

Oregon Water Supply Availability Committee

July 11, 2017

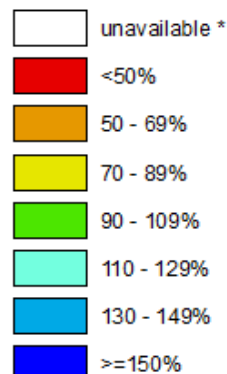


H. Scott Oviatt
Snow Survey Supervisory Hydrologist
USDA NRCS Snow Survey and Water
Supply Forecasting Program
Scott.Oviatt@or.usda.gov
503-414-3271
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/>

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

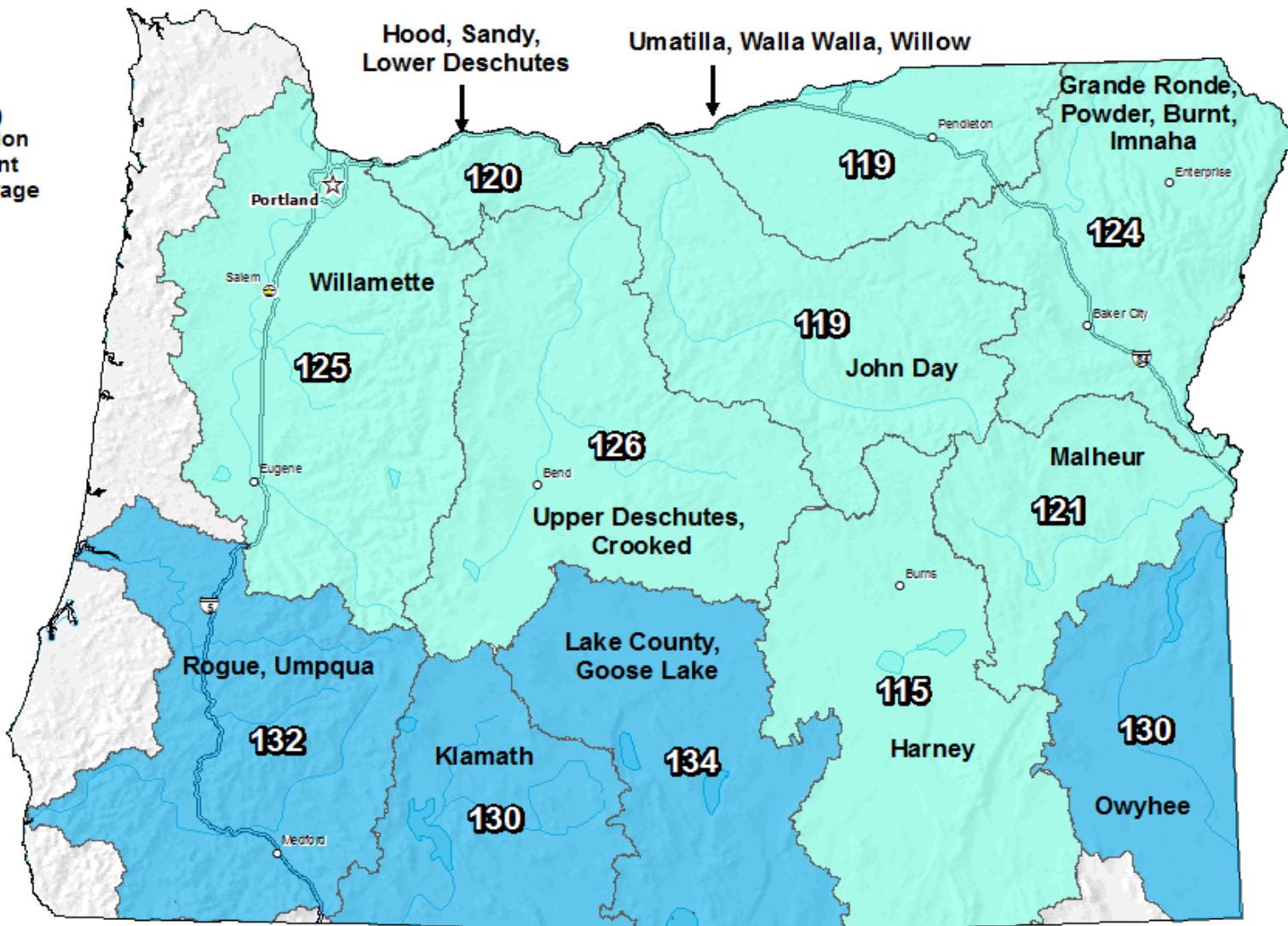
Jul 10, 2017

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

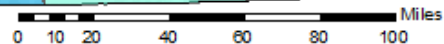


* Data unavailable at time of posting or measurement is not representative at this time of year

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 May 1st – July 9th Percent of Average

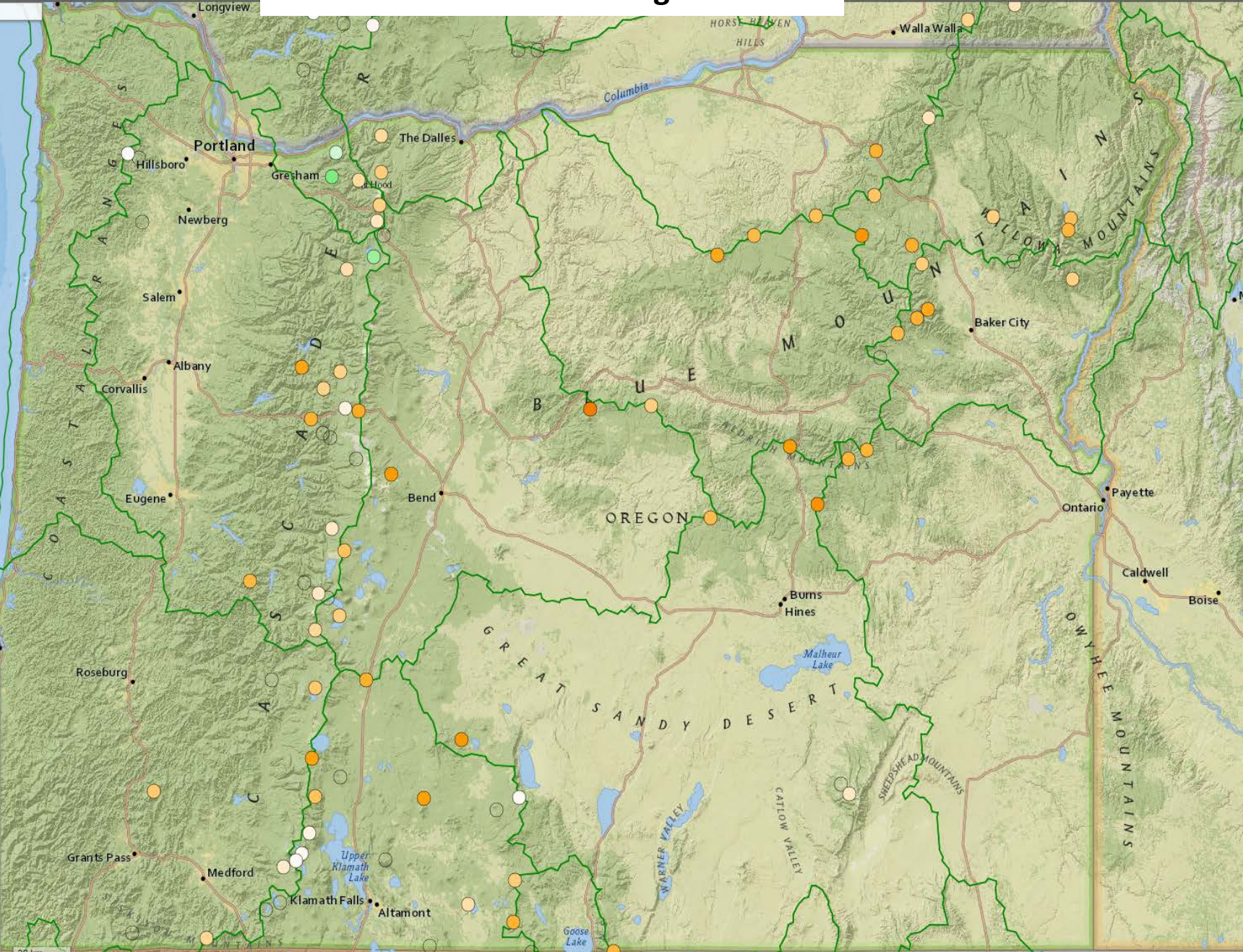
Selected Stations: 214



70 day Precipitation
Percent NRCS 1981-2010
Average
May 1, 2017 through July 9,
2017

Dark Blue	≥ 200%
Blue	175%
Light Blue	150%
Green	125%
White	100%
Light Orange	75%
Orange	50%
Dark Orange	25%
Red	≤ 0%

Watershed Boundaries
Basin (6-Digit HUC)



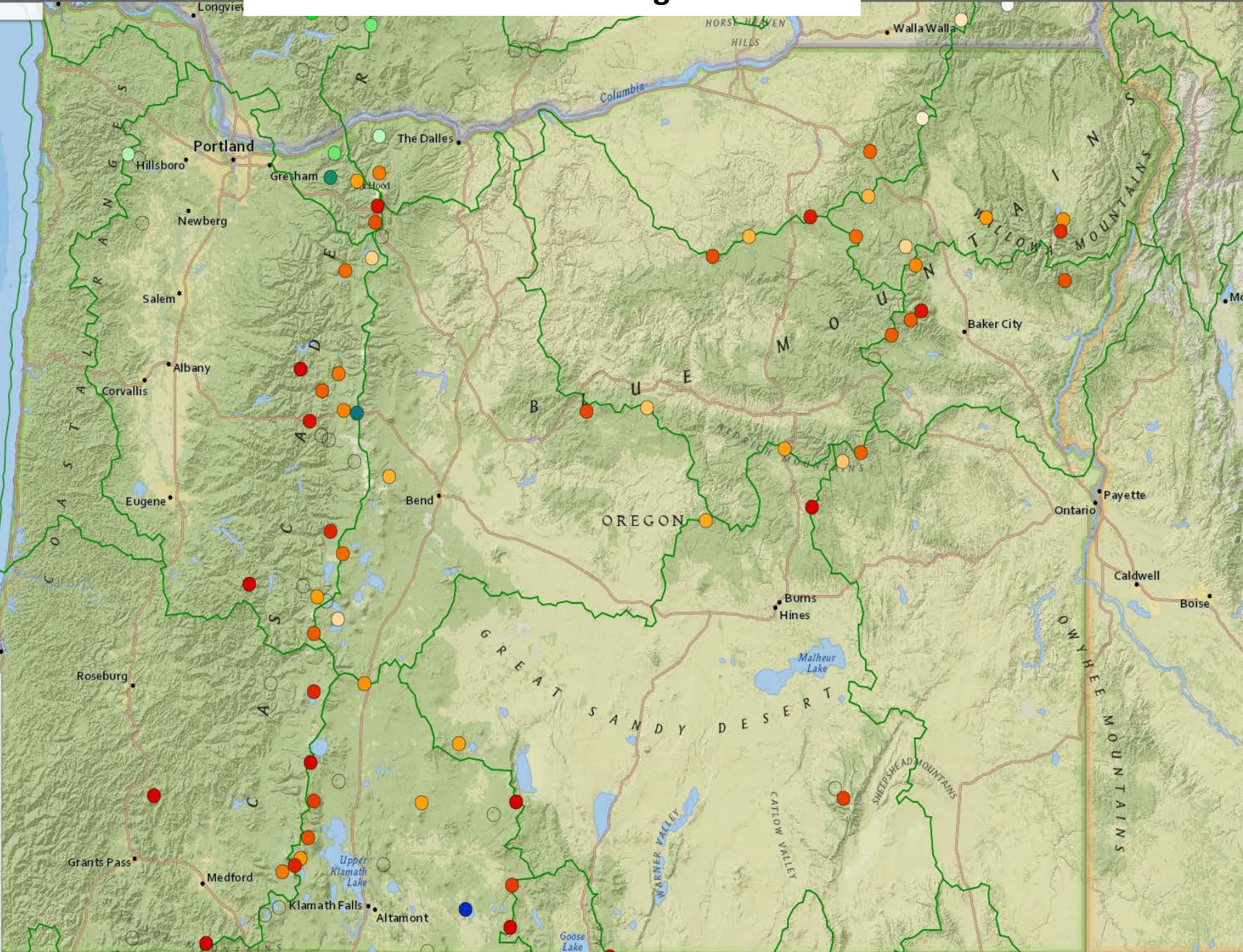
SNOTEL Precipitation June 13th – July 9th Percent of Average



27 day Precipitation
Percent NRCS 1981-2010
Average
June 13, 2017 through July
9, 2017

Dark Blue	≥ 200%
Blue	175%
Light Blue	150%
Green	125%
White	100%
Light Orange	75%
Orange	50%
Dark Orange	25%
Red	≤ 0%

Watershed Boundaries
Basin (6-Digit HUC)



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July 11, 2017



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<http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/>

Thank you!

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Oregon Water Supply Availability

July 11, 2017 NWS Update



Andy Bryant, NWS Portland

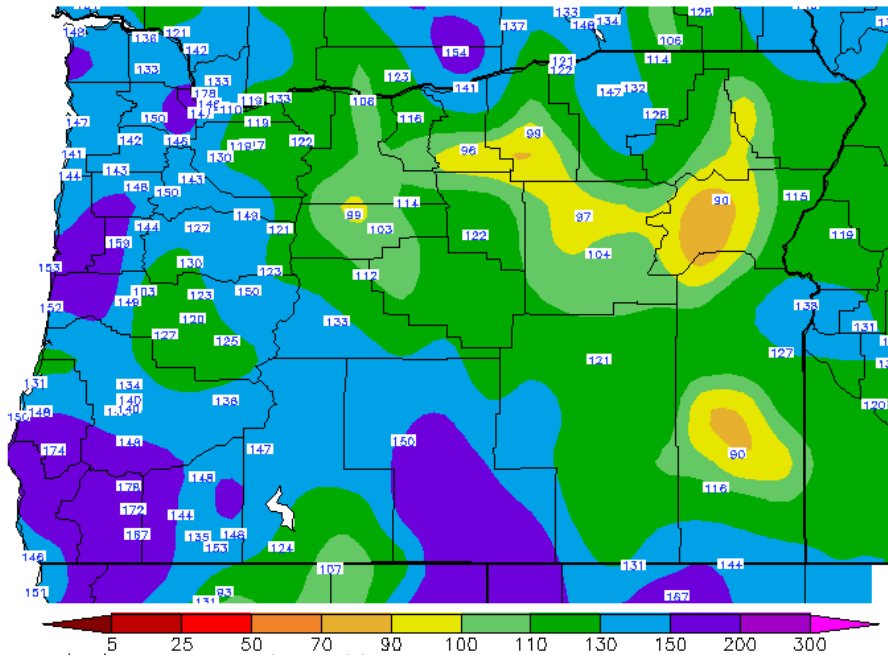


Seasonal Precipitation

*Water Year - Percent of Average
Columbia Basin*

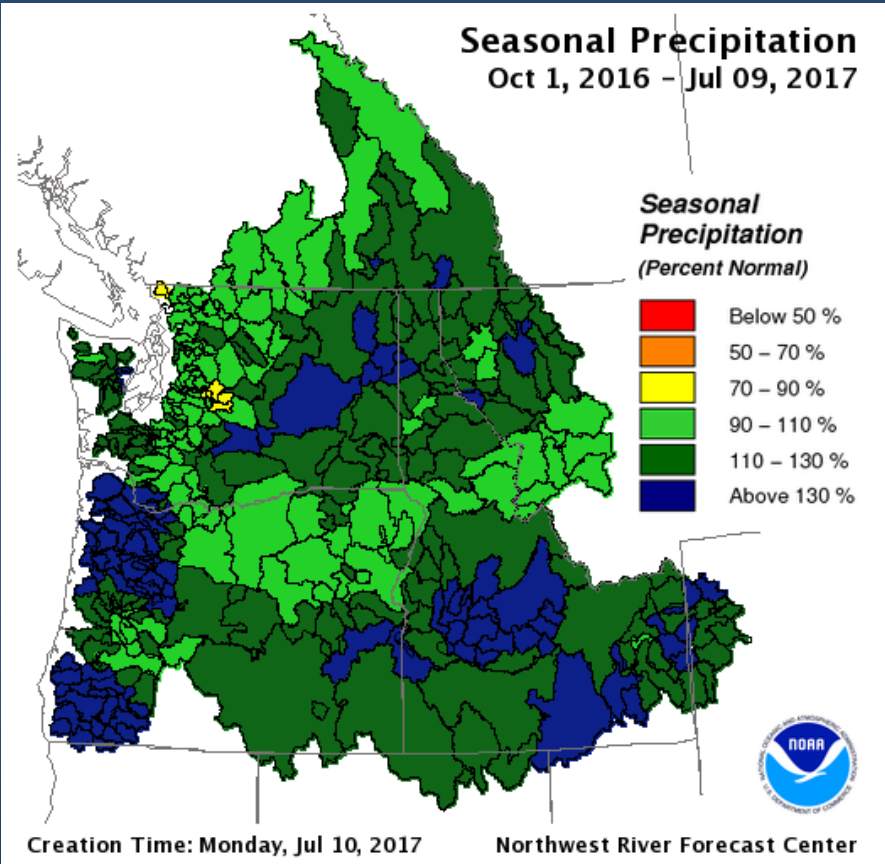
Water Year - Percent of Average

Percent of Average Precipitation (%)
10/1/2016 - 7/9/2017



Generated 7/10/2017 at WRCC using provisional data.
NOAA Regional Climate Centers

Seasonal Precipitation
Oct 1, 2016 - Jul 09, 2017

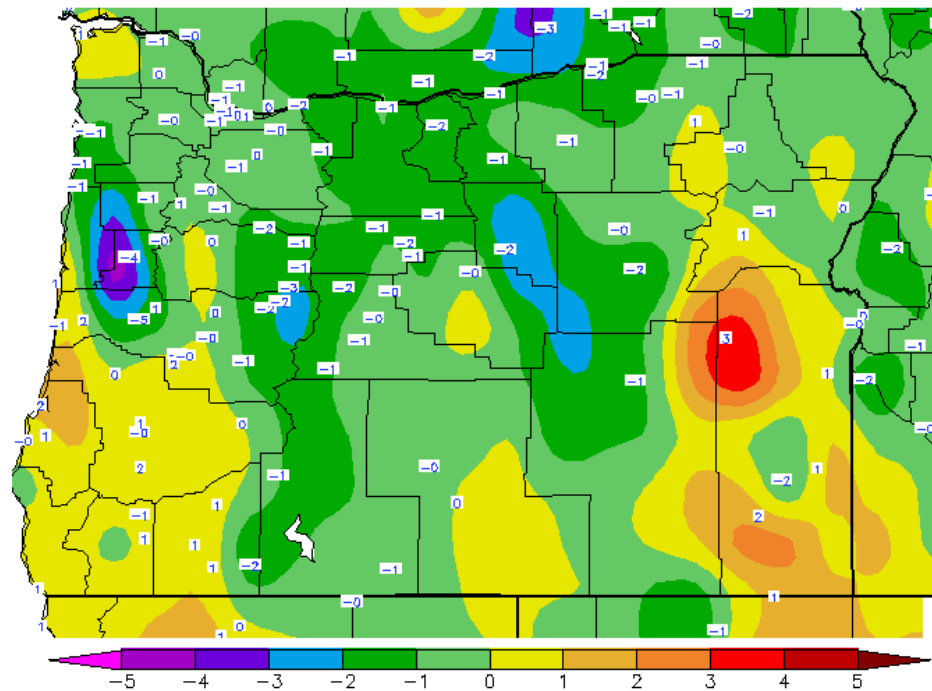




Seasonal Temperatures

Water Year - Departure from Average

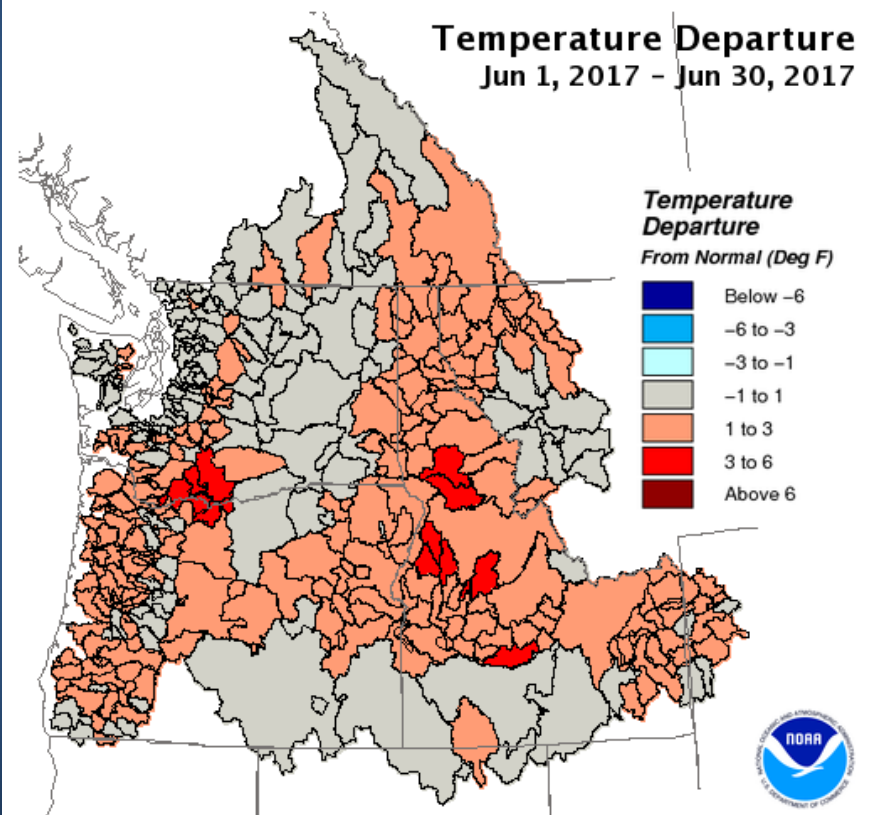
Ave. Temperature dep from Ave (deg F)
10/1/2016 - 7/9/2017



Generated 7/10/2017 at WRCC using provisional data.
NOAA Regional Climate Centers

June Temps in Columbia Basin

Temperature Departure
Jun 1, 2017 - Jun 30, 2017



Creation Time: Saturday, Jul 1, 2017

Northwest River Forecast Center

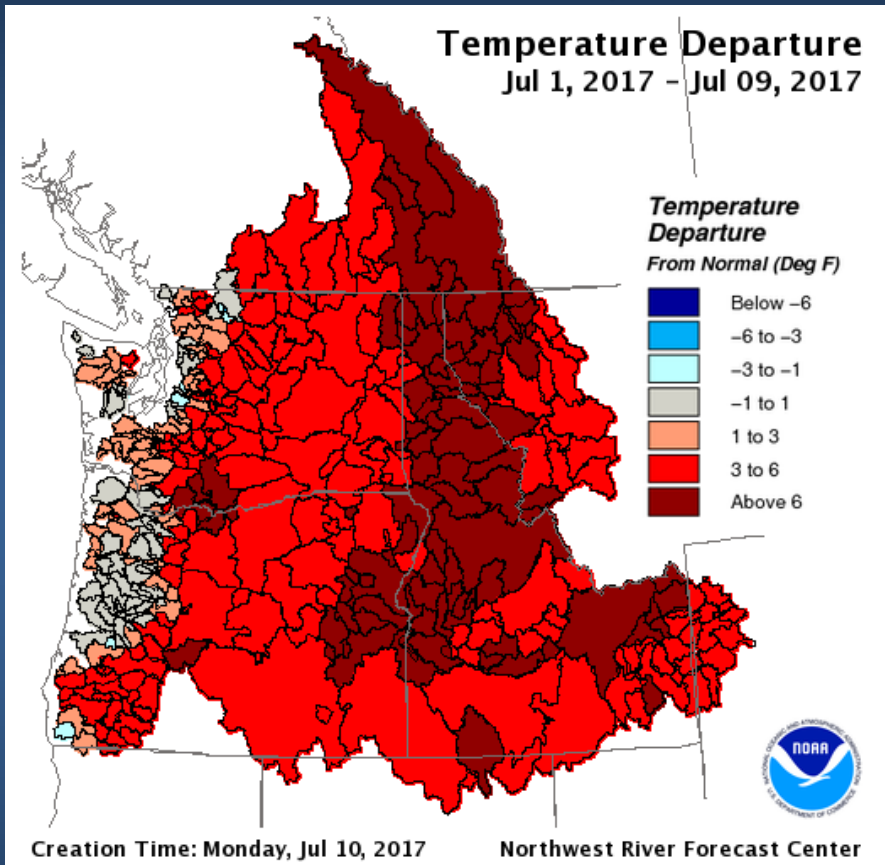


Image sources: www.wrcc.dri.edu & www.nwrfc.noaa.gov



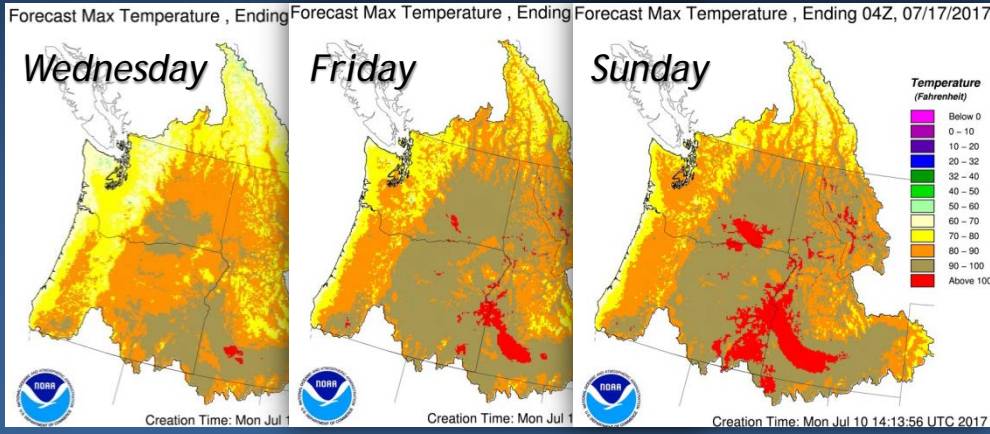
July Outlook

Early July observed temperatures

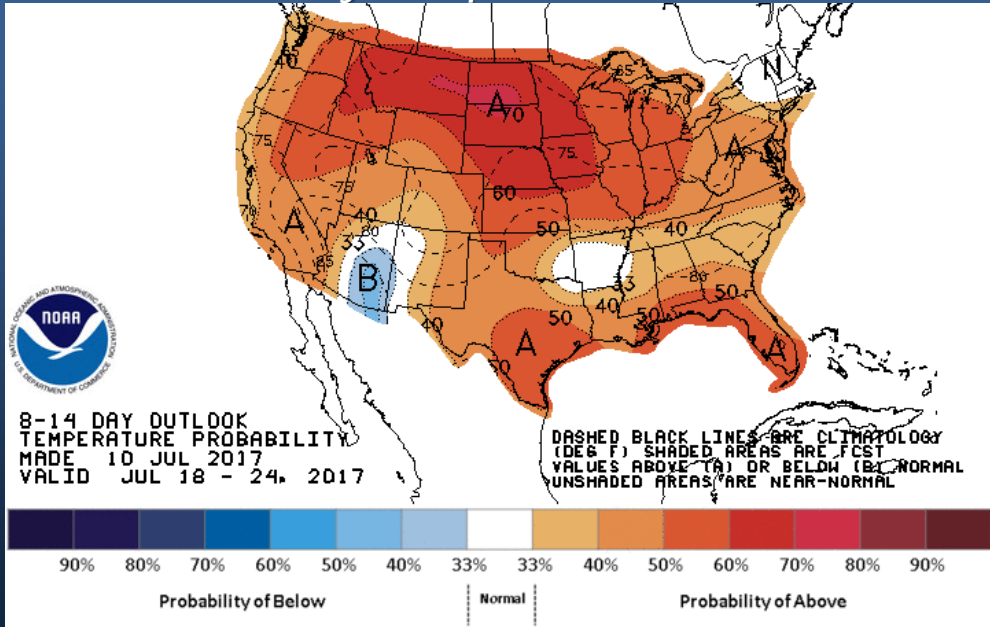


Gradual warming next 7 days

Red Flag conditions possible Central/Eastern OR

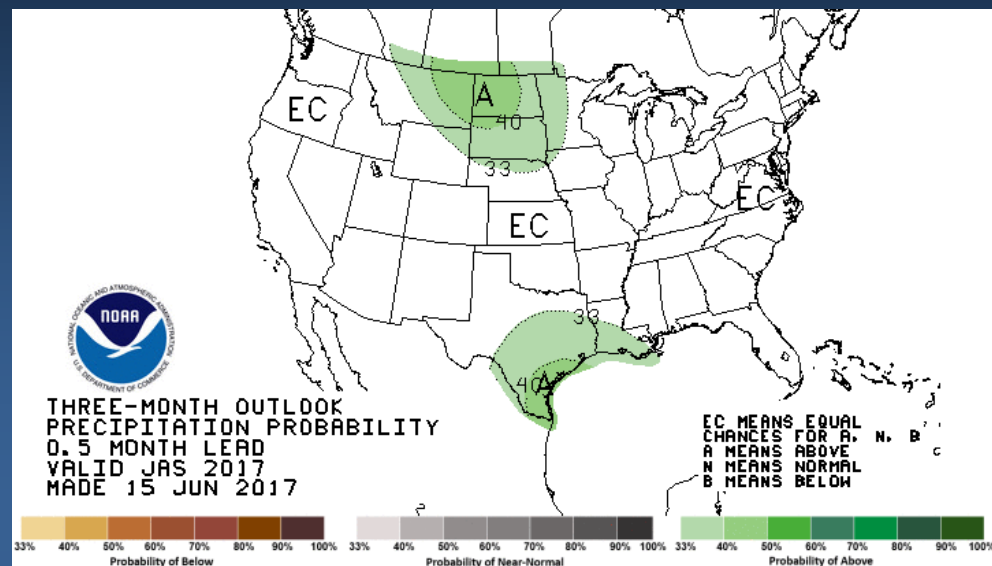


Late July Temperature Outlook



No precipitation likely next 10 days

NOAA Outlook for July-August-September



Precipitation

Temperatures

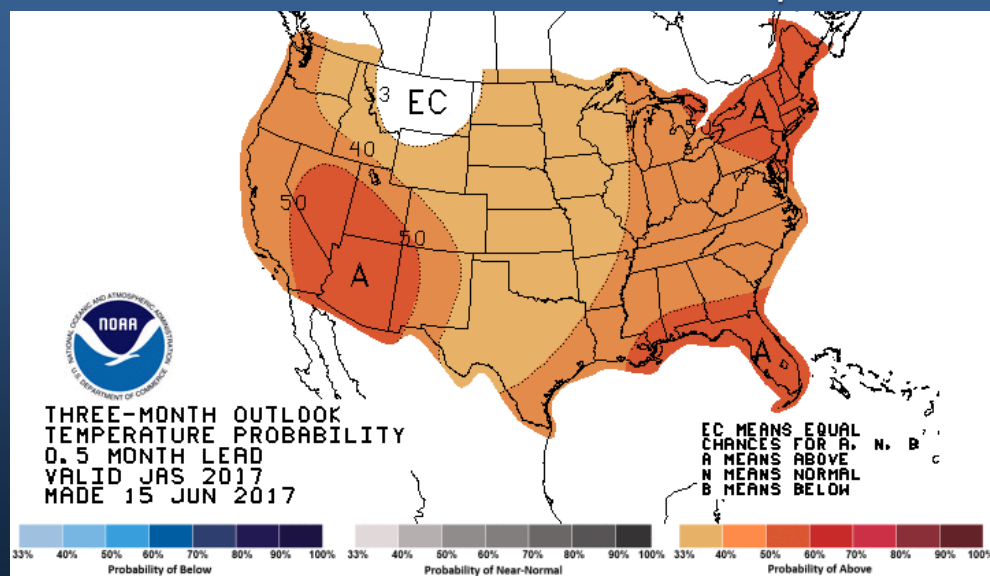
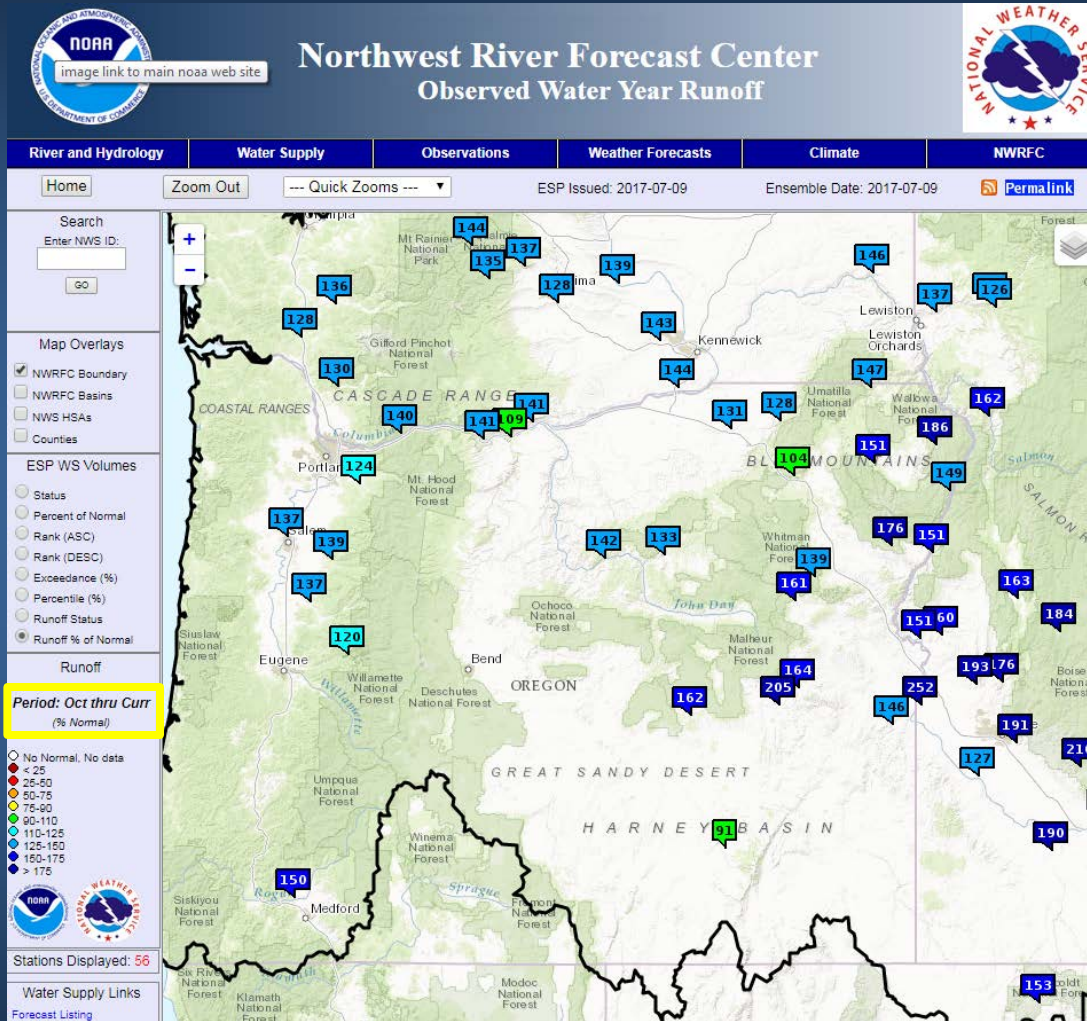


Image source: www.cpc.ncep.noaa.gov



Observed WY Runoff - % of Ave



Klamath Basin (from California-Nevada RFC)

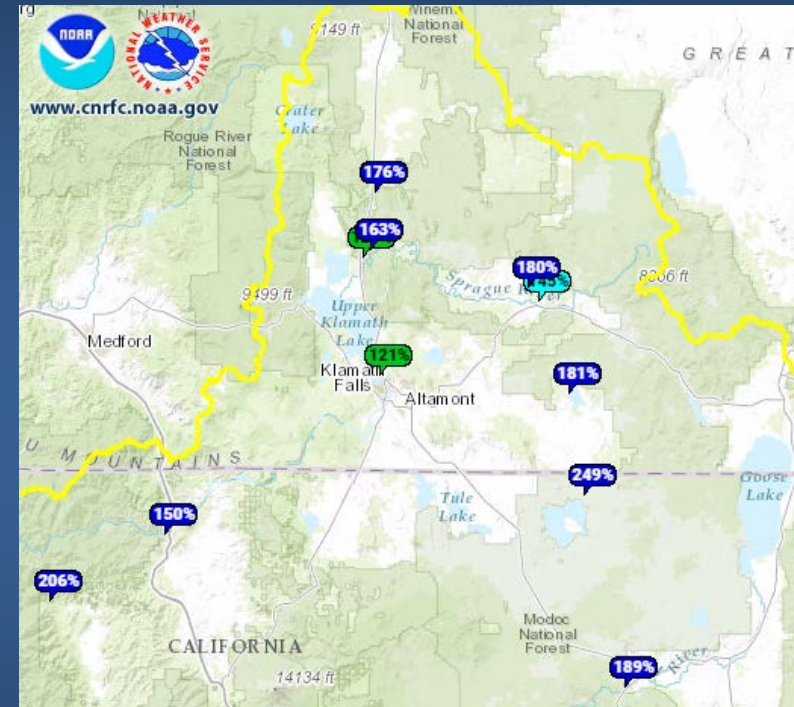


Image sources: www.nwrfc.noaa.gov & www.cnrfc.noaa.gov

Water Supply Availability Committee

July 2017

http://or.water.usgs.gov/data_dir/war_dir/war1604.html

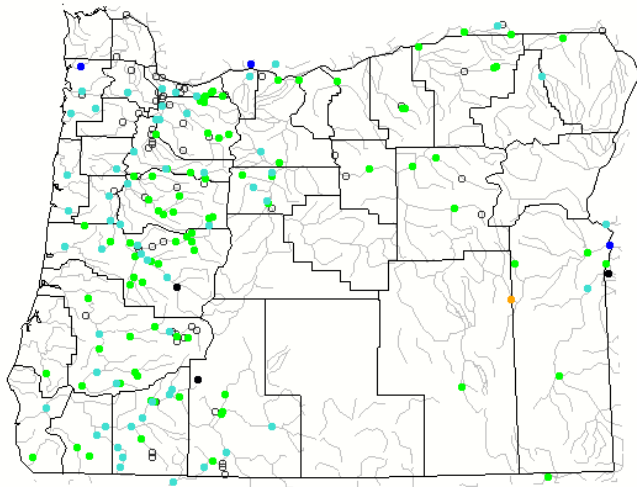
http://or.water.usgs.gov/sw_studies/index.html

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

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

Oregon or Water-Resources Regions

Monday, June 12, 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 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Monday, July 10, 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

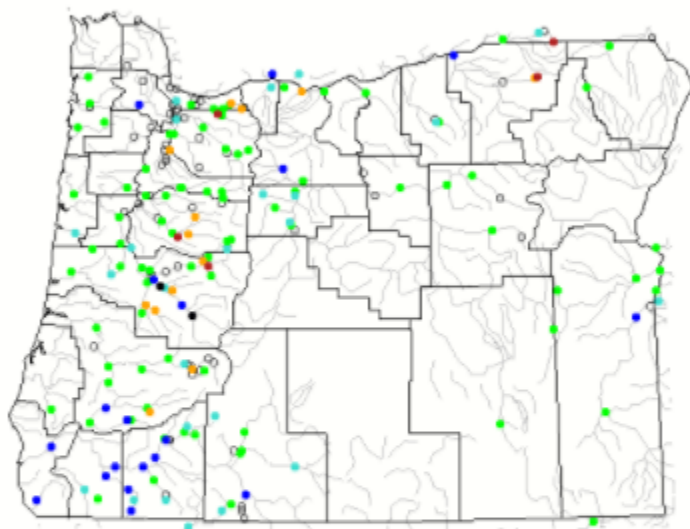
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

WAC July 2017

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, July 10, 2017



For some streams, flow statistics may have been computed from mixed regulated and unregulated flows; this can affect depictions of flow conditions.

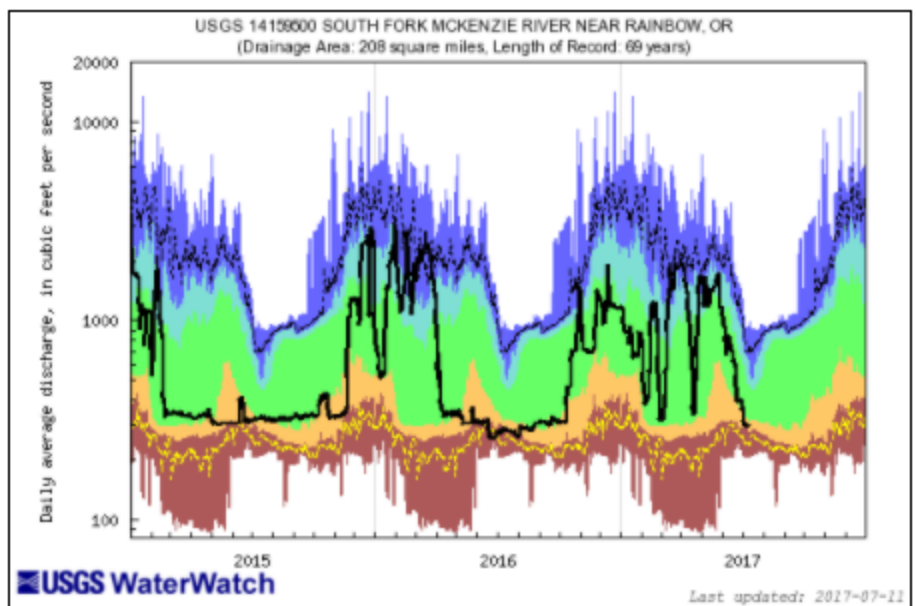


Search USGS streamgage

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

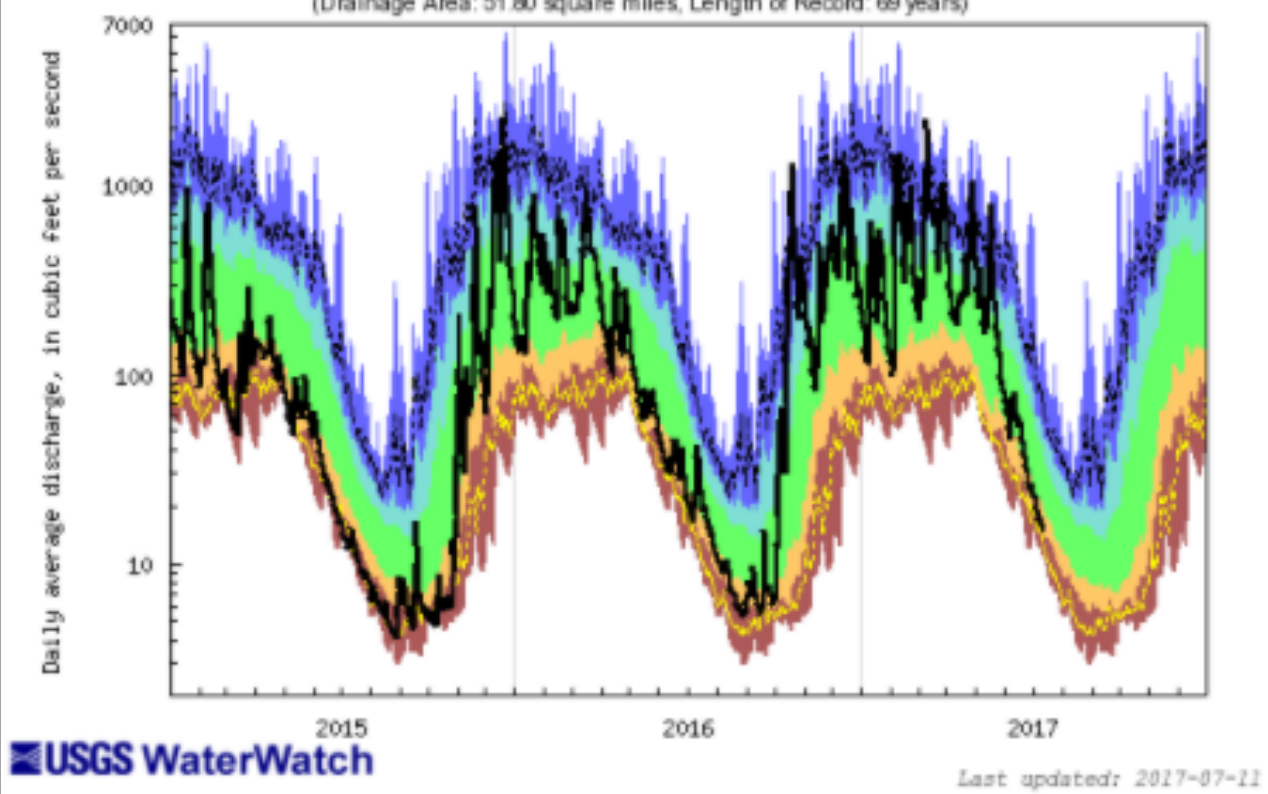
- List of all stations
- Single station
- Nearest stations

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



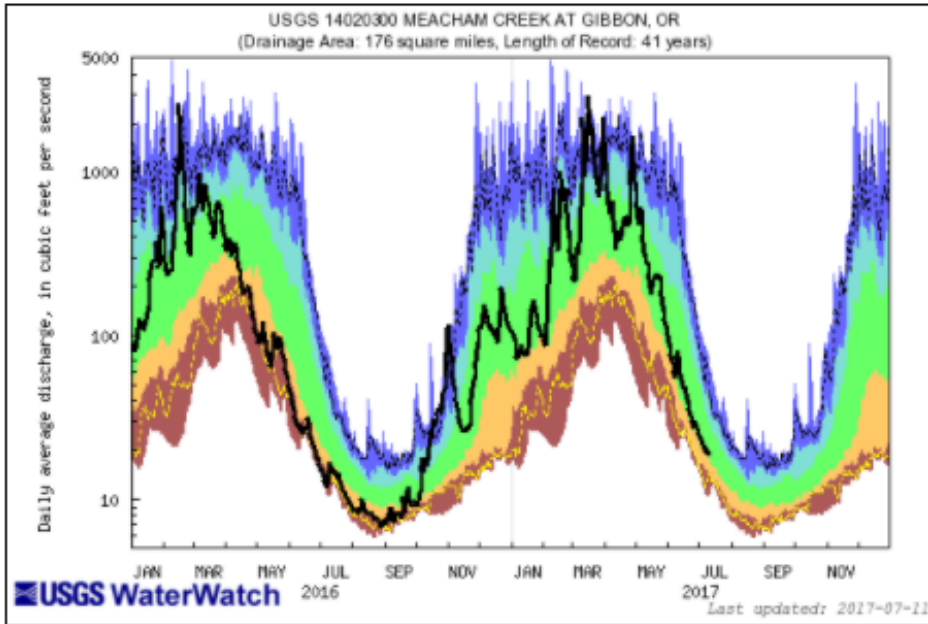
Explanation - Percentile classes						
Lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

USGS 14187000 WILEY CREEK NEAR FOSTER, OR
 (Drainage Area: 51.80 square miles, Length of Record: 69 years)



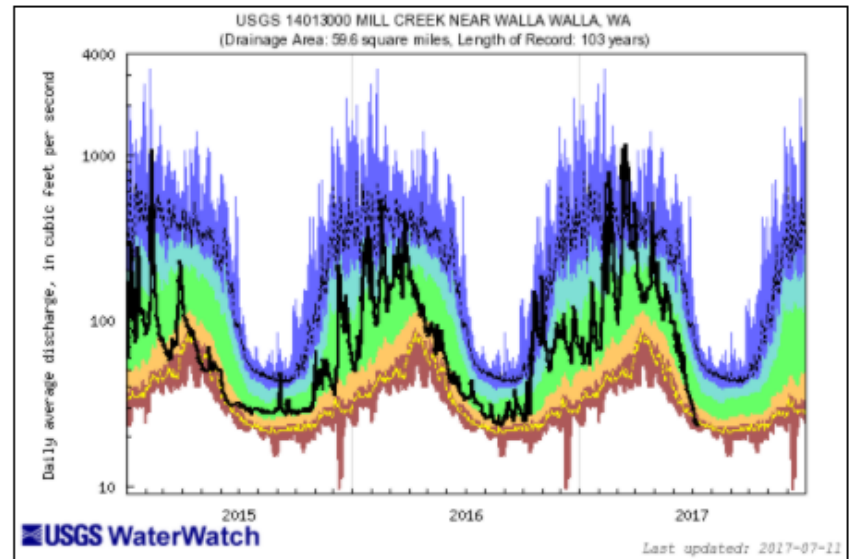
Explanation - Percentile classes						Flow
lowest-10th percentile	5	10-24	25-75	76-90	95	
Much below Normal	Below normal	Normal	Above normal	Much above normal		

Meacham Creek (near Gibbon) and Mill Creek (Walla Walla)

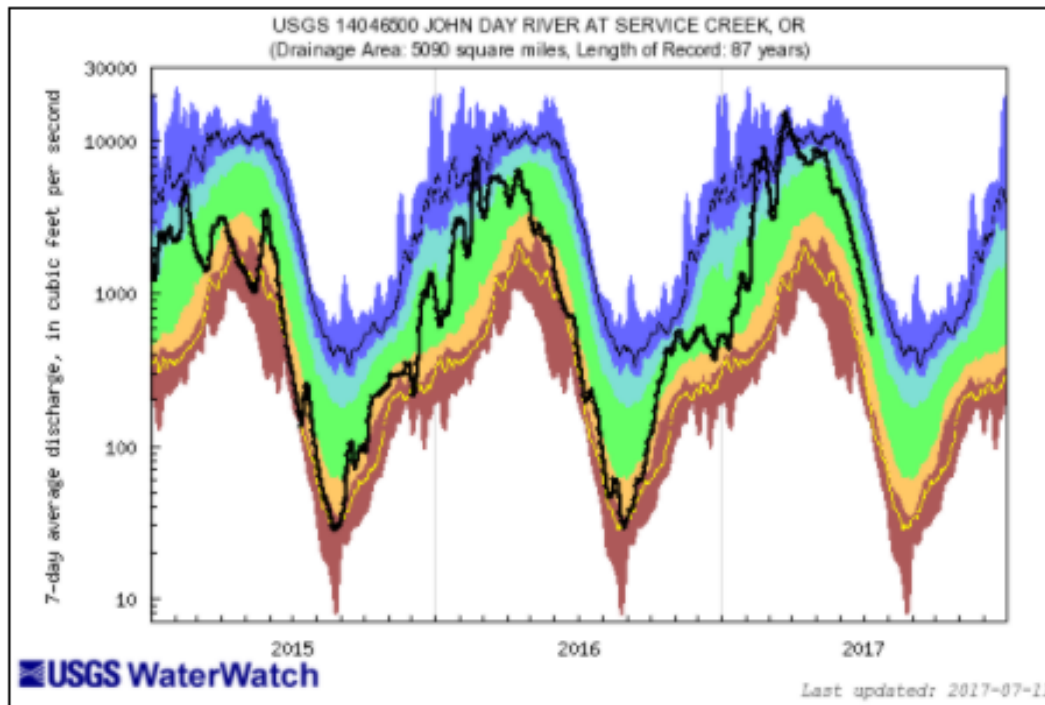


Explanation - Percentile classes						Flow	
lowest-10th percentile	5	10-24	25-75	76-90	95		90th percentile-highest
Much below Normal		Below normal	Normal	Above normal		Much above normal	

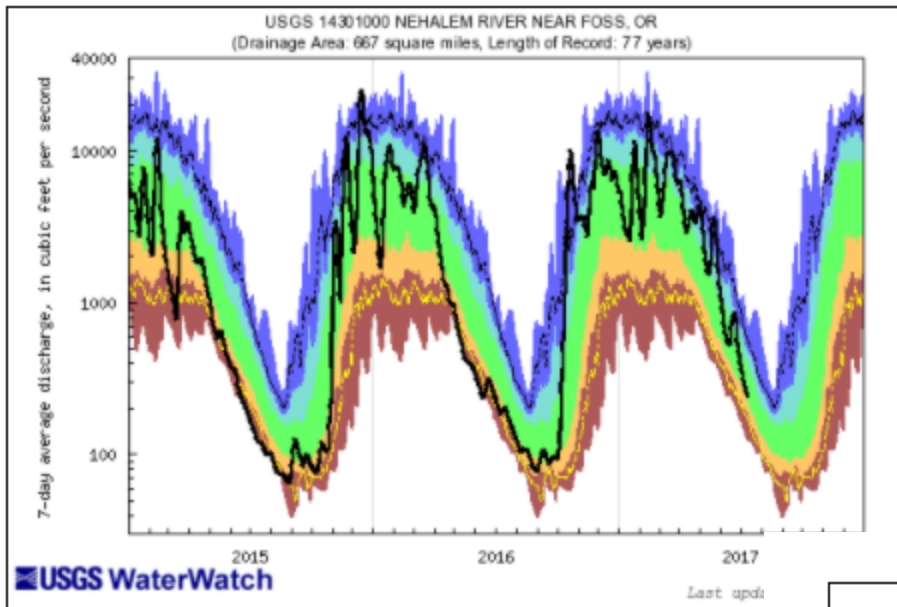
Non Regulated Sites



Explanation - Percentile classes						Flow	
lowest-10th percentile	5	10-24	25-75	76-90	95		90th percentile-highest
Below							

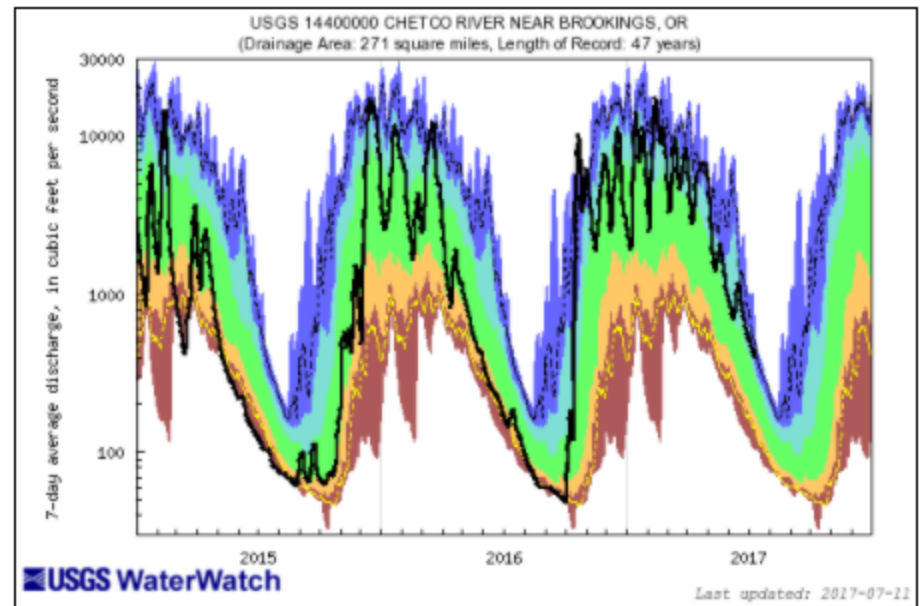


Explanation - Percentile classes						Flow
lowest-10th percentile	5	10-24	25-75	76-90	95	
Much below Normal		Below normal	Normal	Above normal		Much above normal



Explanation - Percentile classes

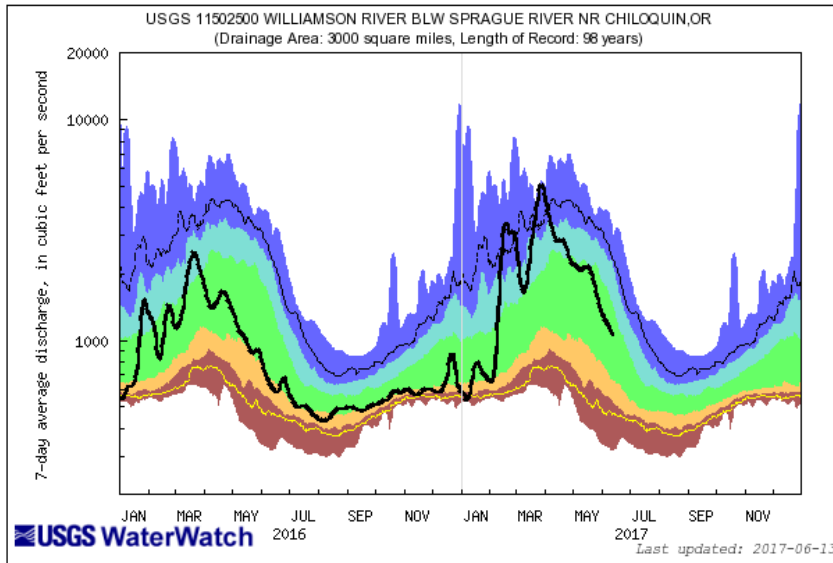
-----	-----	-----	-----	-----	-----	-----	-----
lowest 10th percentile	5	10-24	25-75	76-90	95	90th percentile highest	Flow
Much below Normal	Below normal	Normal	Above normal	Much above normal			



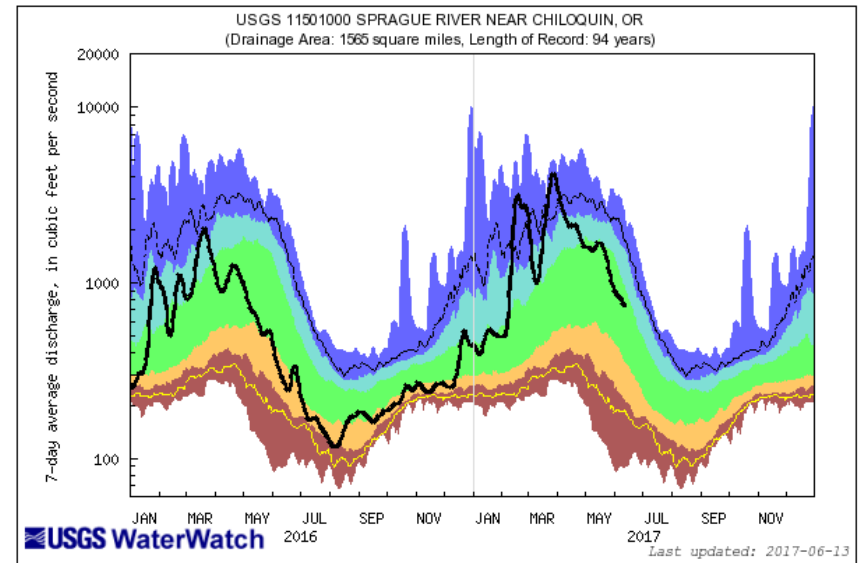
Explanation - Percentile classes

-----	-----	-----	-----	-----	-----	-----	-----
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			

Klamath

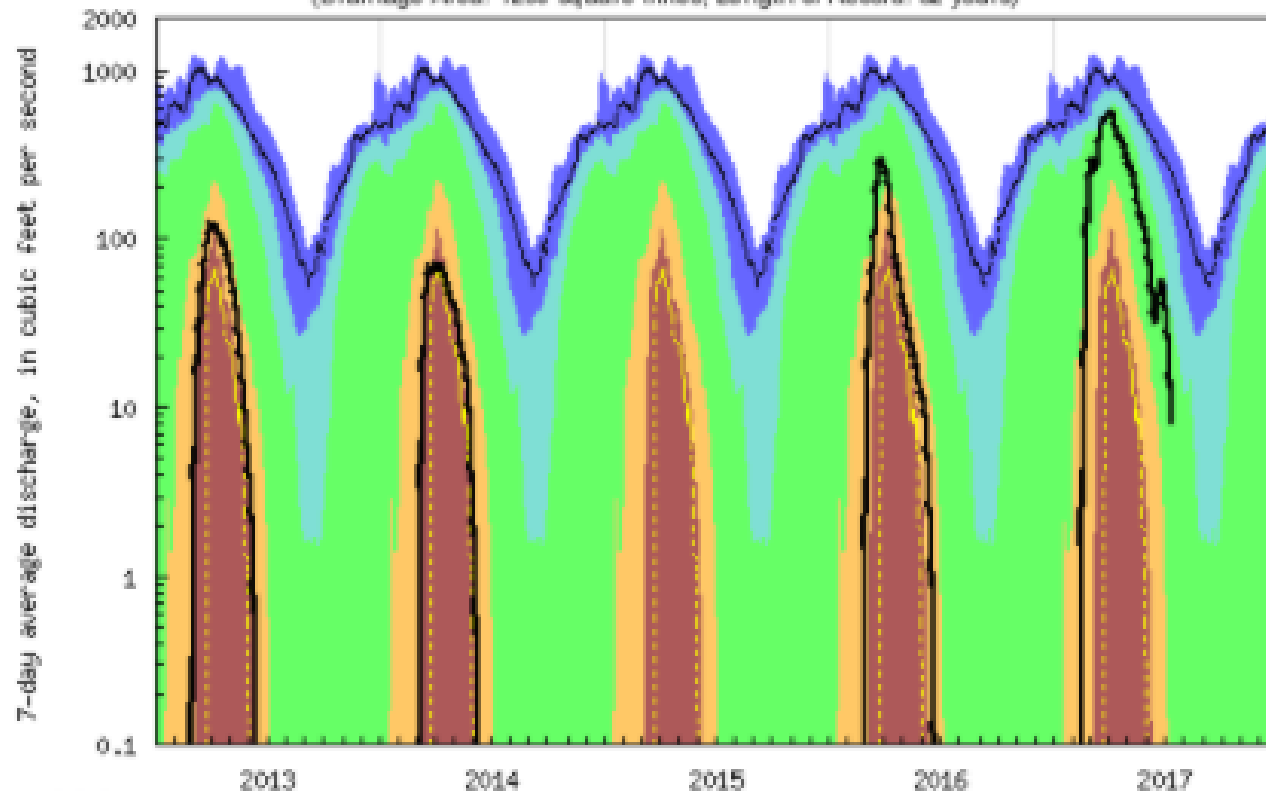


Explanation - Percentile classes						Flow
lowest-10th percentile	5	10-24	25-75	76-90	95	
Much below Normal		Below normal	Normal	Above normal	Much above normal	



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

USGS 11483500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR
 (Drainage Area: 1290 square miles, Length of Record: 62 years)

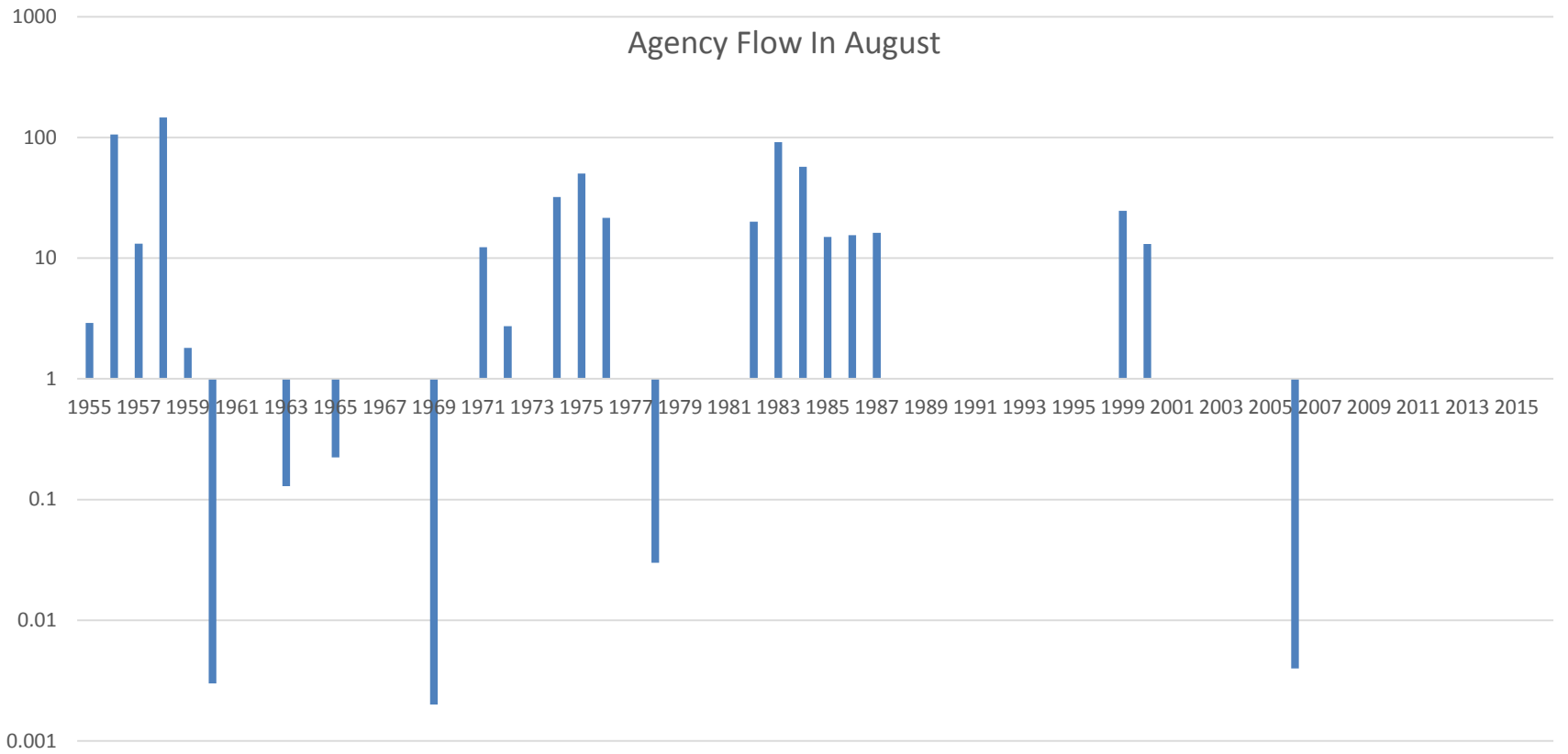


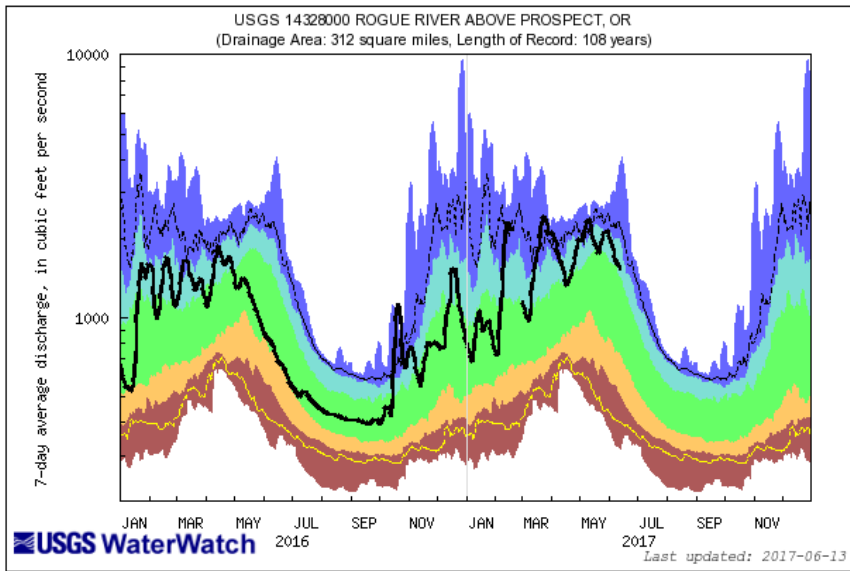
USGS WaterWatch

Last updated: 2017-07-11

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

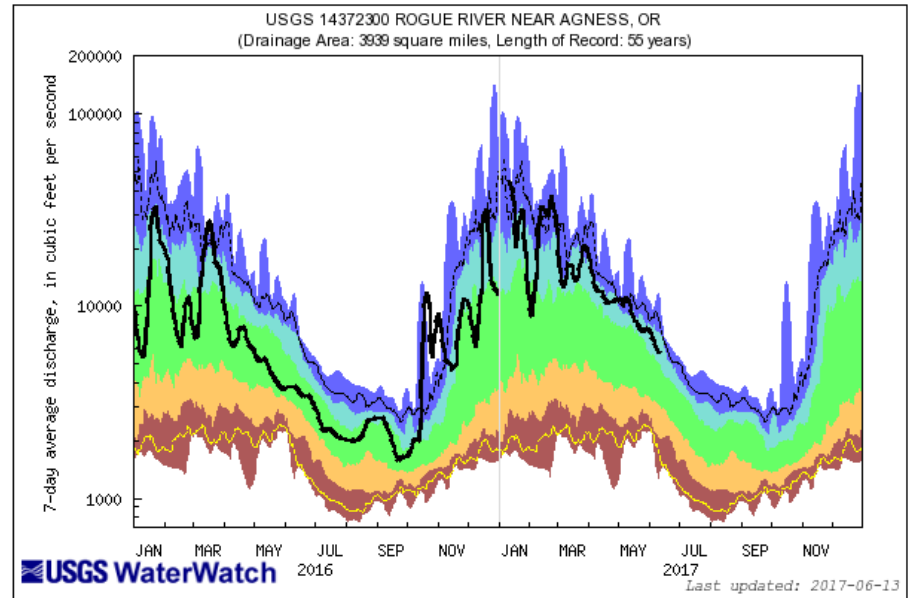
Agency Flow In August





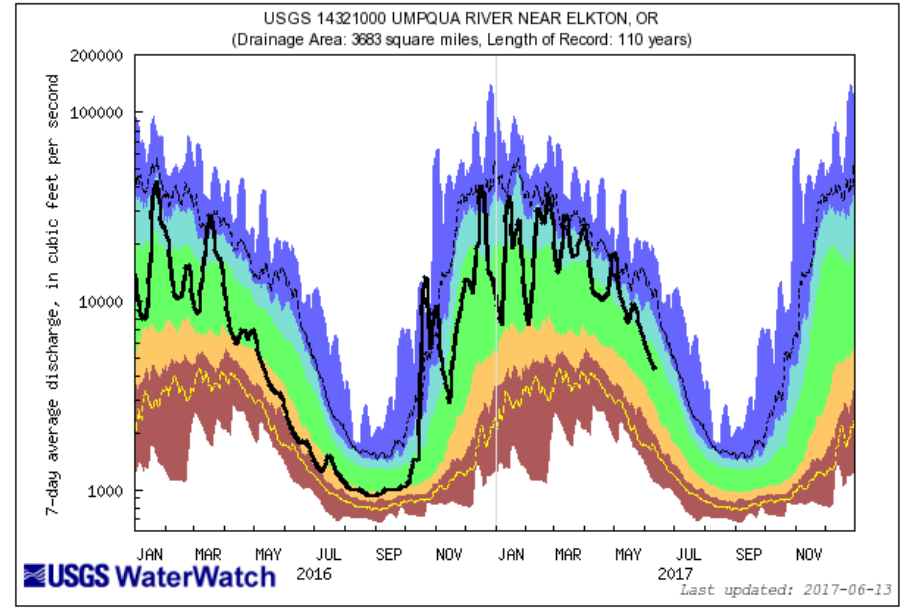
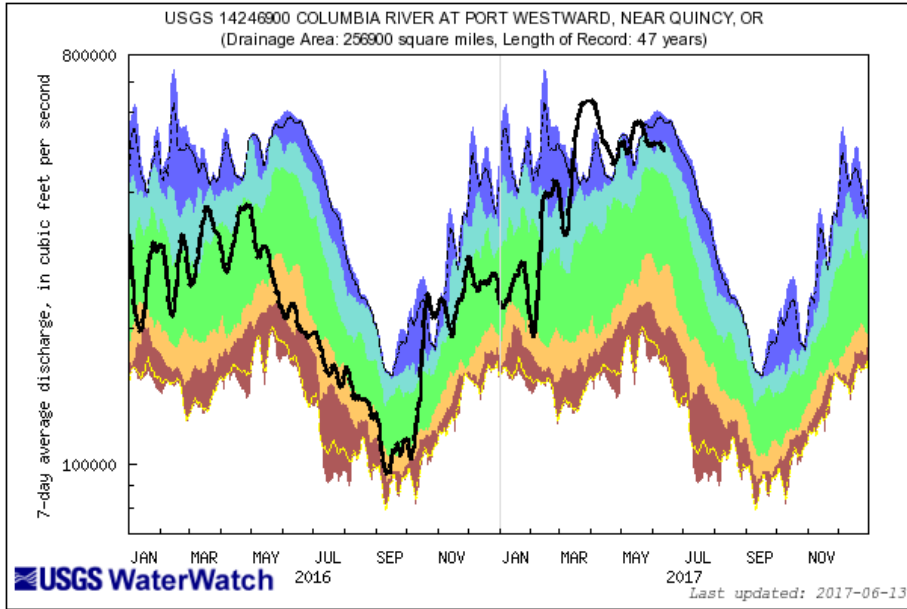
Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95 90th percentile-highest	Flow
Much below Normal	Below normal	Normal	Above normal	Much above normal		

Southern Oregon



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		

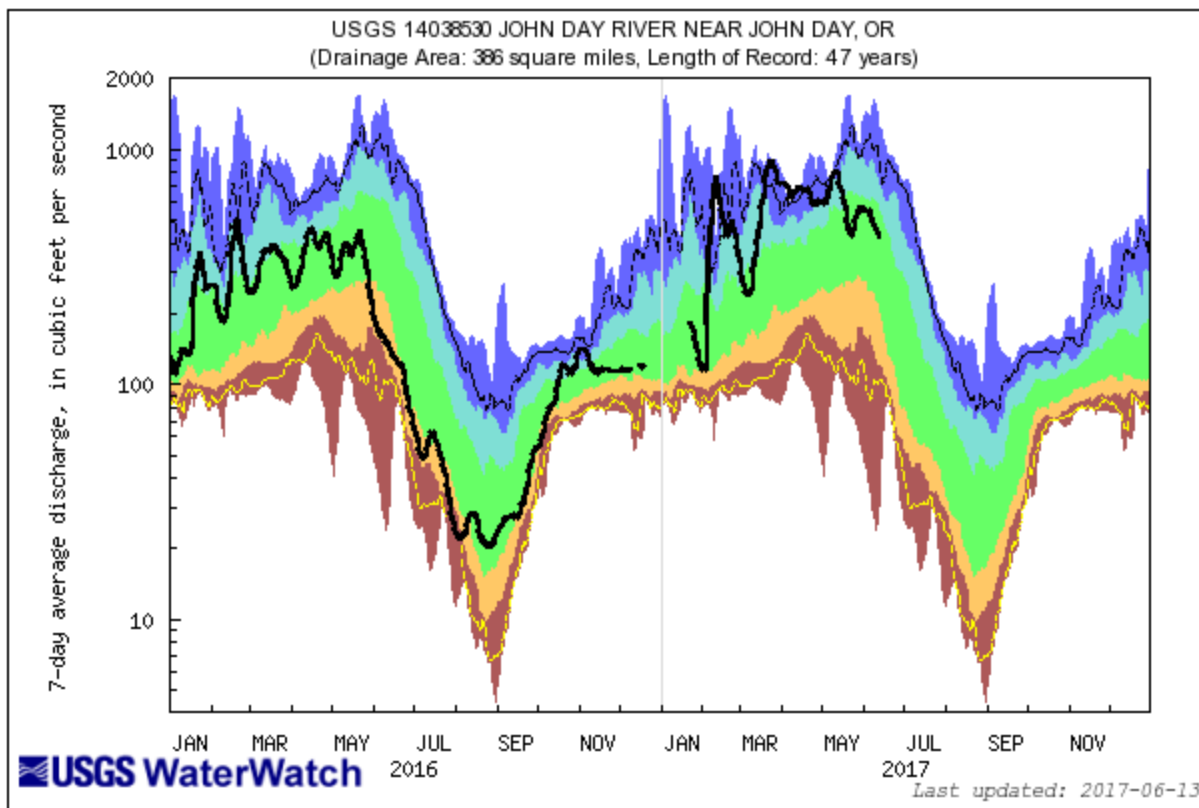
Outflows



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

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

John Day



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

Water Availability Report linked below

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

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

Station	NRCS SWSI Basin	----- Monthly mean discharge -----		Change in dis- charge from previous month (percent)	----- Accumulated Runoff For the Period Oct. to June ----- Percent of average
		Cubic feet per second	Percent of average		
Donner Und Blitzen nr Frenchglen	Harney	269	91	-28	93
(*)Deep Creek above Adel	Lake County	279	140	-62	207
(*)Chewaucan River near Paisley	Lake County	337	134	-59	200
Williamson River near Chiloquin	Klamath	958	101	-49	127
Owyhee River near Rose	Owyhee	1,037	129	-60	155
(*)NF Malheur River near Beulah	Malheur	204	124	-50	160
Grande Ronde R at Troy	Grande Ronde Powder/Burnt	6,660	126	-26	149
Umatilla River nr Gibbon	Umatilla Lower John Day	110	62	-76	134
John Day River at Service Crk	Upper John Day	2,147	86	-65	144
(*)Little Deschutes River nr LaPine	Upper Deschutes	303	121	-39	132
Hood River nr Hood River	Lower Deschutes Mt. Hood	1,118	132	-43	122
Willamette River at Salem	Willamette	14,846	101	-51	136
Wilson River near Tillamook	North Coast	399	102	-56	146
Umpqua River near Elkton	Rogue/Umpqua	3,856	105	-54	154
Rogue River near Agness	Rogue/Umpqua	5,236	139	-40	195
SF Coquille River at Powers	South Coast	174	84	-59	172
Chetco River near Brookings	South Coast	774	105	-42	158

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

7/18/2017

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

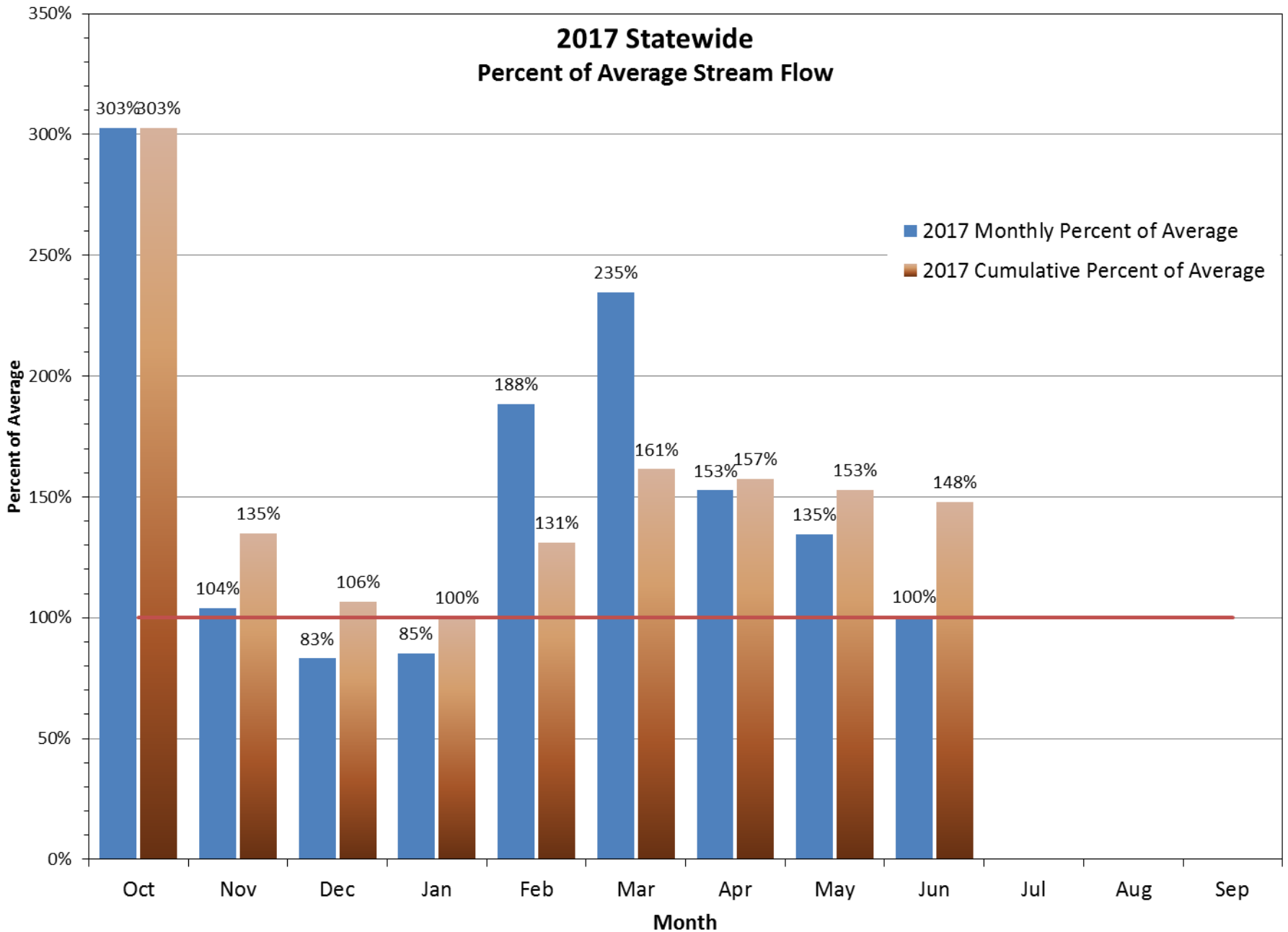
Surface Water Conditions Report

Water Supply Availability Committee

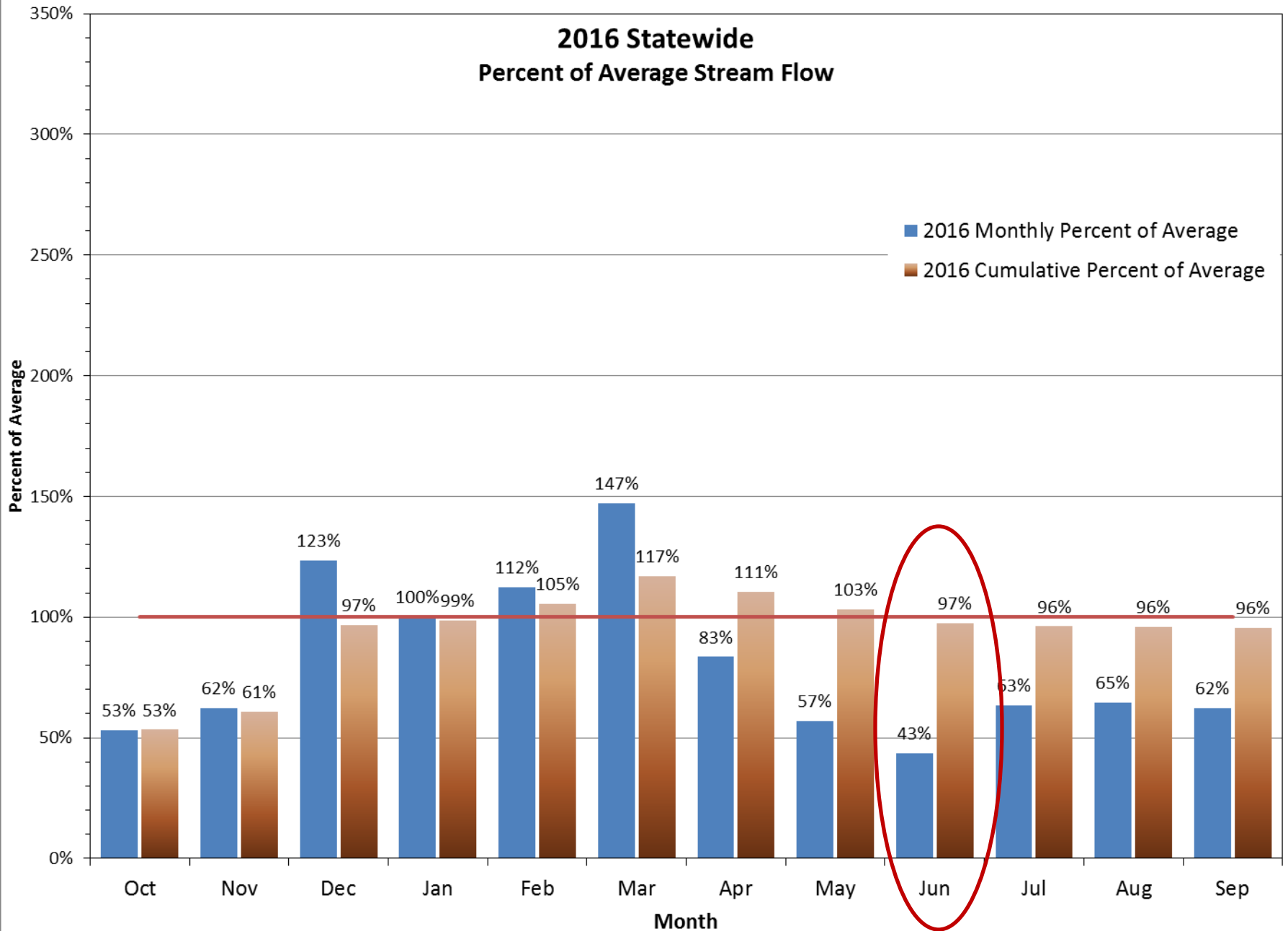


Ken Stahr
Oregon Water Resources
Department
July 11, 2017

2017 Statewide Percent of Average Stream Flow



2016 Statewide Percent of Average Stream Flow



Percent of Average Streamflow Month of June, 2017

Percent of Average Streamflow

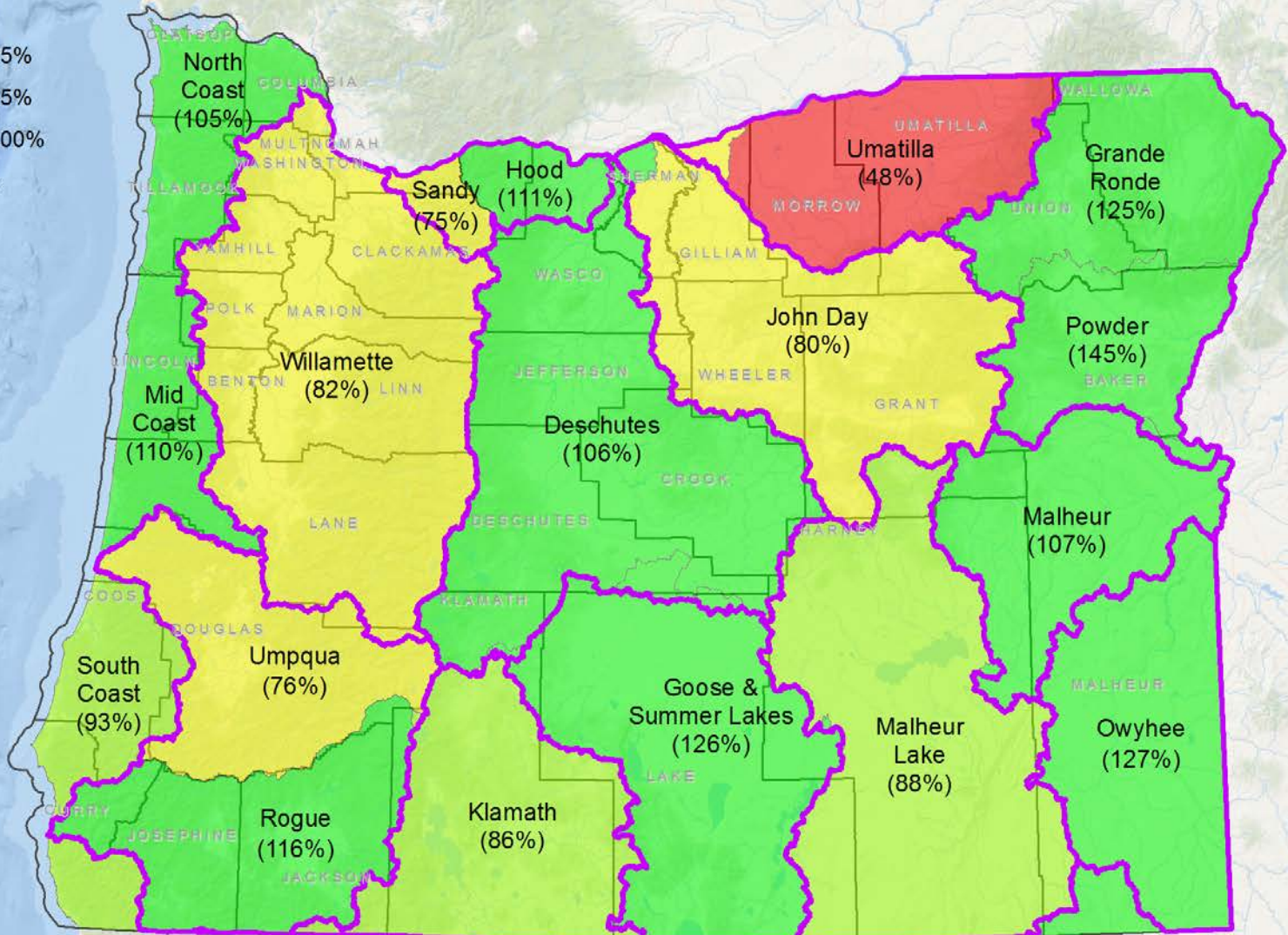
WRD basin

- < 50%
- 50% - 65%
- 66% - 85%
- 86% - 100%
- > 100%

NRCS Basin



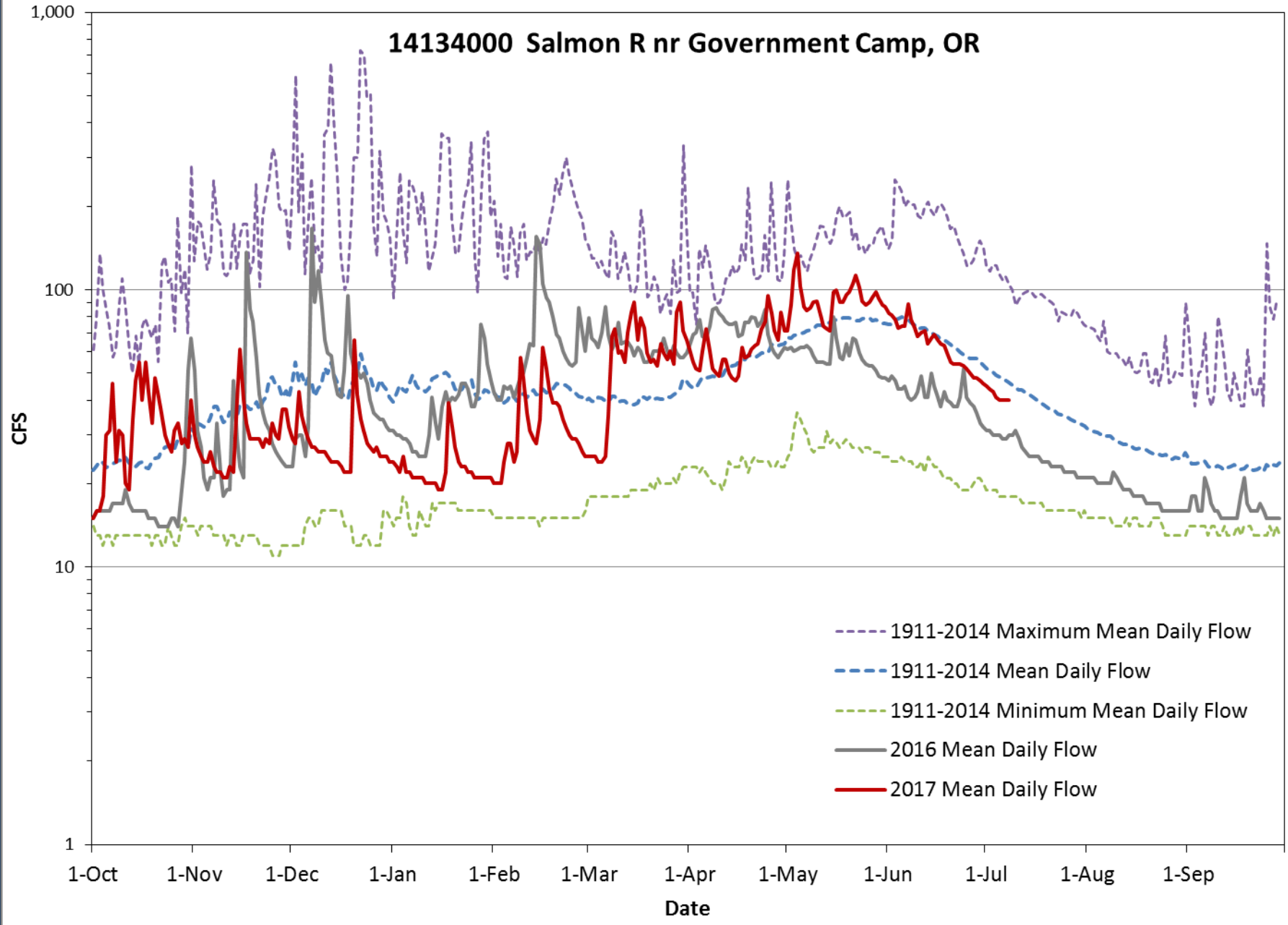
County



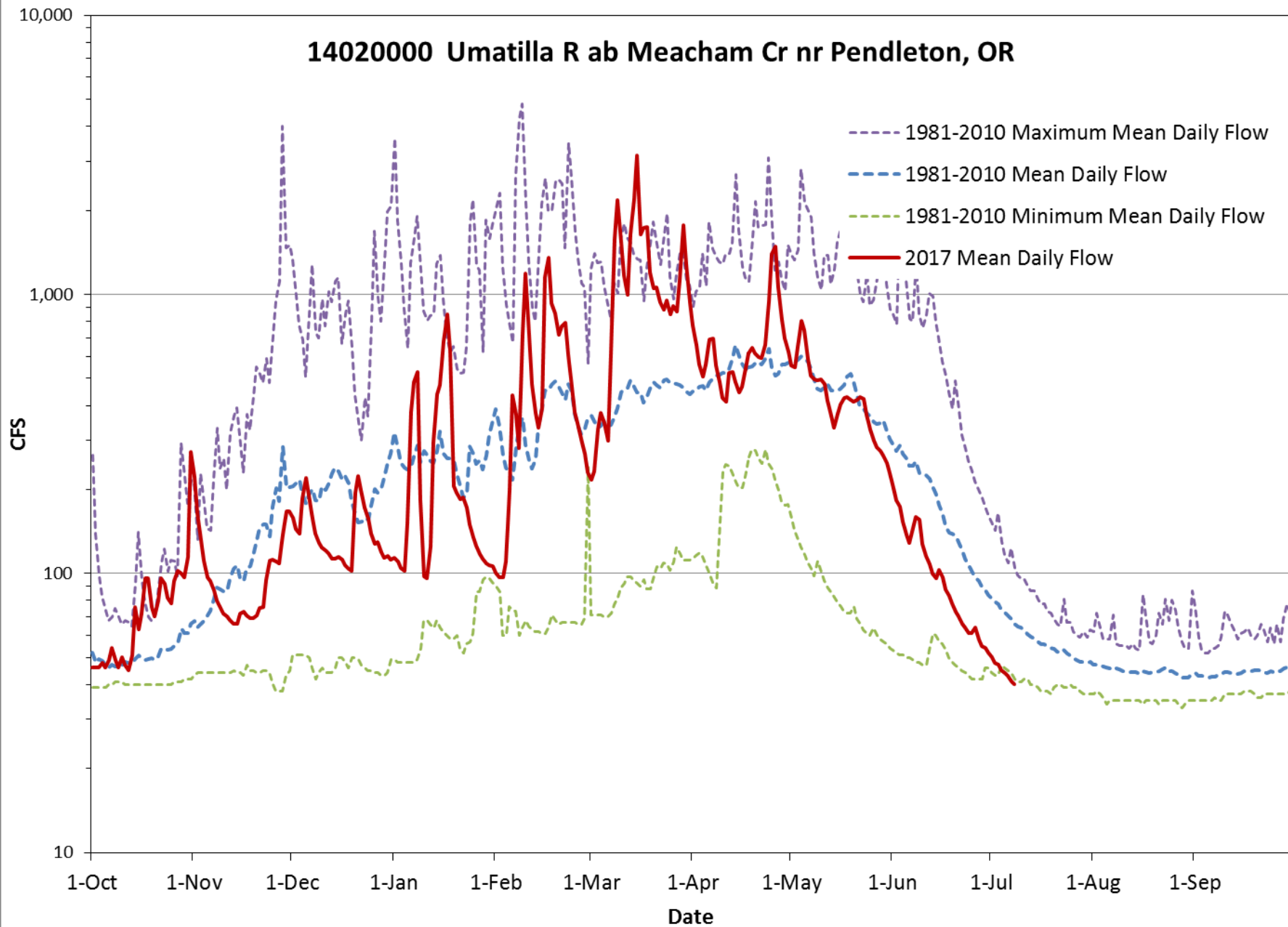
Basin	Water Year % of average thru June	% of average for June	% of average for 07/05/2017
West Side	147%	94%	90%
East Side	148%	105%	81%



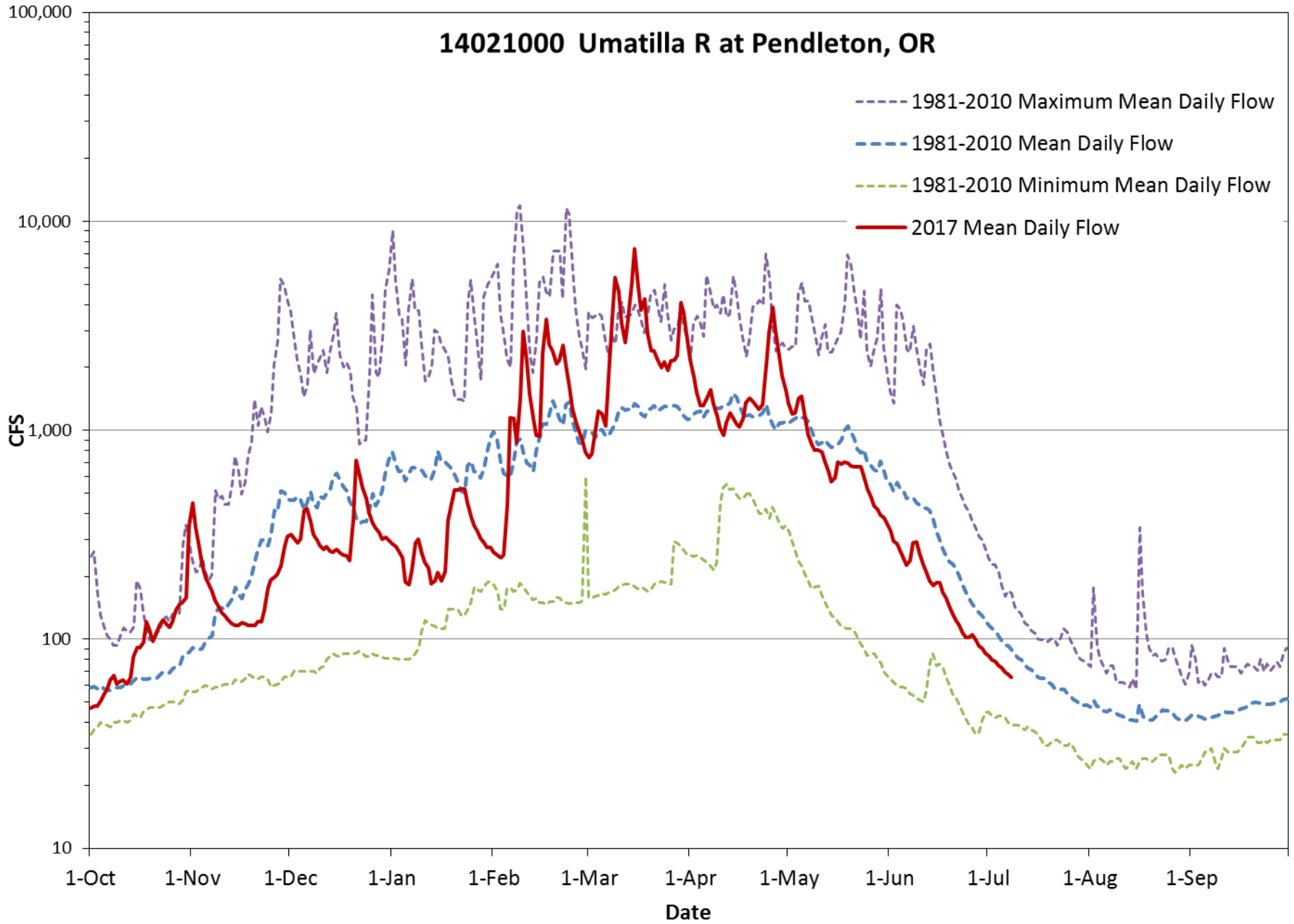
14134000 Salmon R nr Government Camp, OR



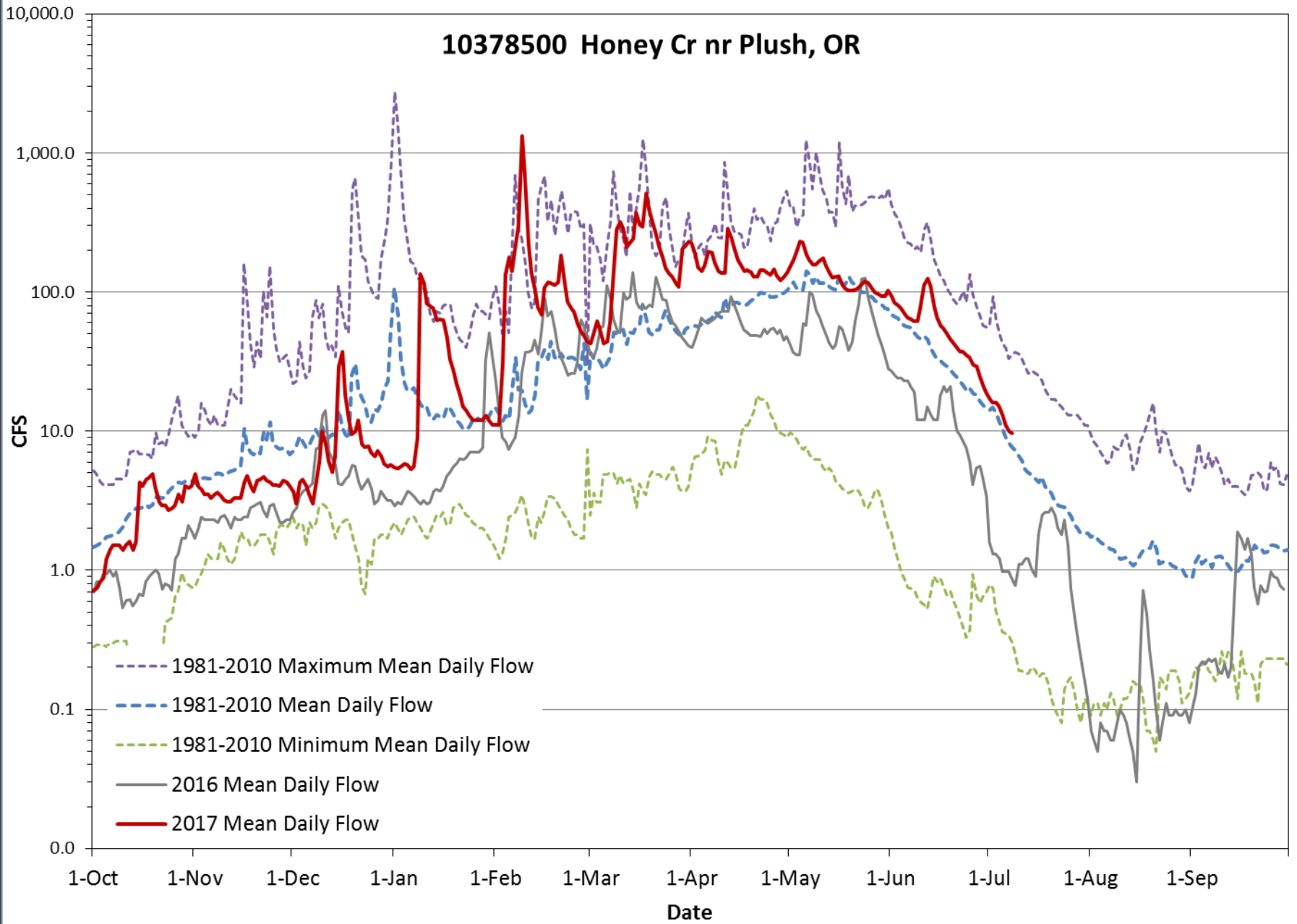
14020000 Umatilla R ab Meacham Cr nr Pendleton, OR



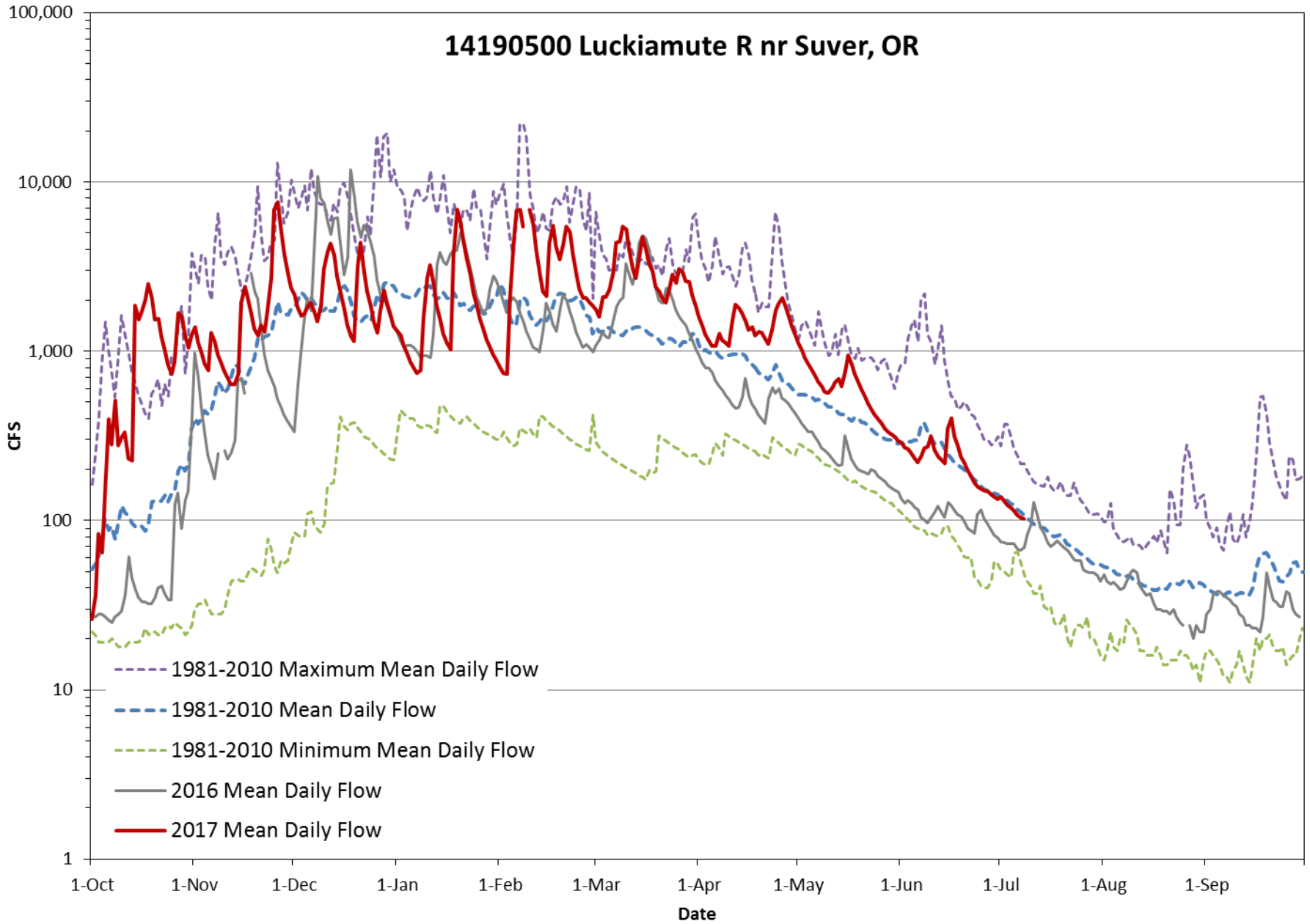
14021000 Umatilla R at Pendleton, OR



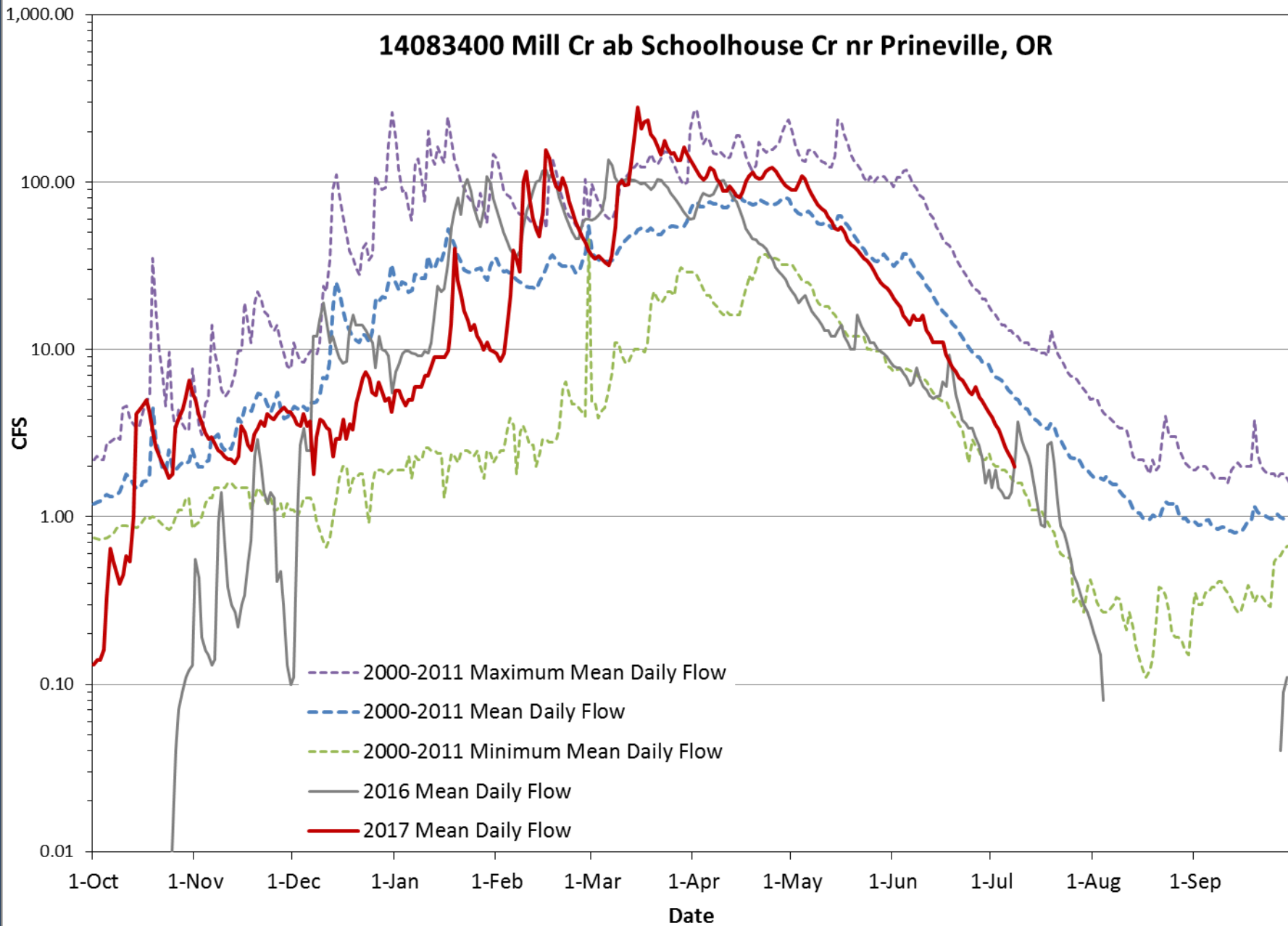
10378500 Honey Cr nr Plush, OR



14190500 Luckiamute R nr Suver, OR



14083400 Mill Cr ab Schoolhouse Cr nr Prineville, OR



Storage

Reservoir Storage Summary for the end of June, 2017

Percent of Average Storage

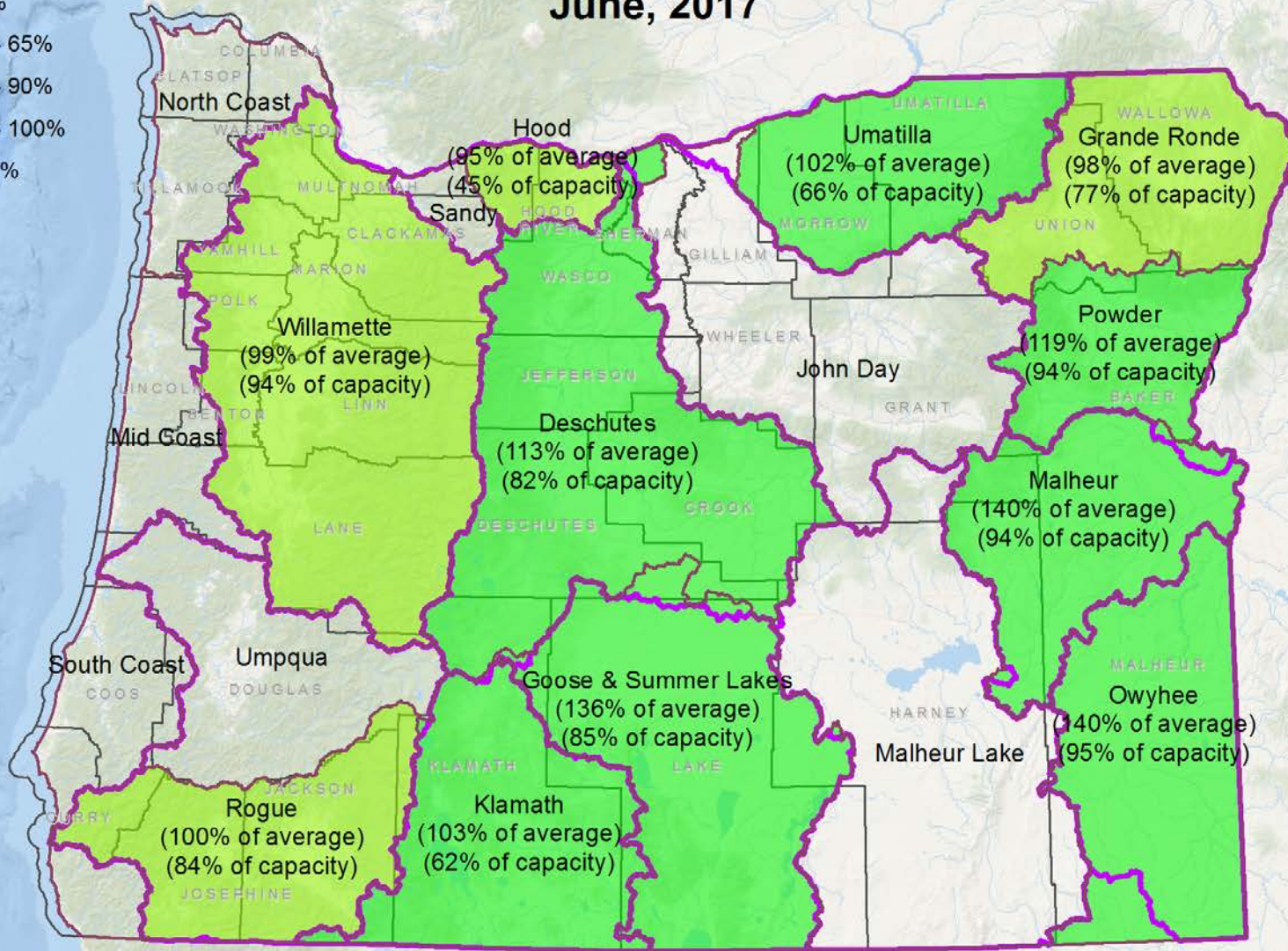
WRD basin

- < 50%
- 50% - 65%
- 66% - 90%
- 91% - 100%
- > 100%

NRCS Basin

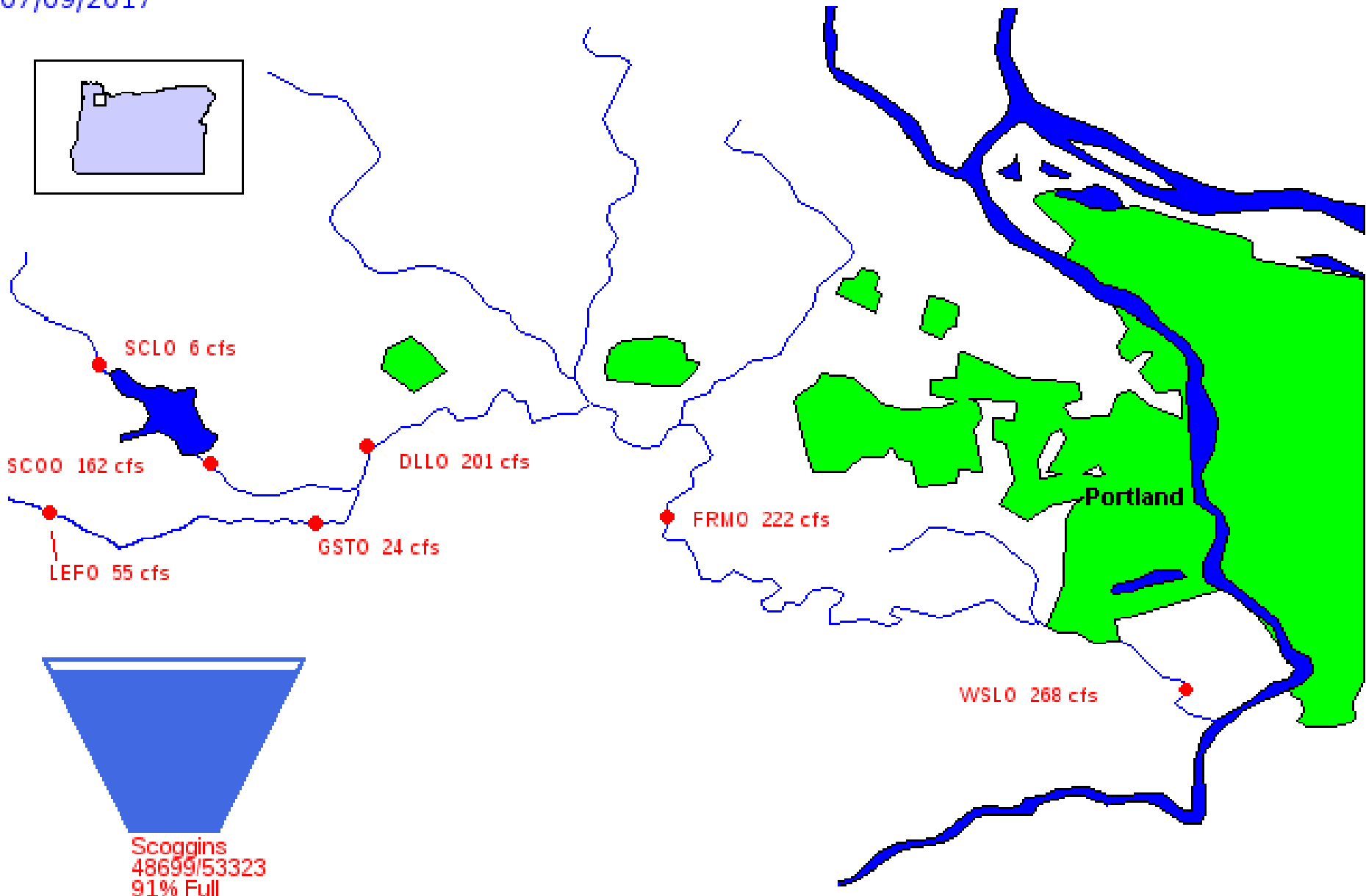
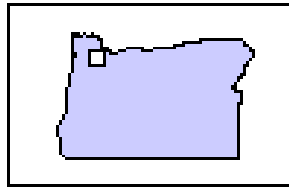


County



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

07/09/2017



The Willamette Basin

LEGEND

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

Overview

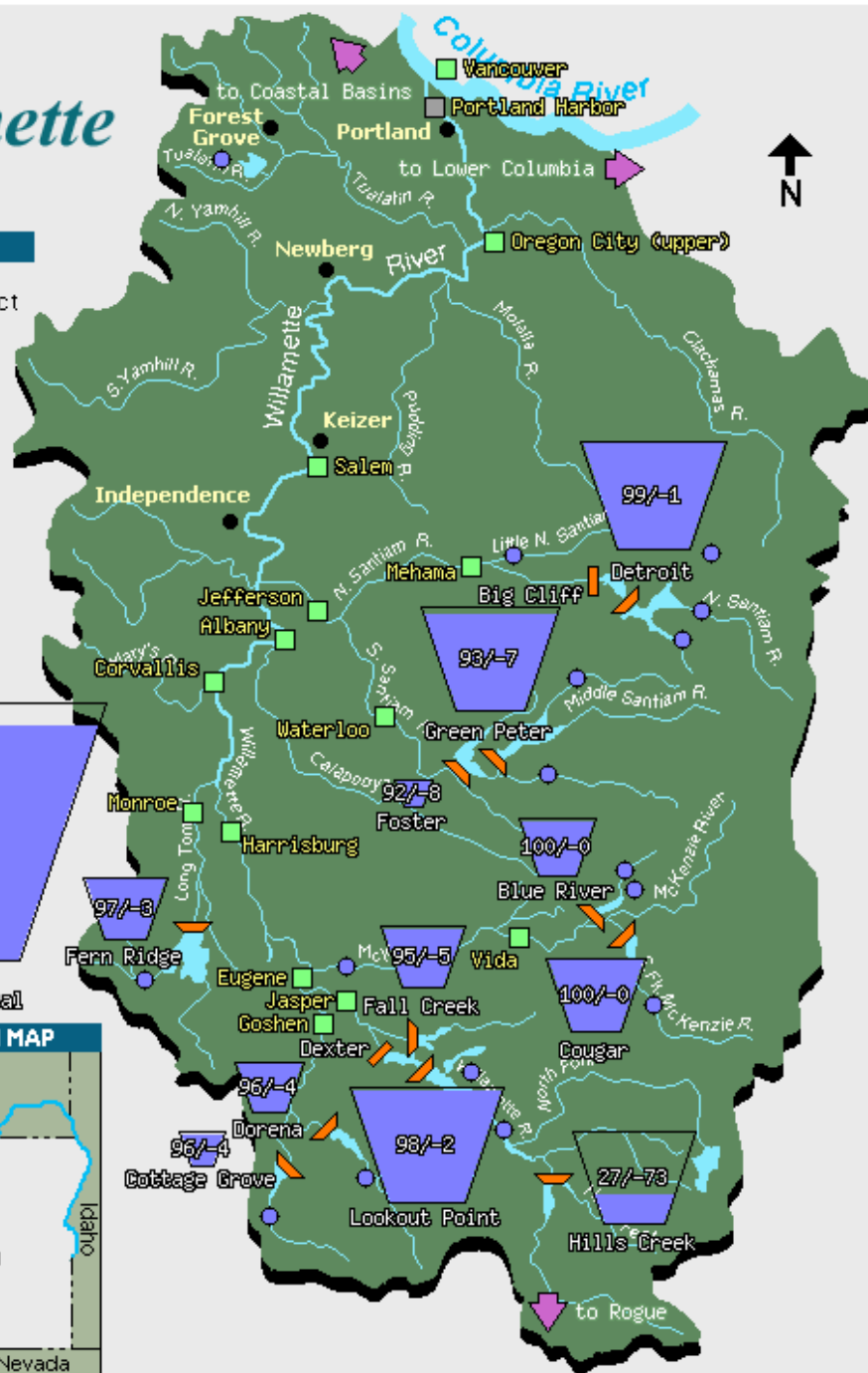
Annual



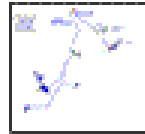
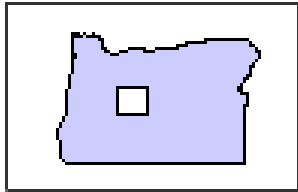
Willamette Total



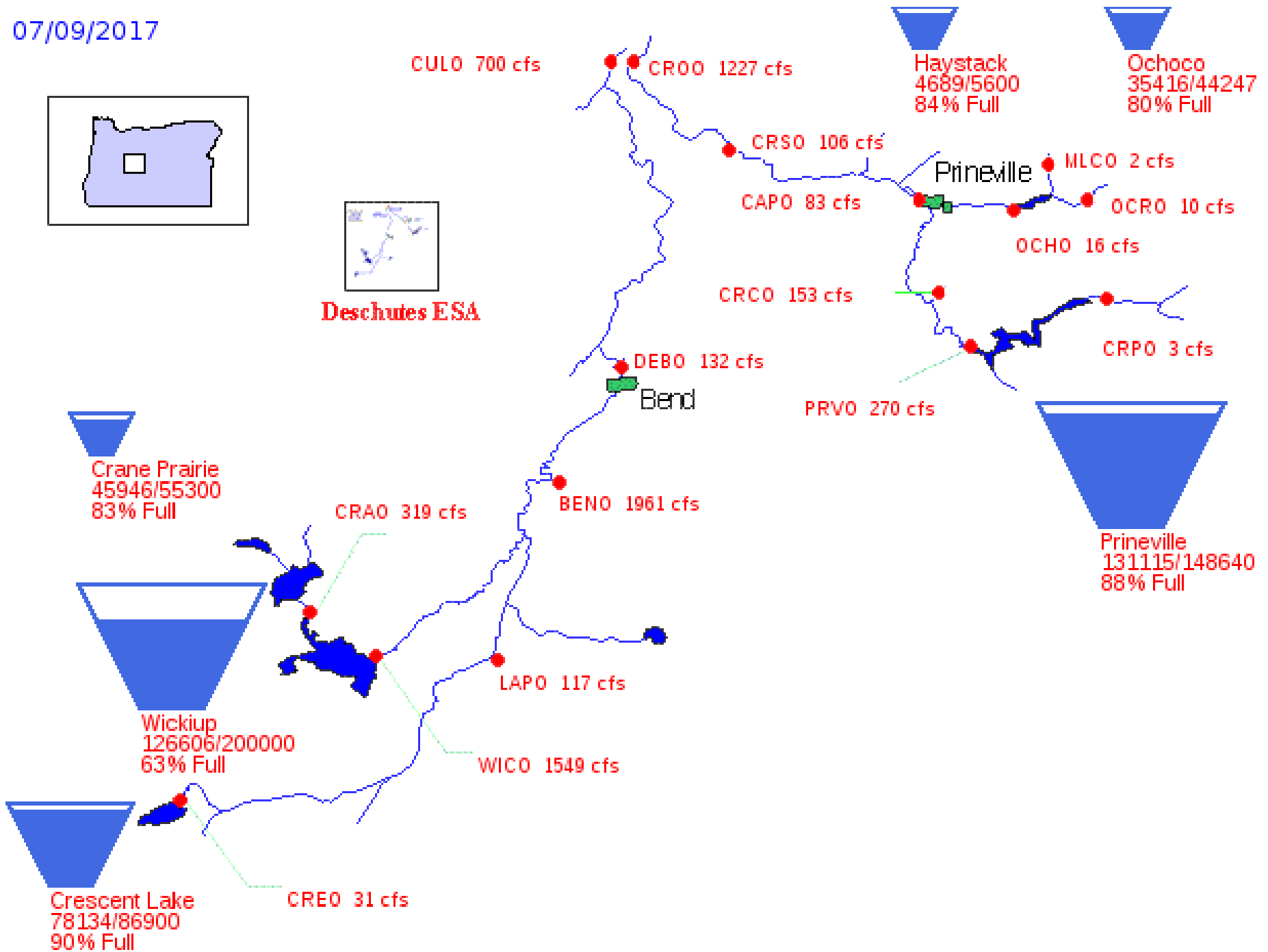
BASIN LOCATION MAP



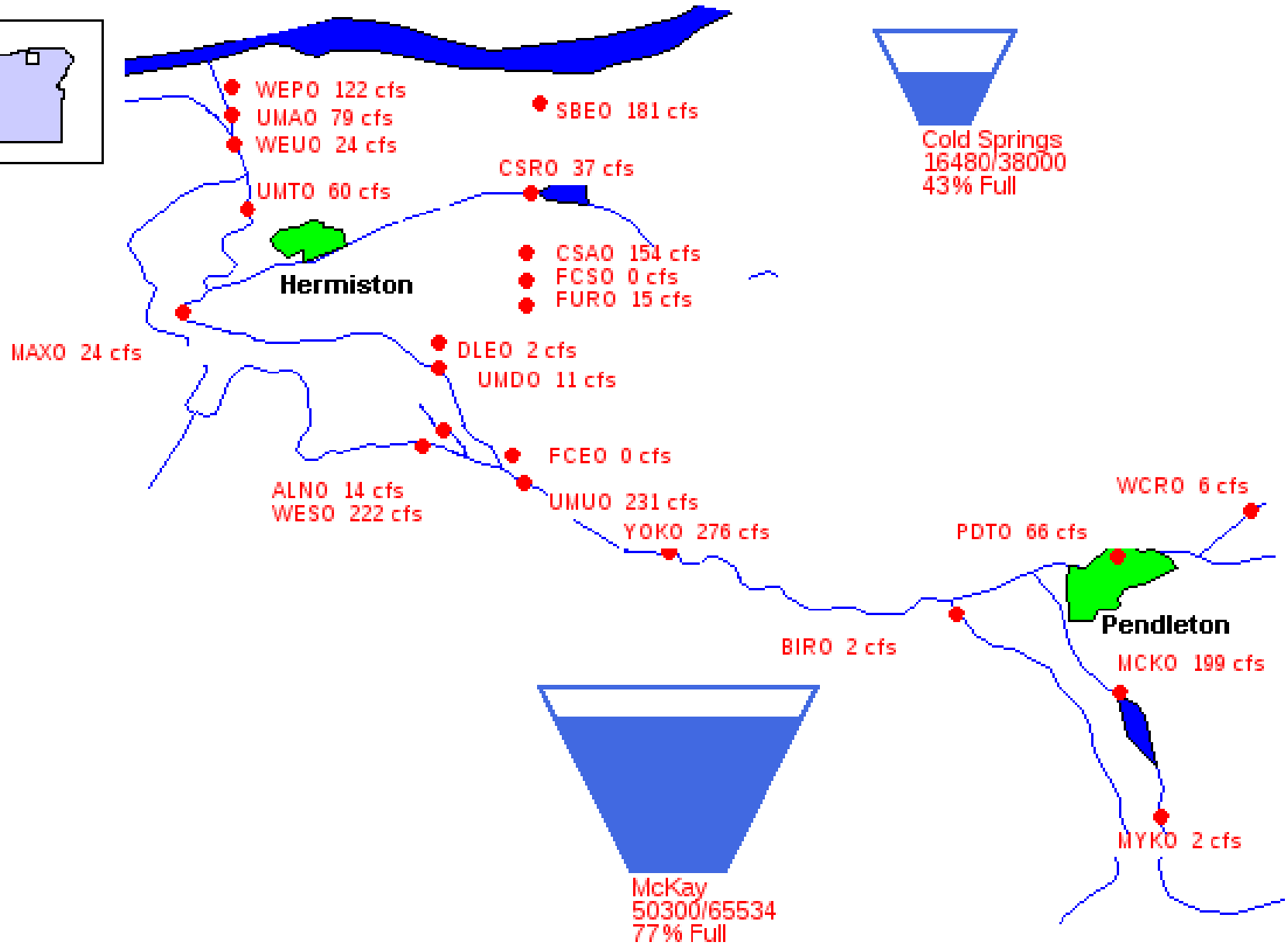
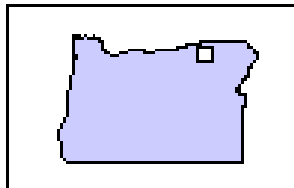
07/09/2017

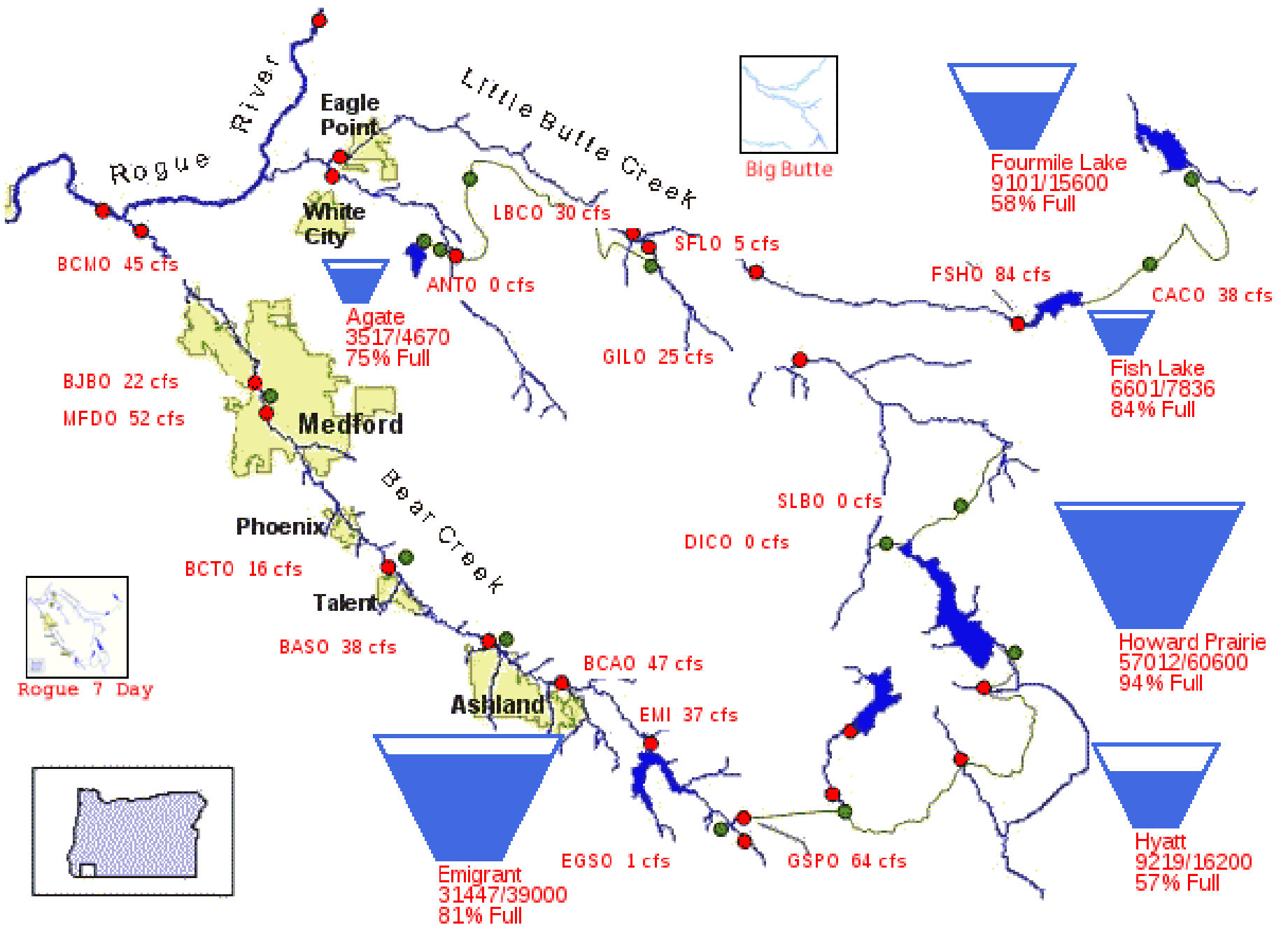


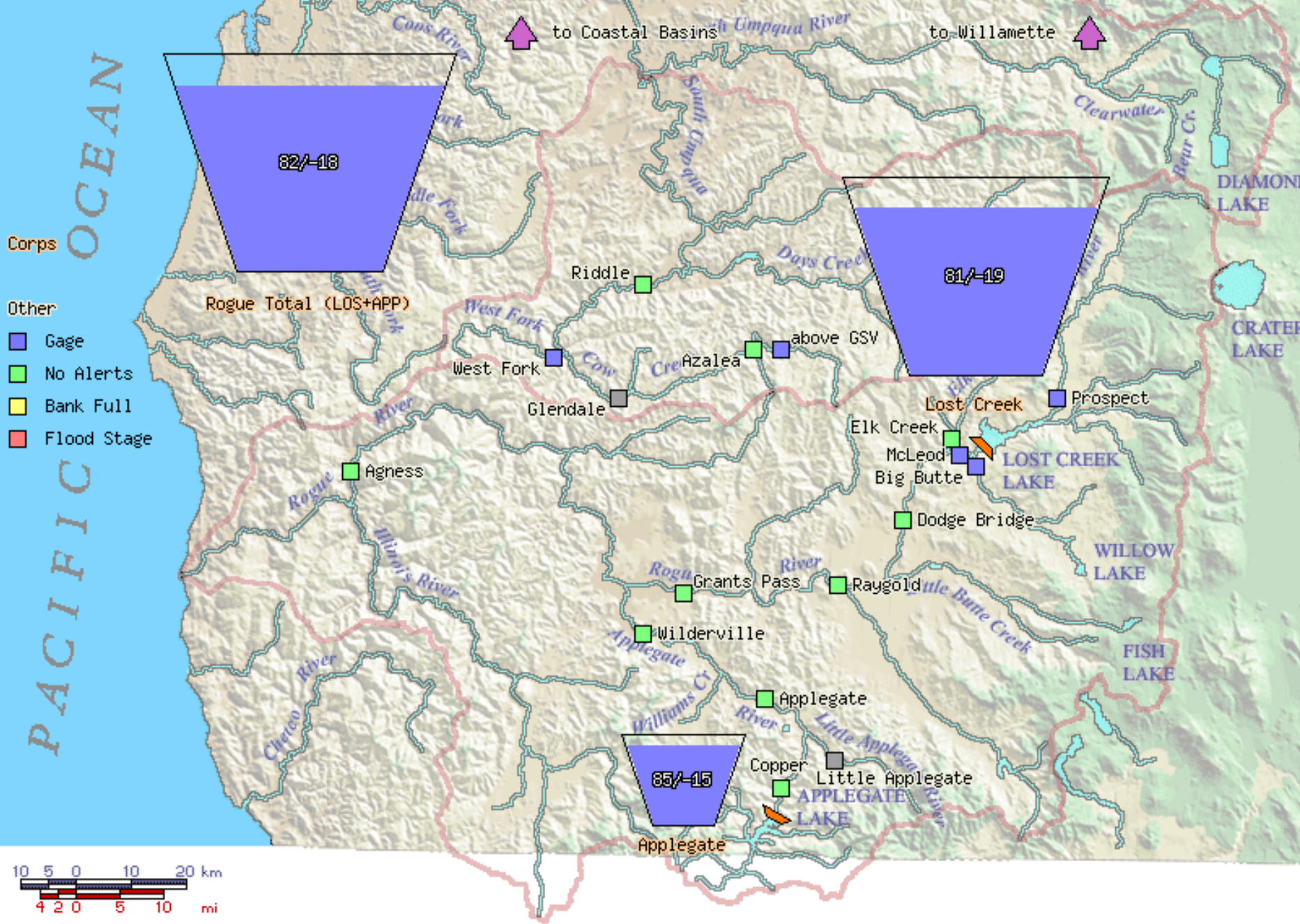
Deschutes ESA



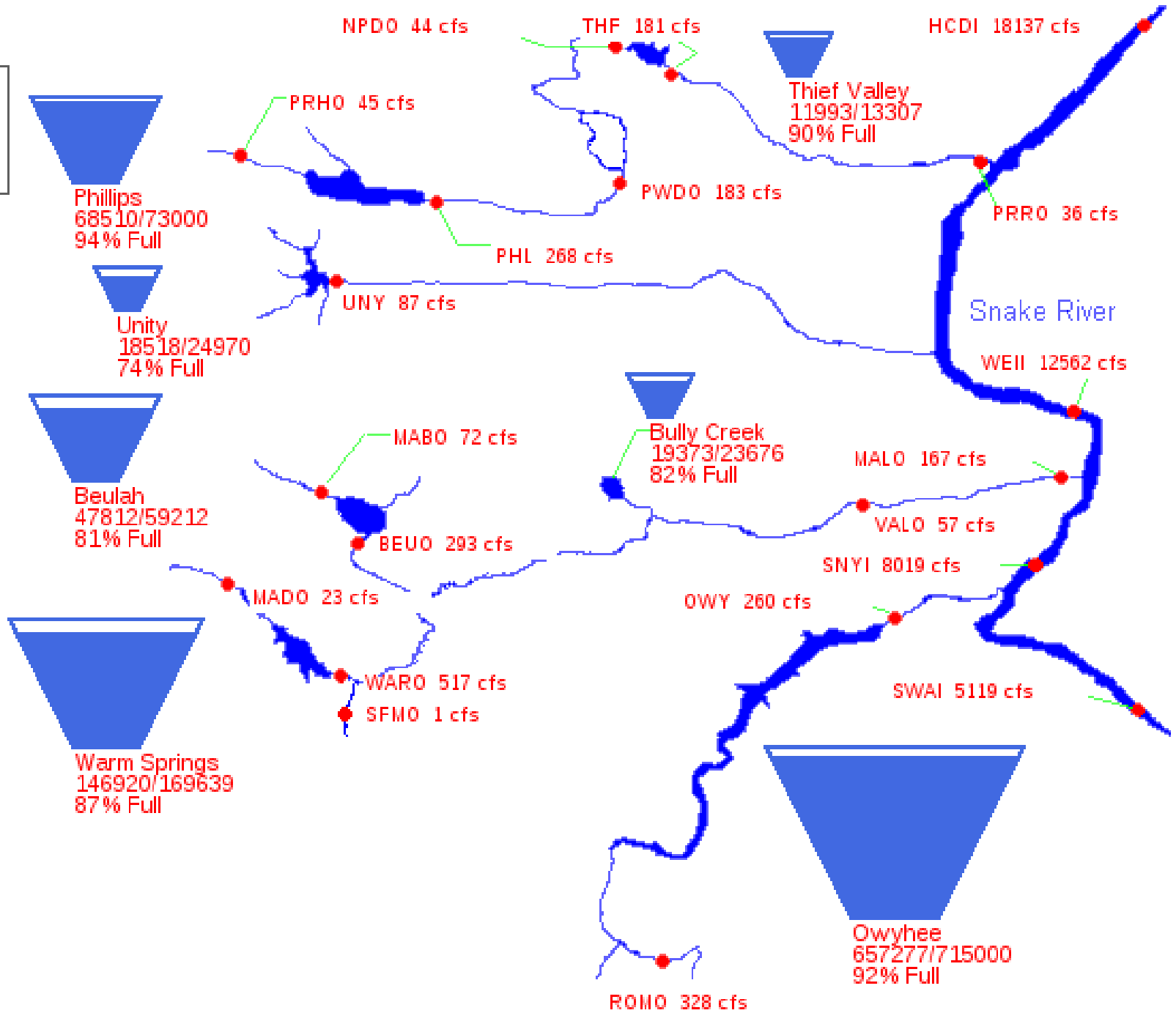
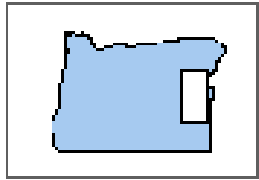
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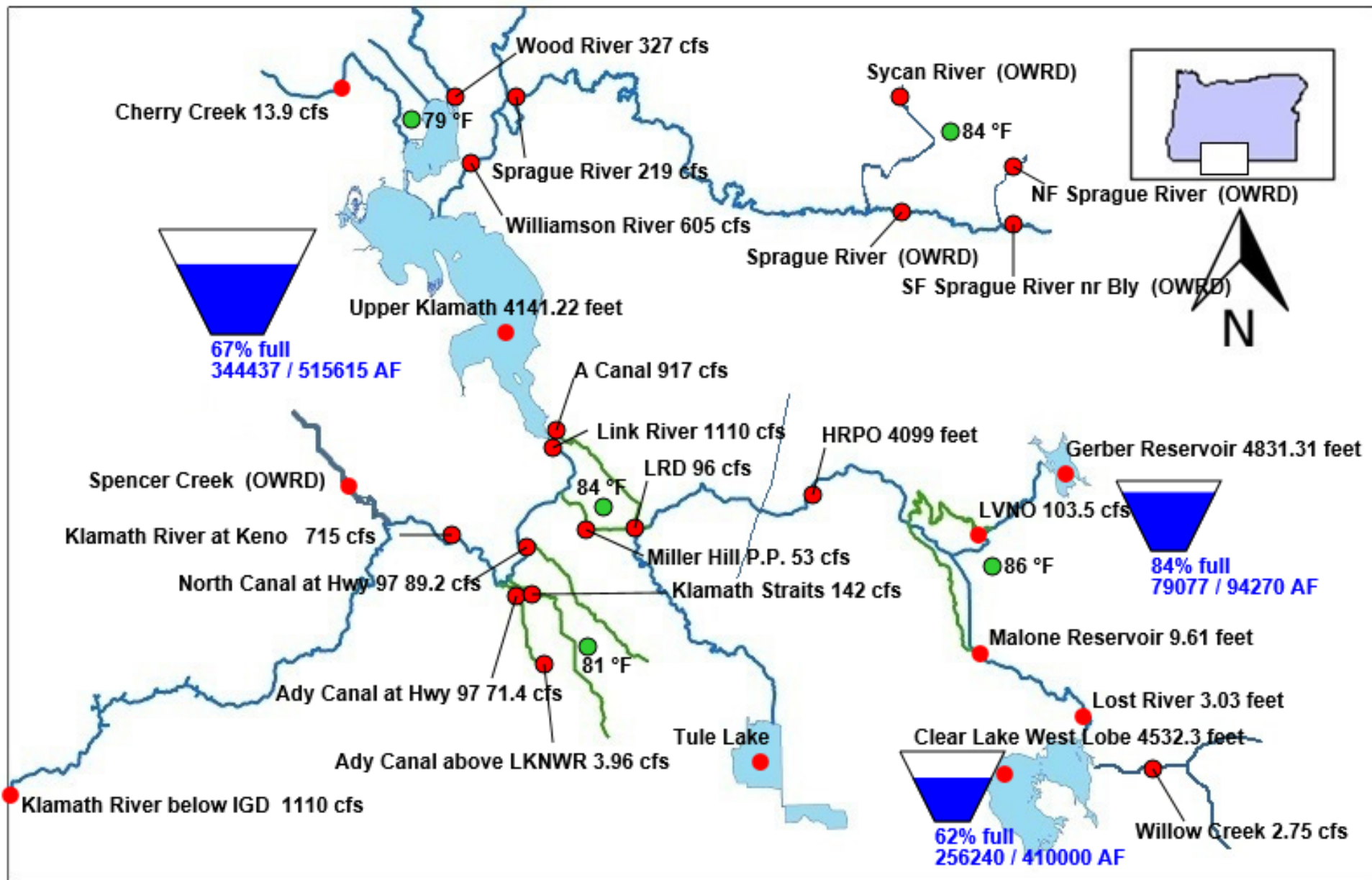




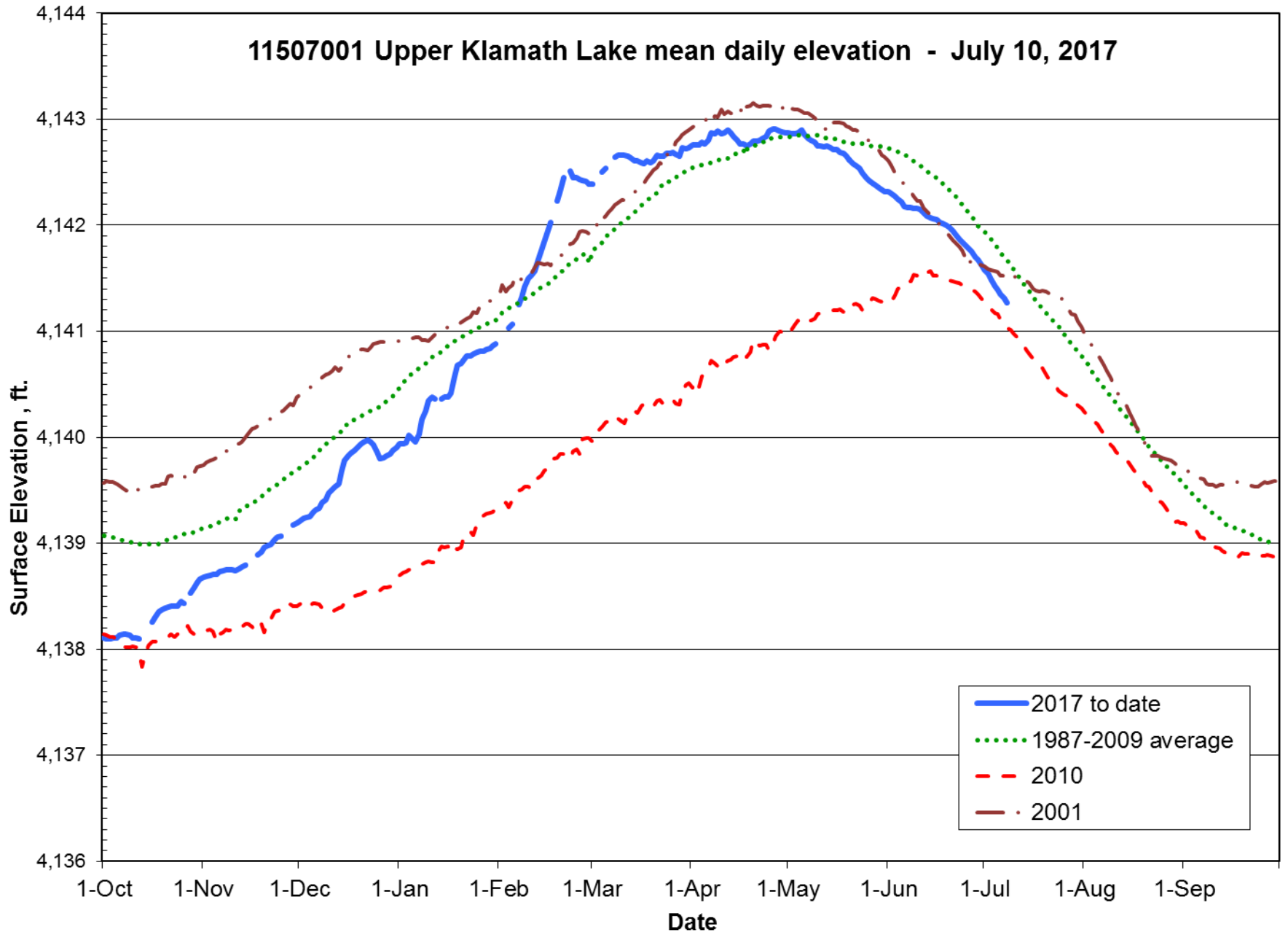


07/09/2017





11507001 Upper Klamath Lake mean daily elevation - July 10, 2017



Thank You