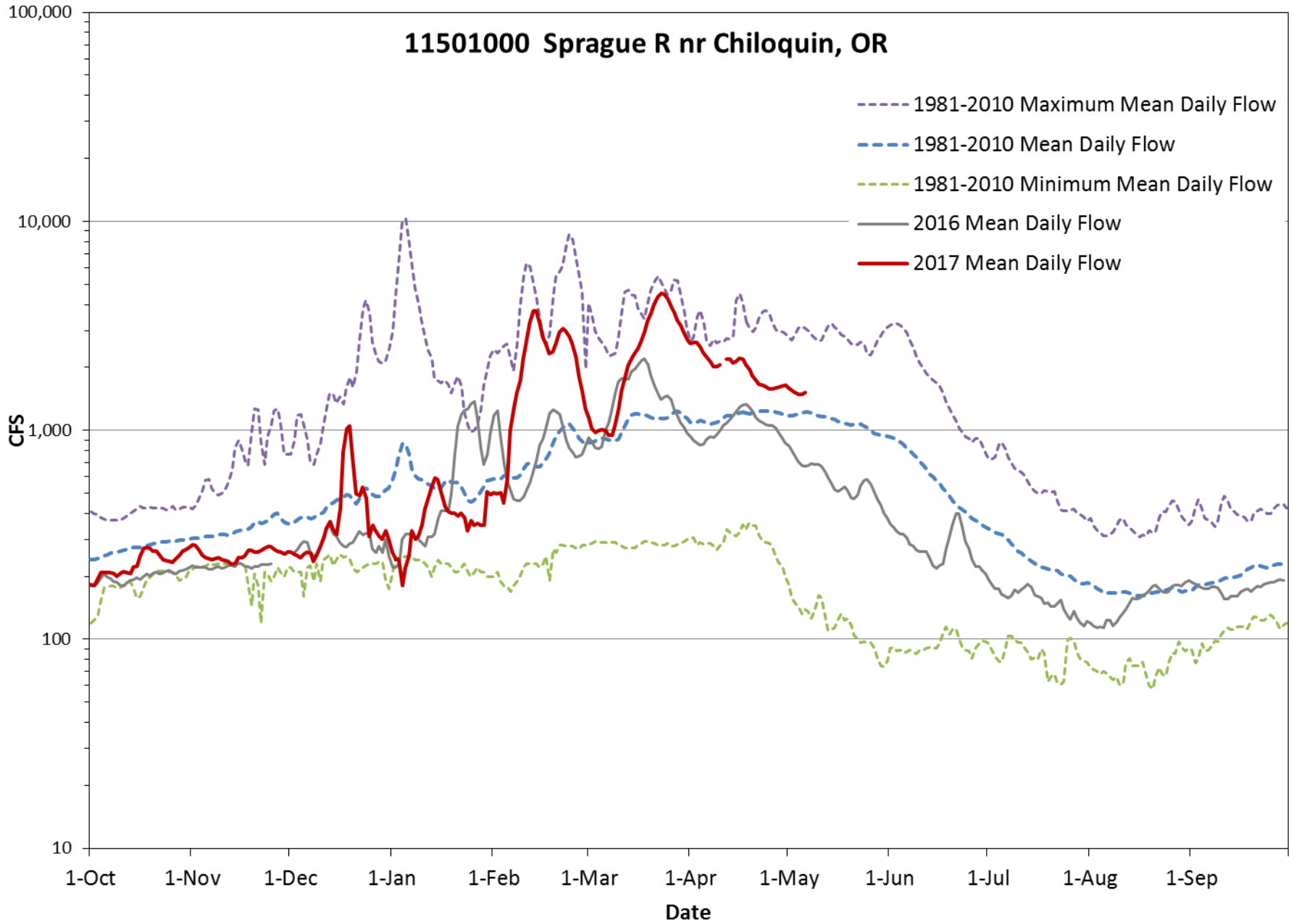
Lake County

# 10378500 Honey Cr nr Plush, OR



Klamath

# 11501000 Sprague R nr Chiloquin, OR



# Storage

# Reservoir Storage Summary for the end of April, 2017

## Percent of Average Storage

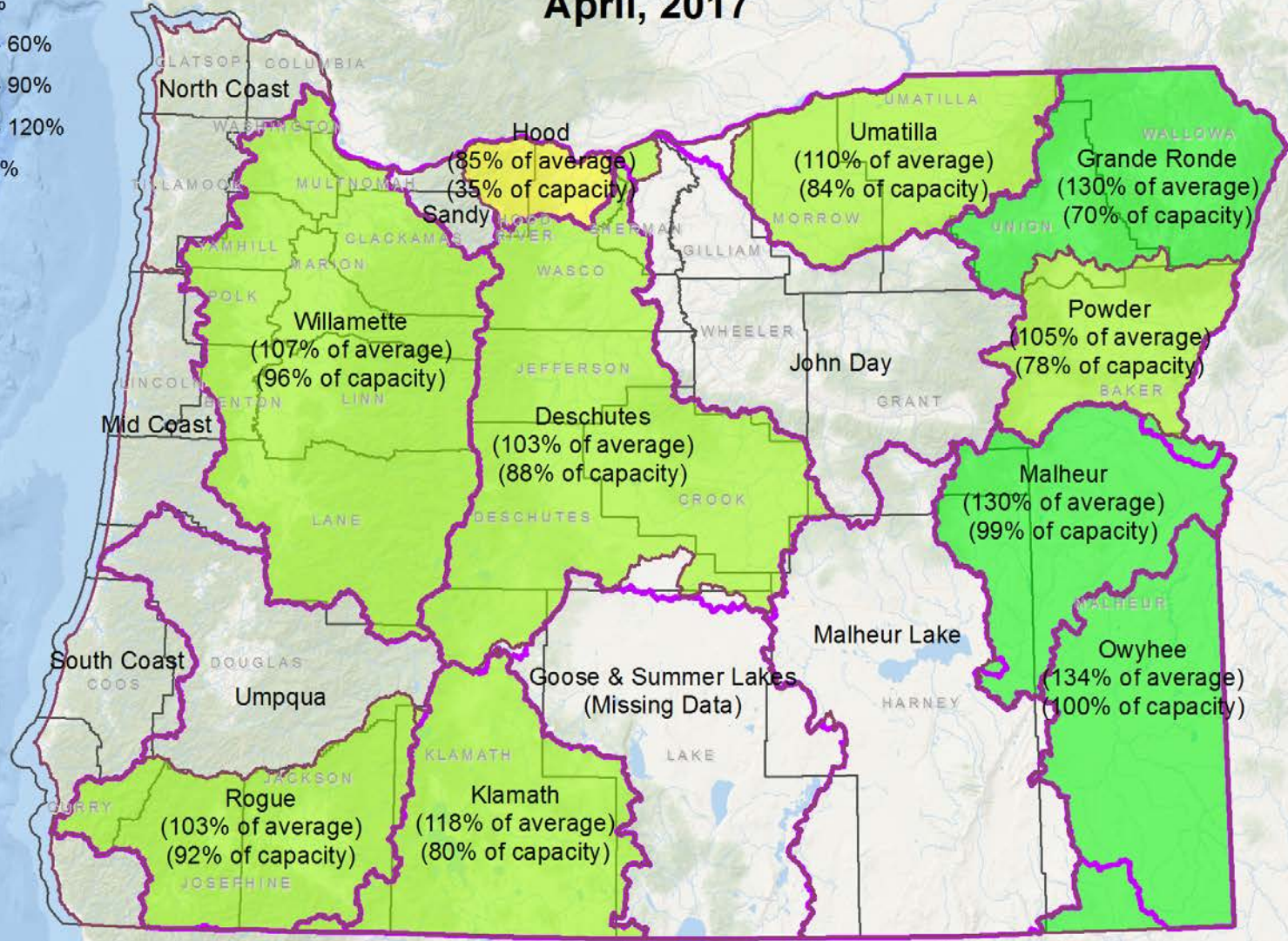
### WRD Basin

- < 36%
- 36% - 60%
- 61% - 90%
- 91% - 120%
- > 120%

### NRCS Basin

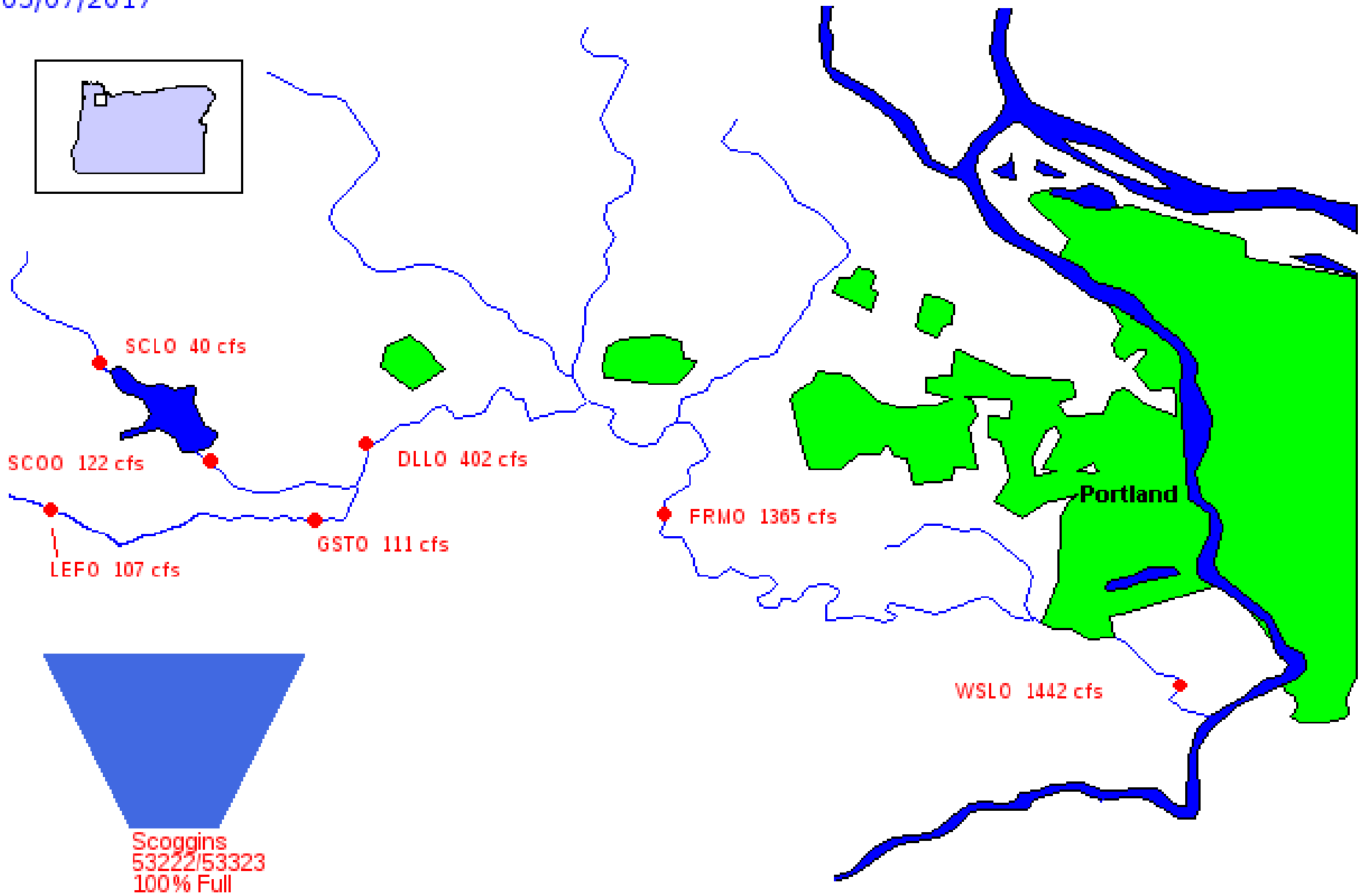
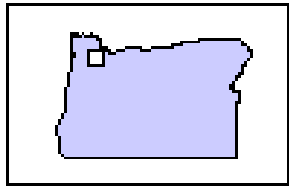


### County



NRCS Basinwide Summary: May 1, 2017  
(averages based on 1981-2010 reference period)

05/07/2017



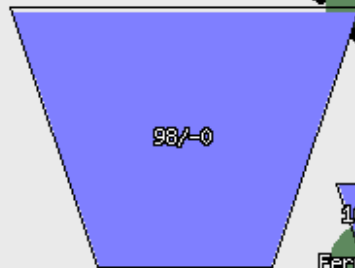
# The Willamette Basin

## LEGEND

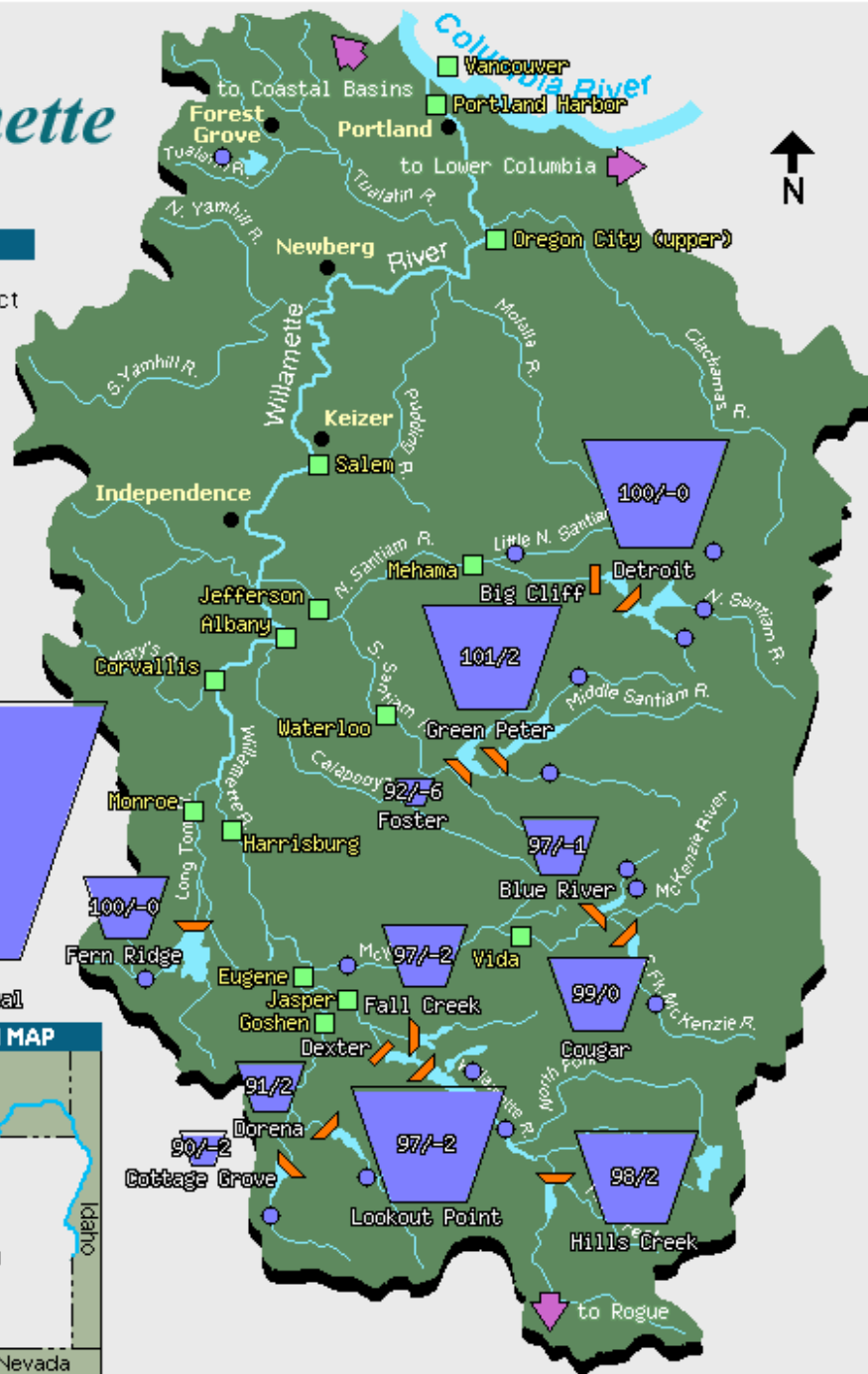
-  Storage Project
-  Run of River
-  Gage
-  No Alerts
-  Bank Full
-  Flood Stage

Overview

Annual

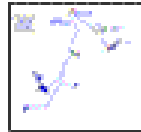
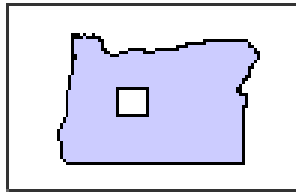


Willamette Total

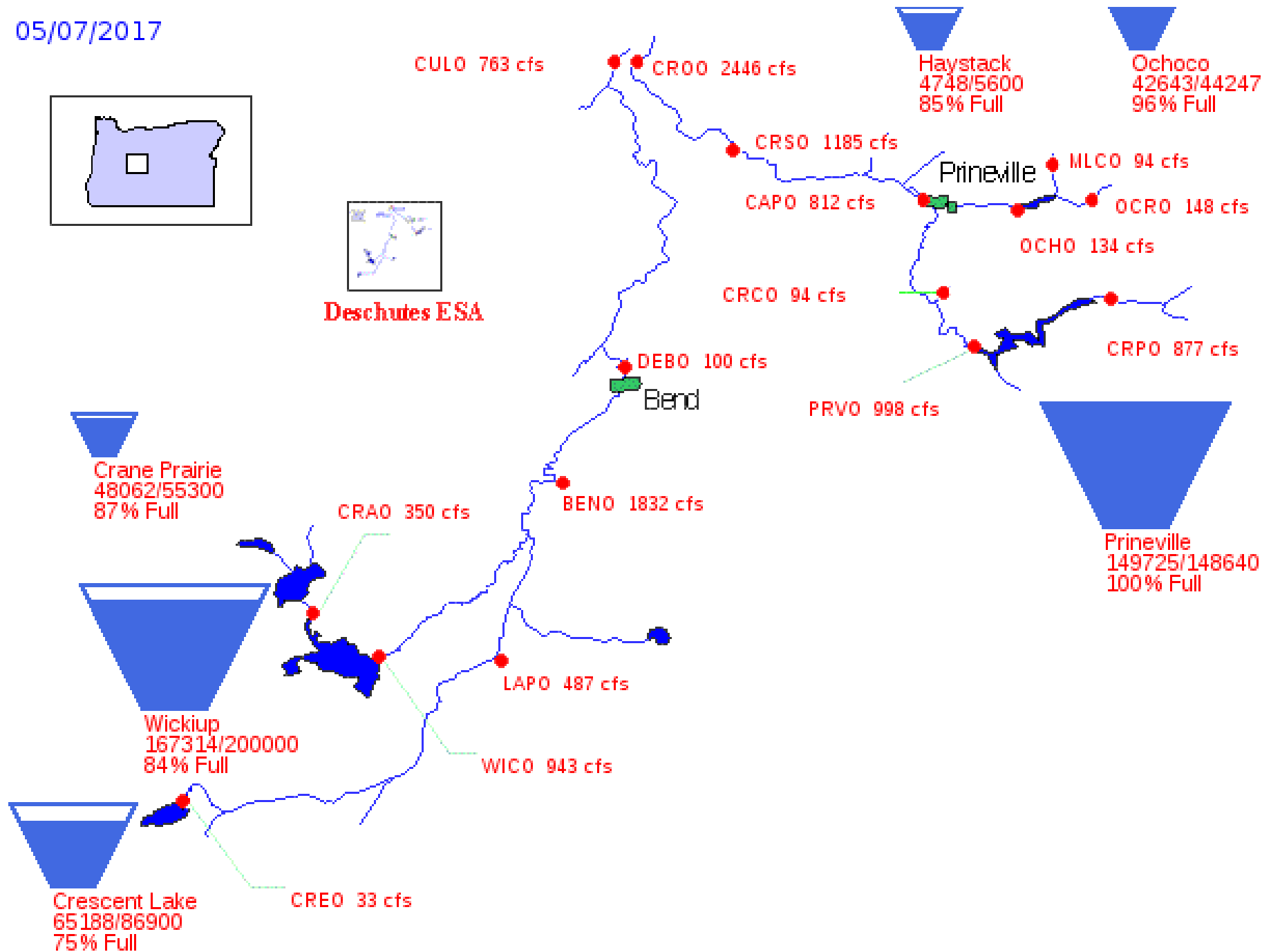


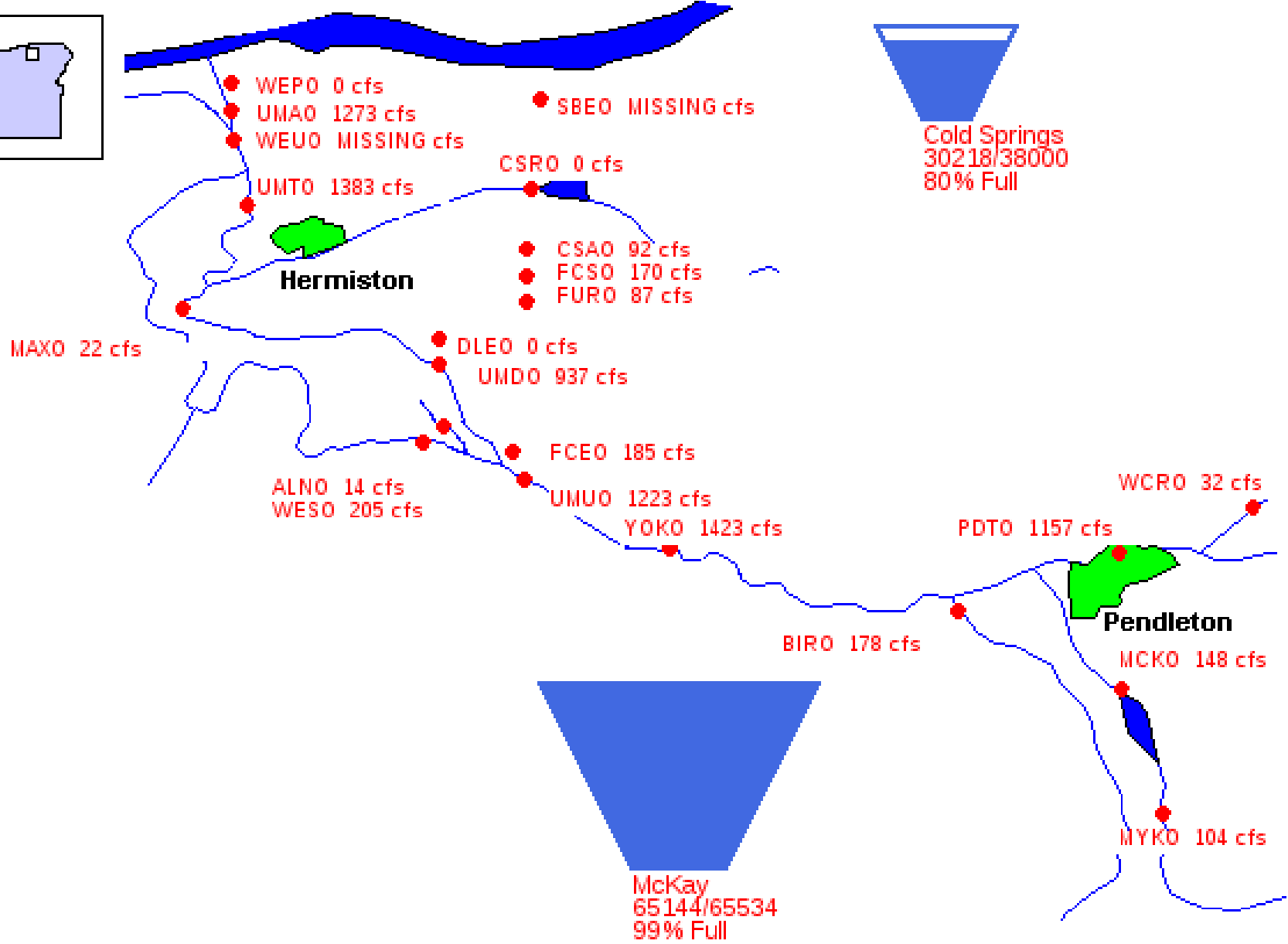
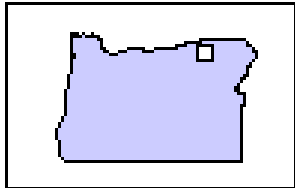


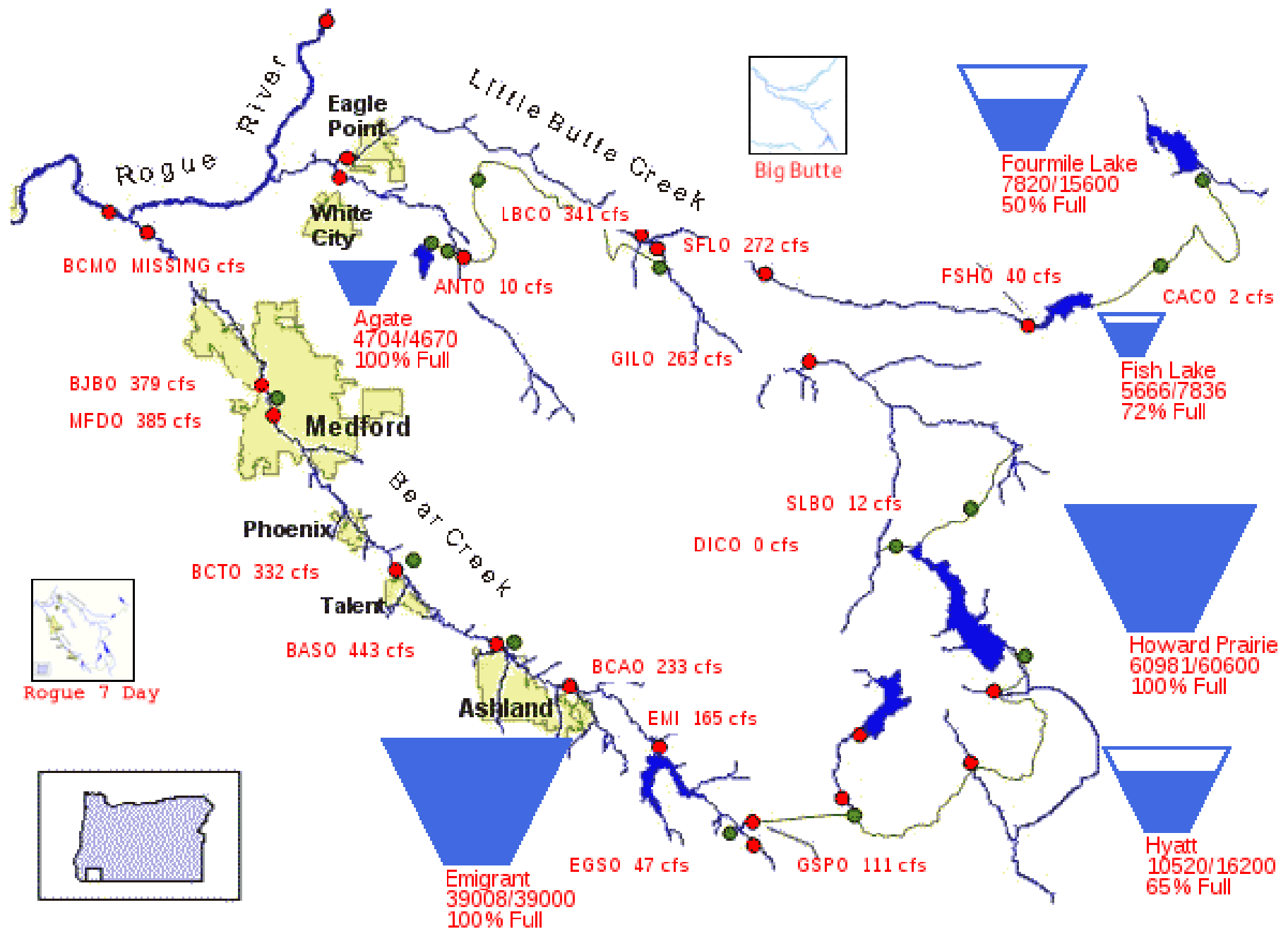
05/07/2017

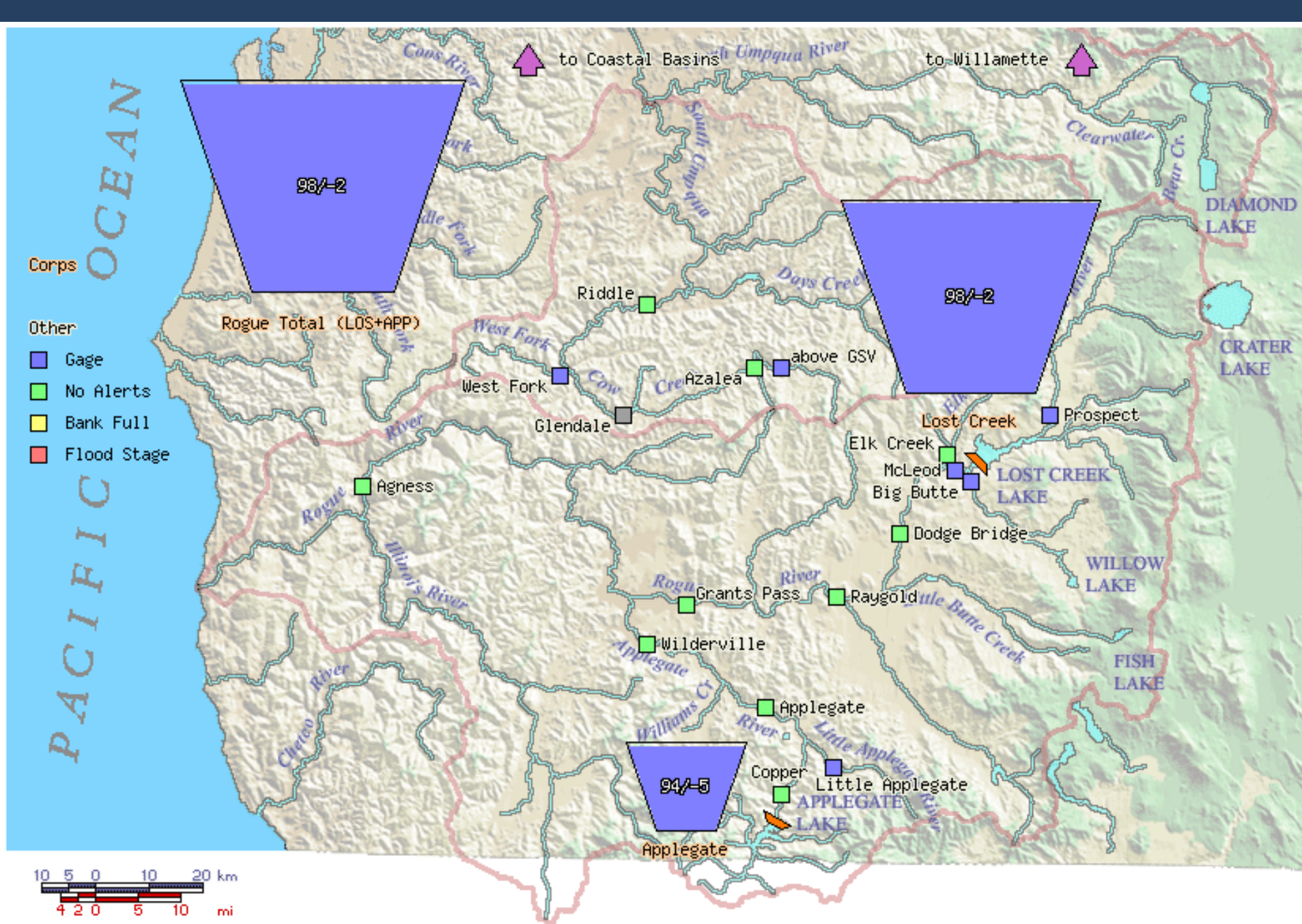


**Deschutes ESA**







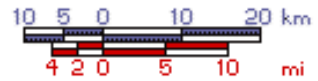


98/-2

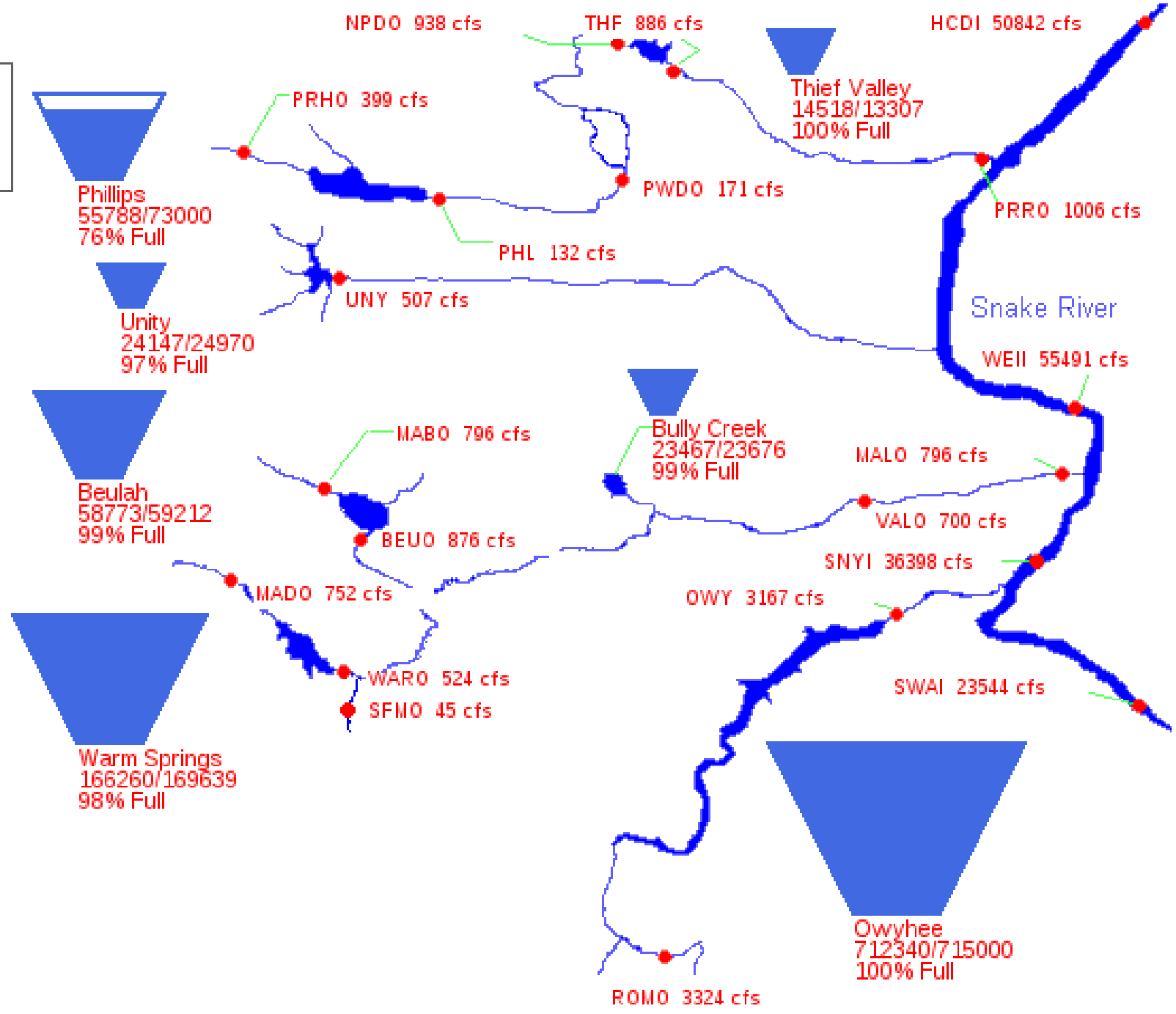
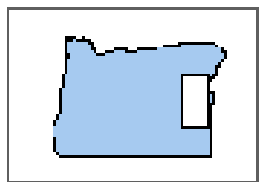
98/-2

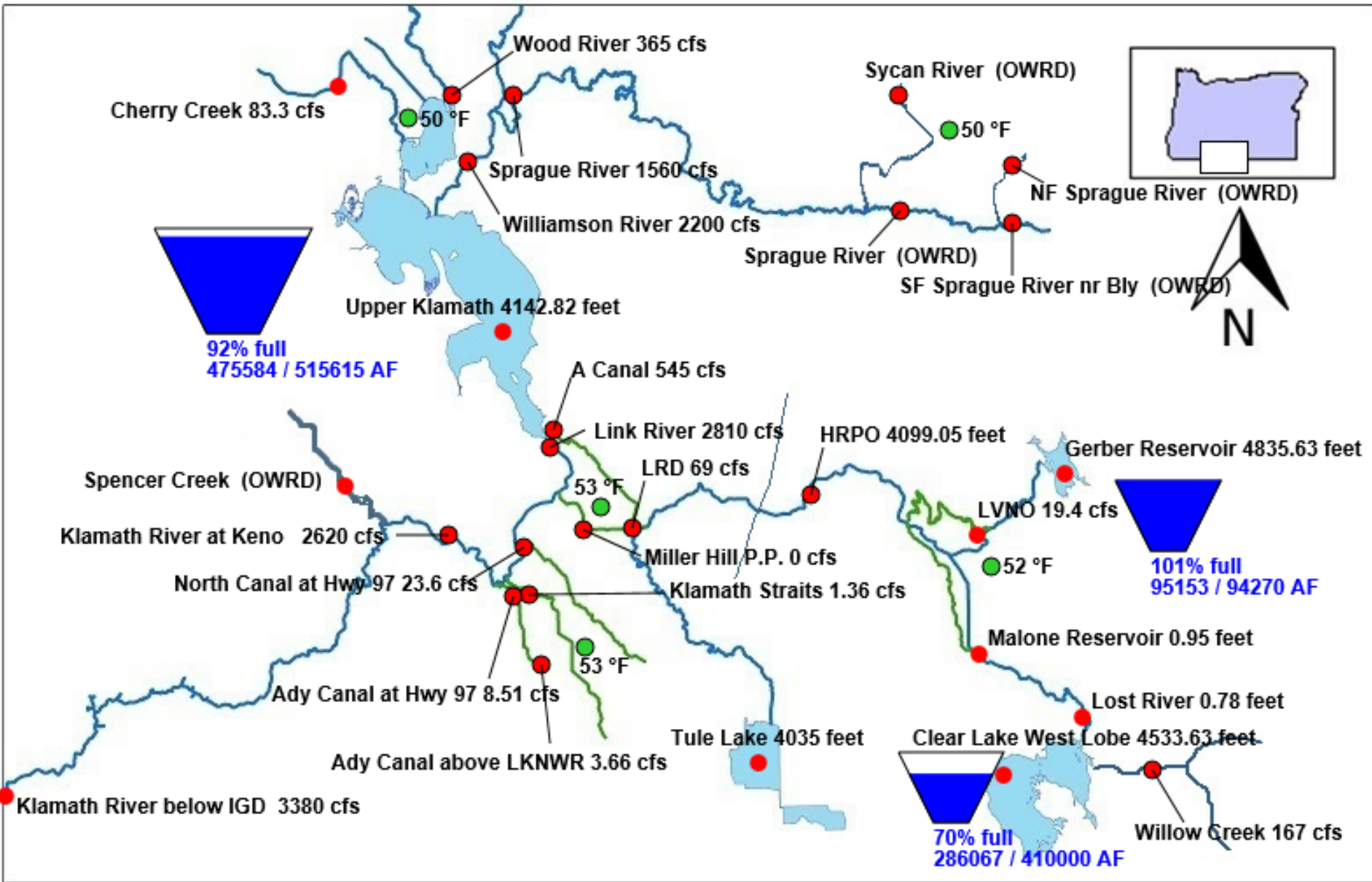
94/-5

- Corps
- Other
- Gage
- No Alerts
- Bank Full
- Flood Stage



05/07/2017





Thank You



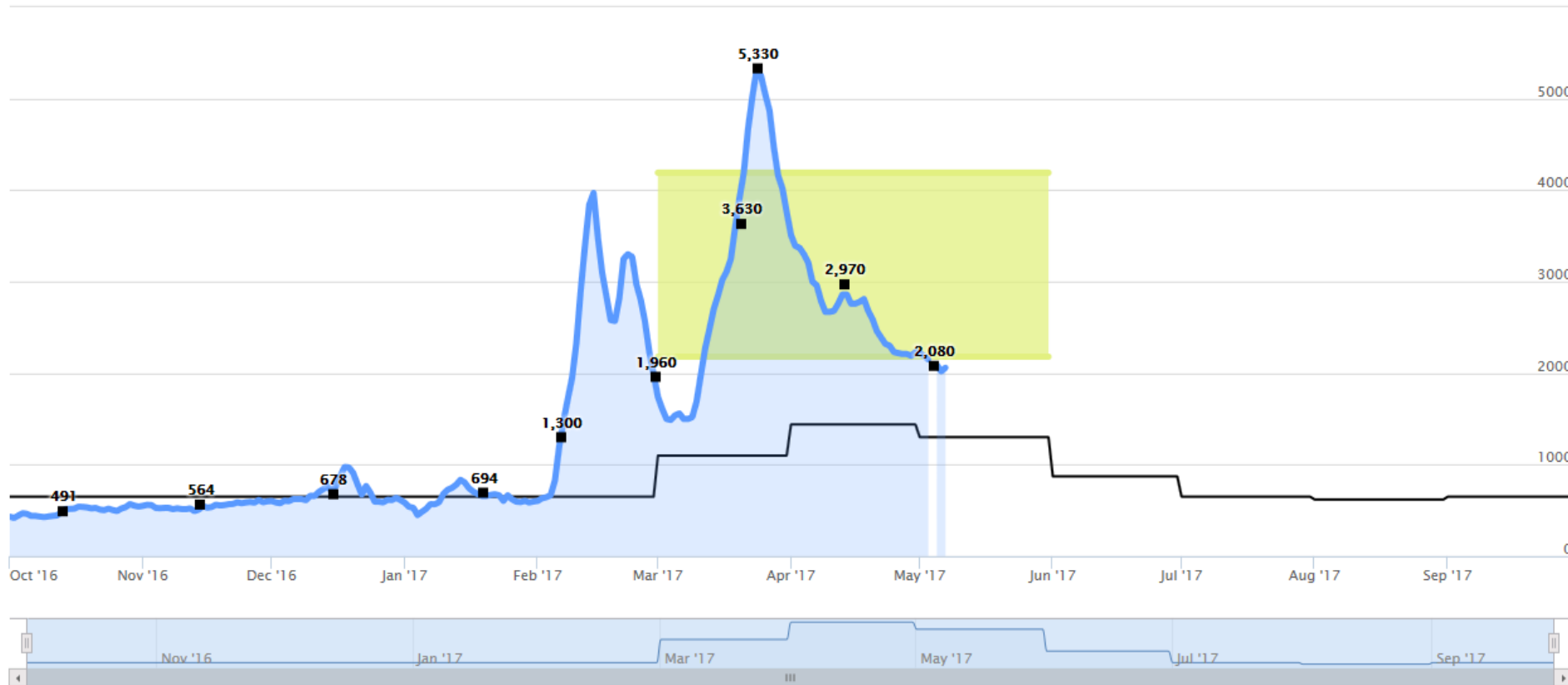
Search Records

Claim Char:    Claim Nbr:    Start Date:    End Date:    [Chart](#)  
 Tool Tips Off:

Lower Williamson River ( KA-625, Gaging Station: 11502550)

Zoom [1m](#) [3m](#) [6m](#) [YTD](#) [1y](#) [All](#)

From  To



— Instream Claim   
  Habitat High Flows   
 — Mean Daily Flow   
 ■ Measurement



Surface Water Conditions Report  
**Water Supply Availability Committee**



Ken Stahr  
Oregon Water Resources  
Department  
**April 11, 2017**



# Water Supply Availability Committee May 2017

[http://or.water.usgs.gov/data\\_dir/war\\_dir/war1604.html](http://or.water.usgs.gov/data_dir/war_dir/war1604.html)

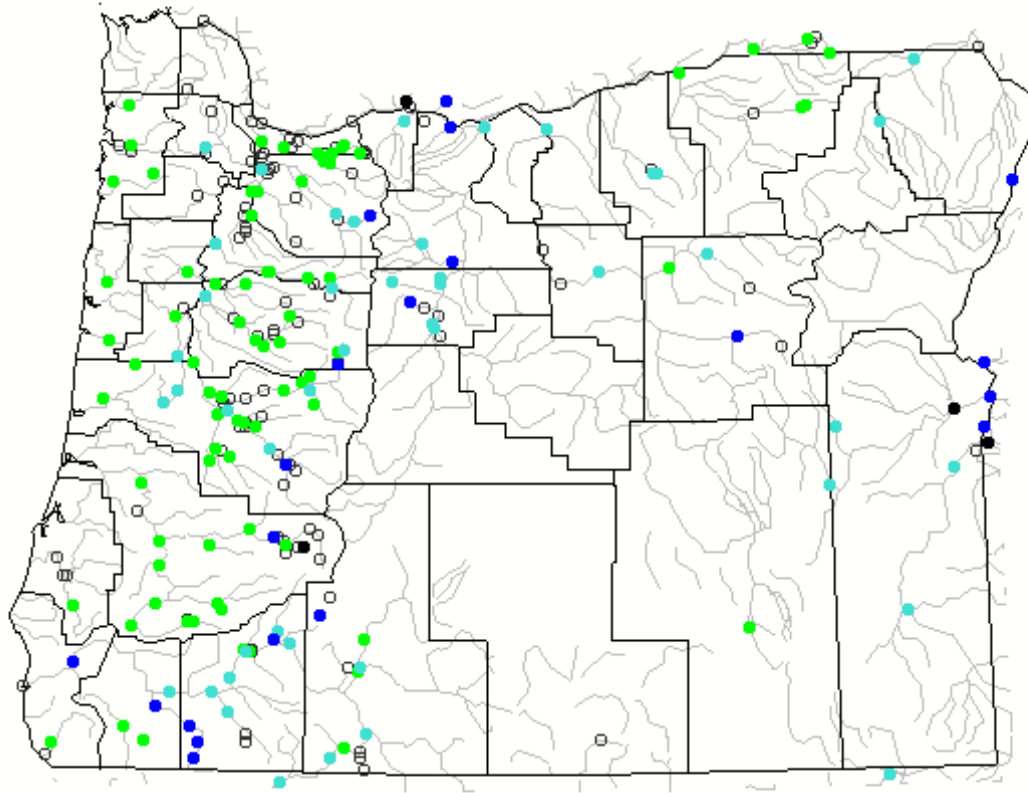
[http://or.water.usgs.gov/sw\\_studies/index.html](http://or.water.usgs.gov/sw_studies/index.html)

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

# Map of real-time streamflow compared to historical streamflow for the day of the year (Oregon)

Oregon ▼ or Water-Resources Regions ▼

Tuesday, May 09, 2017 09:30ET



# Comparison of Streamflow Maps

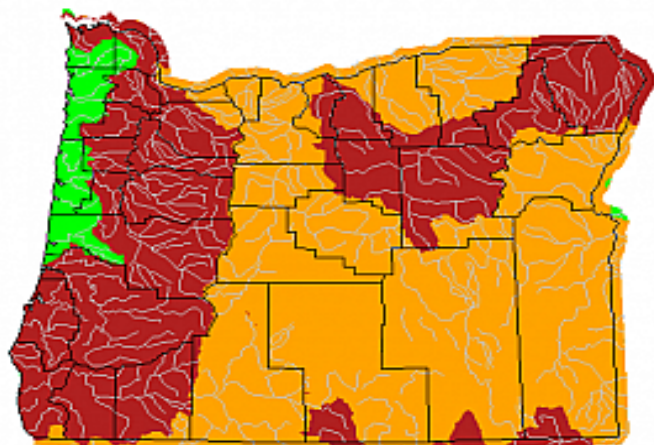
Geographic area:  Water resource region:  GO

Map type:  Sub type:

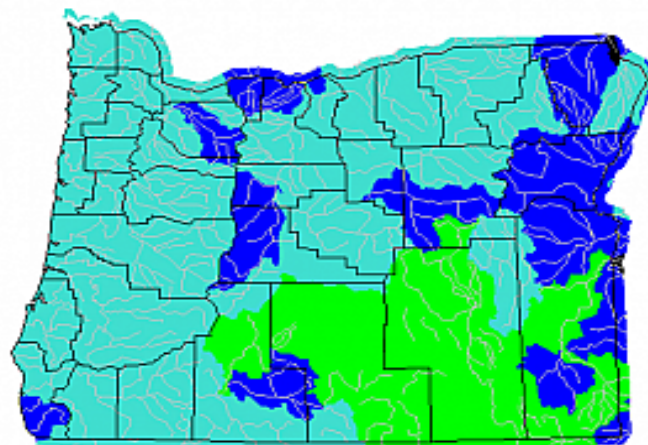
Date (YYYYMM):

Date (YYYYMM):

July 1994



Apr 11 2017



## Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

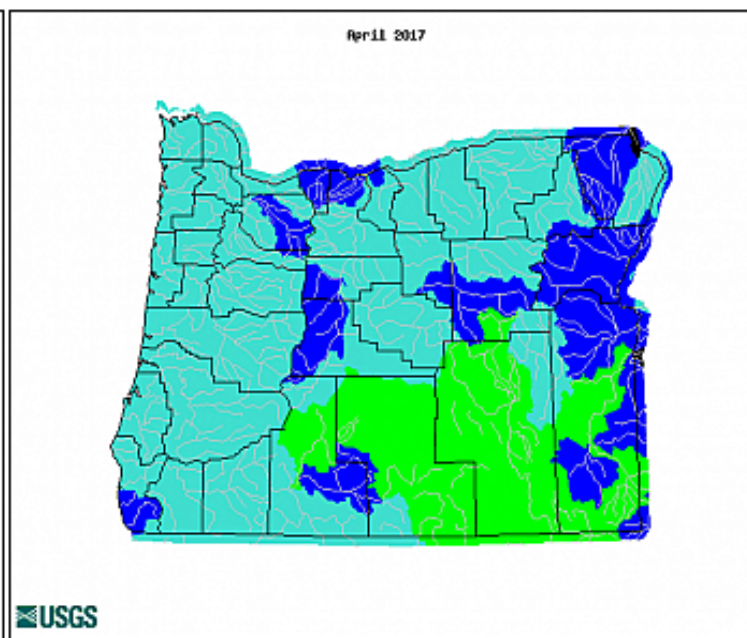
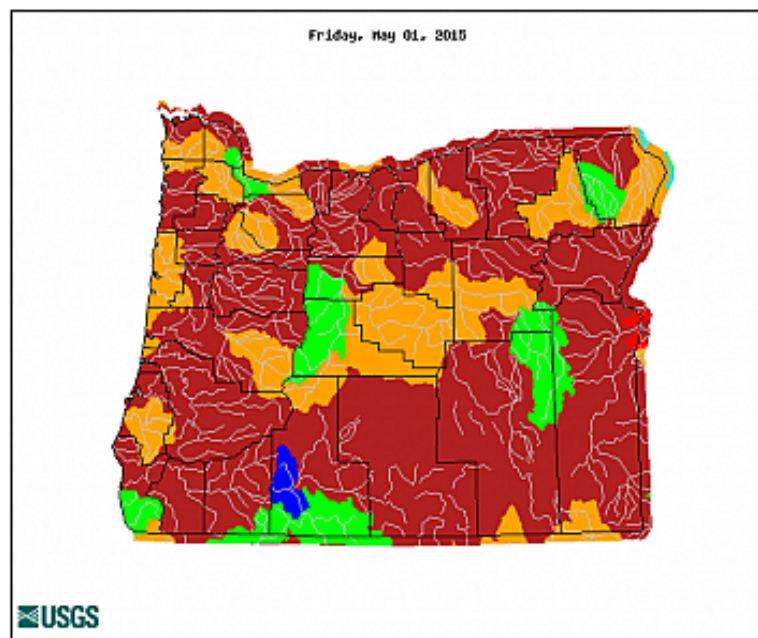
# Comparison of Streamflow Maps

Geographic area: Oregon ▼ Water resource region: ▼ GO

Map type: Monthly Streamflow (month of year) ▼ Sub type: HUC Streamflow Map ▼

Date (YYYYMM): 201504

Date (YYYYMM): 201704



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

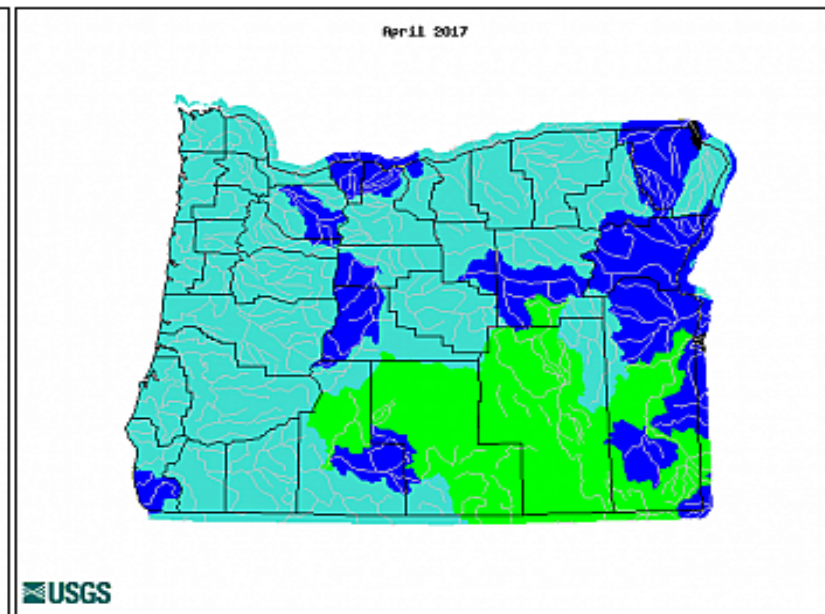
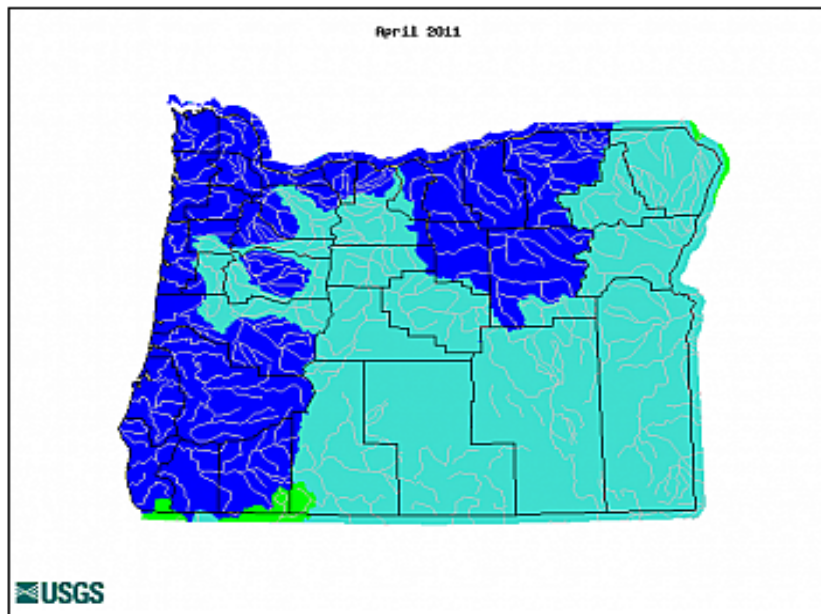
# Comparison of Streamflow Maps

Geographic area: Oregon Water resource region: GO

Map type: Monthly Streamflow (month of year) Sub type: HUC Streamflow Map

Date (YYYYMM): 201104

Date (YYYYMM): 201704

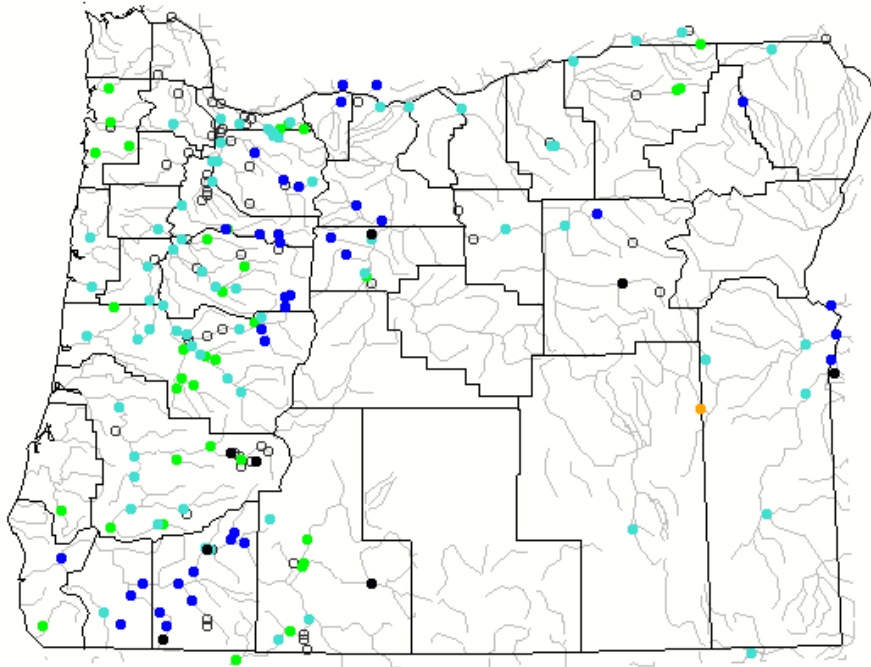


Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

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

Oregon ▼ or Water-Resources Regions ▼ All Days

Monday, May 08, 2017



Search USGS streamgage 🔍

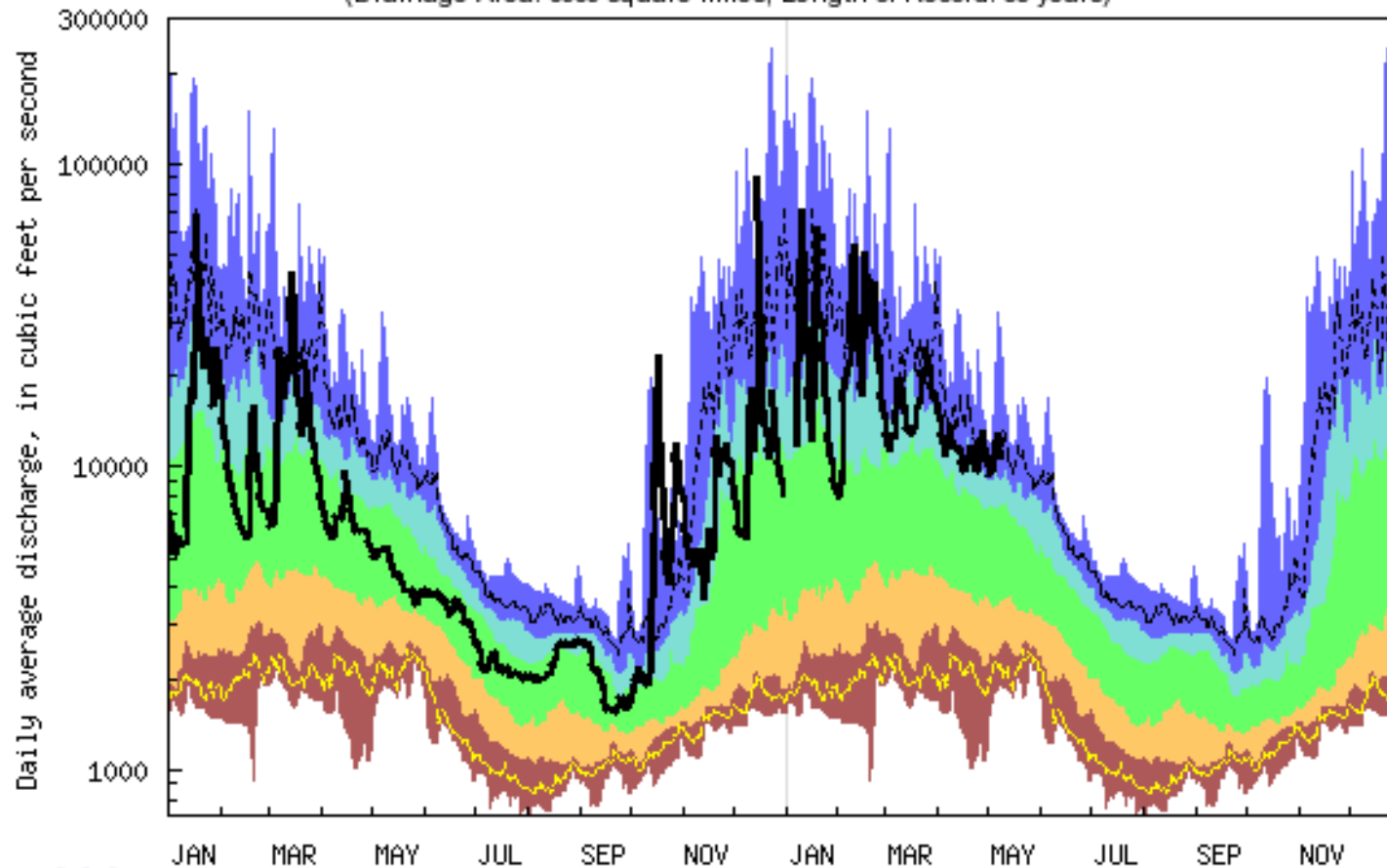
Choose a data retrieval option and select a location on the map

- List of all stations  Single station  Nearest stations

### Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High
						Not-ranked

USGS 14372300 ROGUE RIVER NEAR AGNESS, OR  
 (Drainage Area: 3939 square miles, Length of Record: 55 years)



USGS WaterWatch

2016

2017

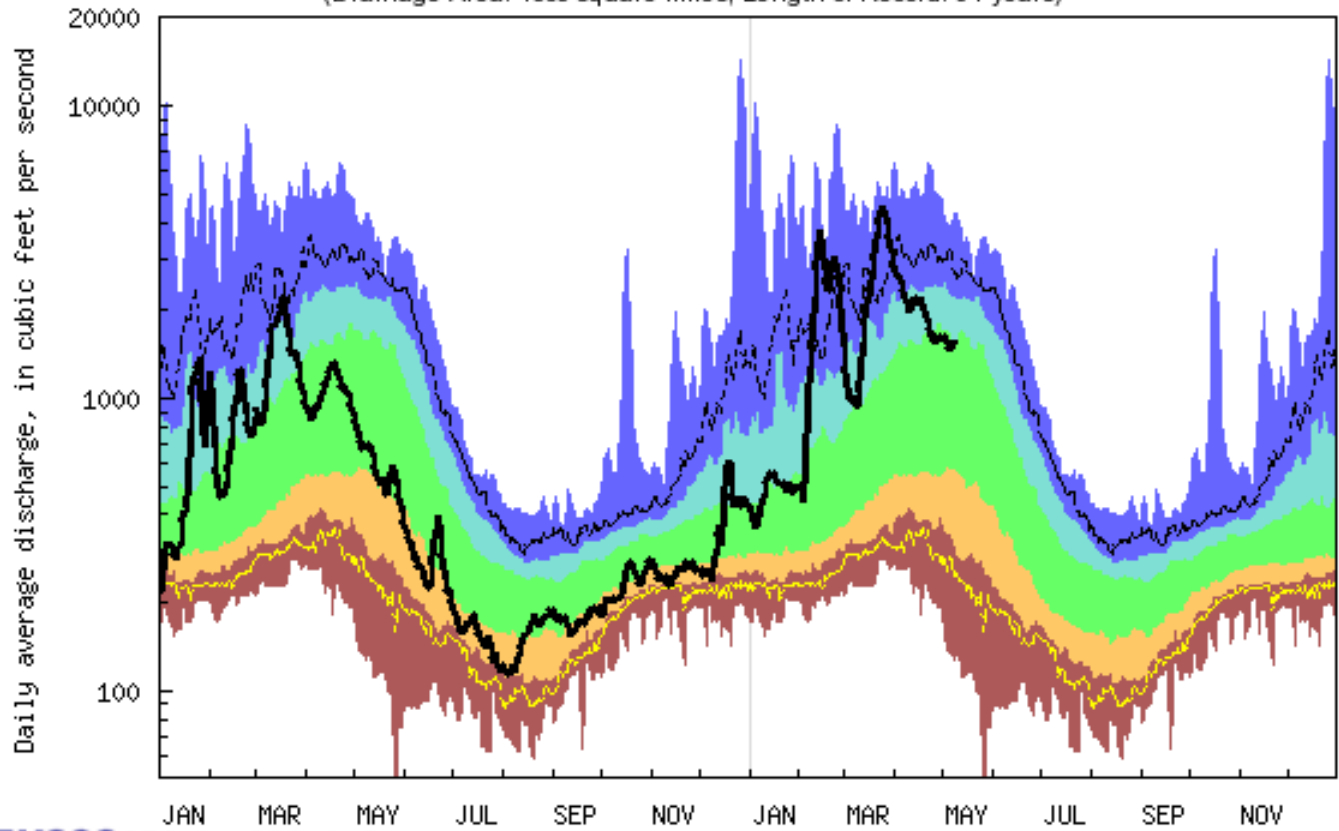
Last updated: 2017-05-09

Explanation - Percentile classes

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



USGS 11501000 SPRAGUE RIVER NEAR CHILOQUIN, OR  
 (Drainage Area: 1565 square miles, Length of Record: 94 years)









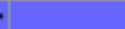

USGS WaterWatch

2016

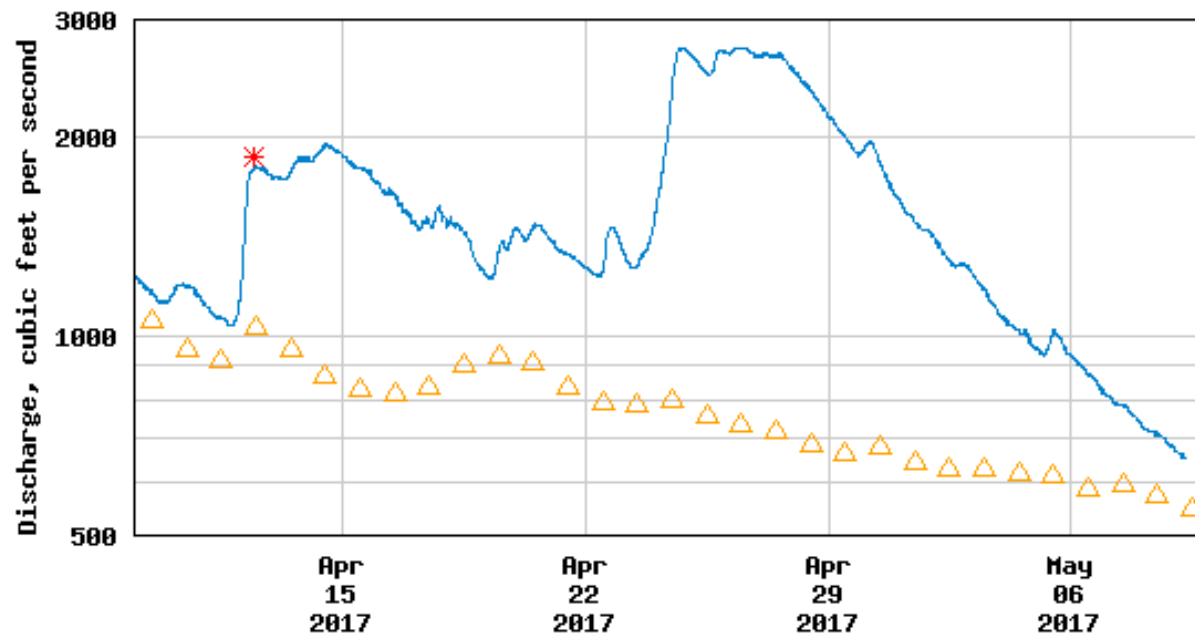
2017

Last updated: 2017-05-09

Explanation - Percentile classes

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

USGS 14303600 NESTUCCA RIVER NEAR BEAVER, OR



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

△ Median daily statistic (35 years) \* Measured discharge  
 — Discharge

Create [presentation-quality](#) / [stand-alone](#) graph. Subscribe to [WaterAlert](#)

P0060

[+](#) [Share this graph](#) | [f](#) [t](#) [e](#) [m](#)

Daily discharge, cubic feet per second -- statistics for May 9 based on 35 years of record [more](#)

Min (1989)	25th percentile	Median	Most Recent Instantaneous Value May 9	Mean	75th percentile	Max (2014)
237	434	547	655	688	969	1720

US GEOLOGICAL SURVEY, OREGON WATER SCIENCE CENTER  
 WATER AVAILABILITY REPORT FOR APRIL 2017

Station	NRCS SWSI Basin	Monthly mean discharge		Change in dis- charge from previous month (percent)	Accumulated Runoff For the Period Oct. to Apr.  Percent of average
		Cubic feet per second	Percent of average		
Donner Und Blitzen nr Frenchglen	Harney	240	107	30	94
(*)Deep Creek above Adel	Lake County	727	196	-15	239
(*)Chewaucan River near Paisley	Lake County	682	191	-9	235
Williamson River near Chiloquin	Klamath	2,858	158	-5	132
Owyhee River near Rome	Owyhee	3,569	133	-12	165
(*)NF Malheur River near Beulah	Malheur	624	168	-21	180
Grande Ronde R at Troy	Grande Ronde Powder/Burnt	9,290	152	-27	162
Umatilla River nr Gibbon	Umatilla Lower John Day	679	126	-40	149
John Day River at Service Crk	Upper John Day	8,055	152	-15	161
(*)Little Deschutes River nr LaPine	Upper Deschutes	505	186	35	128
Hood River nr Hood River	Lower Deschutes Mt.Hood	2,091	168	-21	113
Willamette River at Salem	Willamette	36,540	155	-40	137
Wilson River near Tillamook	North Coast	1,682	141	-55	147
Umpqua River near Elkton	Rogue/Umpqua	12,720	138	-39	158
Rogue River near Agness	Rogue/Umpqua	11,200	174	-29	203
SF Coquille River at Powers	South Coast	1,448	156	-36	178
Chetco River near Brookings	South Coast	4,853	193	-25	163

# Thank You

## **Provisional Data Statement**

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

Real-time data relayed by satellite or other telemetry are automatically screened to not display improbable values until they can be verified.

Provisional data may be inaccurate due to instrument malfunctions or physical changes at the measurement site. Subsequent review based on field inspections and measurements may result in significant revisions to the data.

Data users are cautioned to consider carefully the provisional nature of the information before using it for decisions that concern personal or public safety or the conduct of business that involves substantial monetary or operational consequences.

Information concerning the accuracy and appropriate uses of these data or concerning other hydrologic data may be obtained from the USGS

