NWS Form E-5 U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE **MONTHLY REPORT OF HYDROLOGIC CONDITIONS**	**HYDROLOGIC SERVICE AREA:** Pocatello, Idaho **REPORT FOR:** **MONTH:** June **YEAR:** 2015
TO: Hydrologic Operations Division, W/OH2 National Weather Service National Oceanic and Atmospheric Administration Silver Spring, Maryland 20910	**SIGNATURE** Corey Loveland Service Hydrologist **DATE:** July 14, 2015
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts and hydrologic products issued (NWS Instruction 10-924).	

X **An X in this box indicates that *no* flooding has occurred for the month within this hydrologic service area.**

Overview:

June brought well above normal temperatures across the northwest and across our Hydrologic Service Area (HSA). Not much for precipitation during the month as the green vegetation quickly turned brown in the lower elevations. Record temperatures were made and streamflows receded from earlier rainfall. Overall, about a half to one inch of precipitation fell across the mountainous and eastern Caribou Highland area of the southeast corner of the state and about a quarter of an inch fell across the Snake River plain according to AHPS data. Temperature departures from normal for June show that across the HSA, show the warmer than normal temperatures trend showing that across the area, temperatures were mostly six degrees F above normal and some areas south of the Snake Plain being three to six degrees F above normal within the HSA. Mean average temperatures ranged from 52 to 72 degrees F during the month. The Potter Butte station had 5 days of average temperatures over 80 degrees F during June.

As far as the short-term 8 to 14 day Climate Prediction Center Outlook is concerned, the forecast is for a 33 to 40 percent chance of below normal temperatures in eastern and southern Idaho and a near normal chance of precipitation across Idaho. The one-month forecast graphics are found below. For the three-month outlook, the temperatures are forecast to warm up again in eastern Idaho; ranging from 33 to 40 percent chance of warmer than normal temperatures (getting warmer as you head west) and for precipitation, the outlook is for a wetter than normal summer with a 33 percent chance of above normal precipitation across all of southeastern Idaho, as most of the central U.S. is forecast to be wet as well.

Of the data available for the month, the stations within the HSA reaching the highest 24-hour temperature were the Massacre Rocks State Park COOP and the Raft River RAWS stations reaching 106°F on the 30th and the 29th respectively. The station (non-SNOTEL) with the lowest recorded temperature was the copper Basin RAWS station at 21°F on June 14th. The highest recorded 24-hr precipitation (non-SNOTEL) occurred at the Dubois Experimental COOP station where 1.09 inches fell on the 10th. The highest recorded precipitation total (non-SNOTEL) occurred at the Swan Valley COOP where 2.20 total inches was recorded for the month. The Crab Creek and Bear Canyon SNOTELs recorded 2.30 and 2.08 inches of total precipitation respectively for the month.

Reservoirs last month increased capacity overall by around 21% in the upper Snake River basin system (an increase of about 847 KAF occurred over the month and is currently sitting at 70% of capacity overall).

Compared to last year at this time, it was about 70% of capacity as well. Heavy irrigation use from the hot temperatures and passing flows during June from the reservoirs has drawn down pool levels. According to NRCS and U.S. Bureau of Reclamation reservoir data, the most notable increase in storage capacity were American Falls and Island Park reservoirs increasing percent capacity by 25 and 19% respectively. Conversely, Palisades decreased capacity by 9% due to increased flows into the reservoir from the rains and the need to delay increasing outflows. All things considered, the upper Snake reservoirs are nearly full and are all doing well as far as storage goes for this time of year.

Current streamflow conditions in eastern Idaho are mostly near normal for monthly streamflows for the majority of the unregulated streams (see graphic below).

Drought conditions across eastern Idaho have improved somewhat as a result of the May rains. Extreme drought has been removed from the central mountains, but both moderate and severe drought have been extended throughout southern Idaho especially near the Nevada and Utah borders. Currently, about 7 percent and 52 percent of the state is in Extreme and Severe drought respectively. The U.S. Seasonal Drought Outlook shows drought to mostly persist/intensify over much of the west (including western ID and a small portion of Bannock/Caribou Counties, but excludes the upper Snake River plain and western Wyoming. On June 8th, IDWR issued a drought emergency declaration for Teton County.

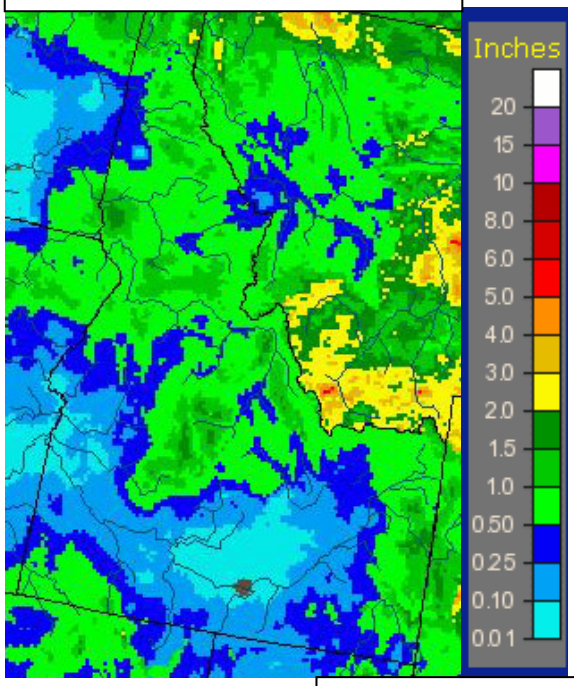
According to the Idaho NRCS Snow Survey July 1st Idaho Surface Water Supply Index (SWSI); combining streamflow volume forecasts and reservoir storage (where appropriate), rates the greatest valued basin for water supply within the HSA as being the Bear River basin. The basin was given a SWSI rating of -0.2 (near normal). This rating reflects overall water availability in the basins and are mostly used for irrigational planning purposes. The two lowest ranked basins within the HSA are the Little Wood and Little Lost basins at -3.1 and -2.6 respectively, which are below normal.

Idaho Surface Water Supply Index (SWSI):

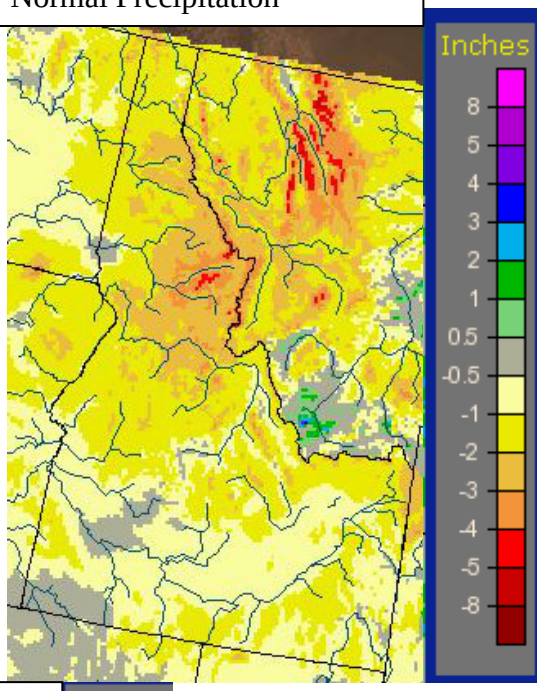
ftp://ftp.wcc.nrcs.usda.gov/states/id/webftp/swsi/tables/Jul/SWSI07.pdf

Precipitation:

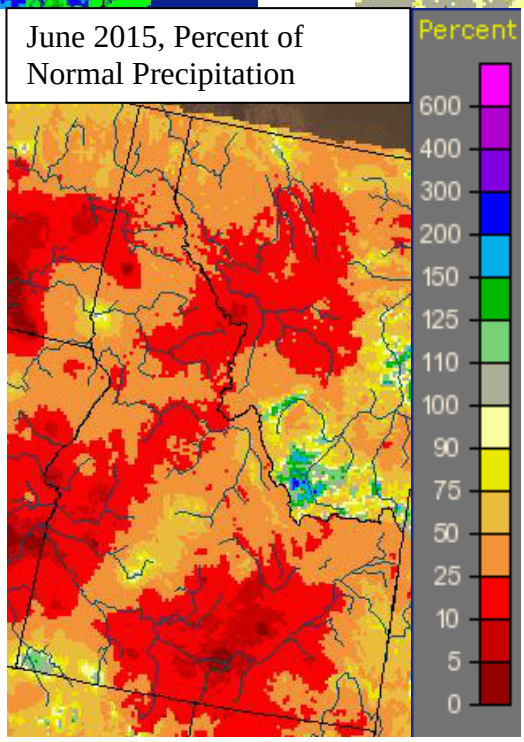
June 2015, Observed Precipitation



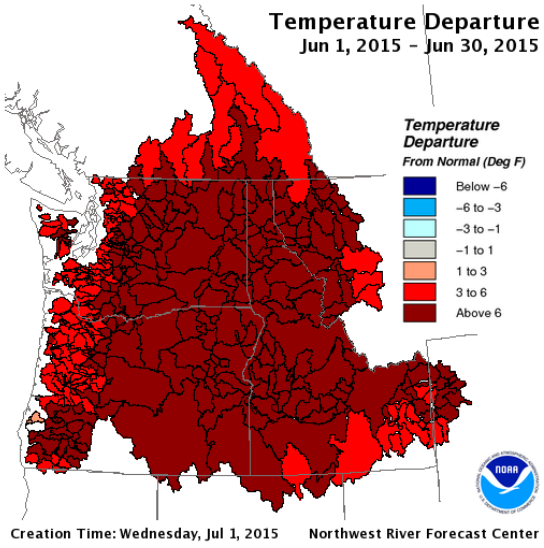
June 2015, Departure from Normal Precipitation



June 2015, Percent of Normal Precipitation



water.weather.gov/precip/index.php



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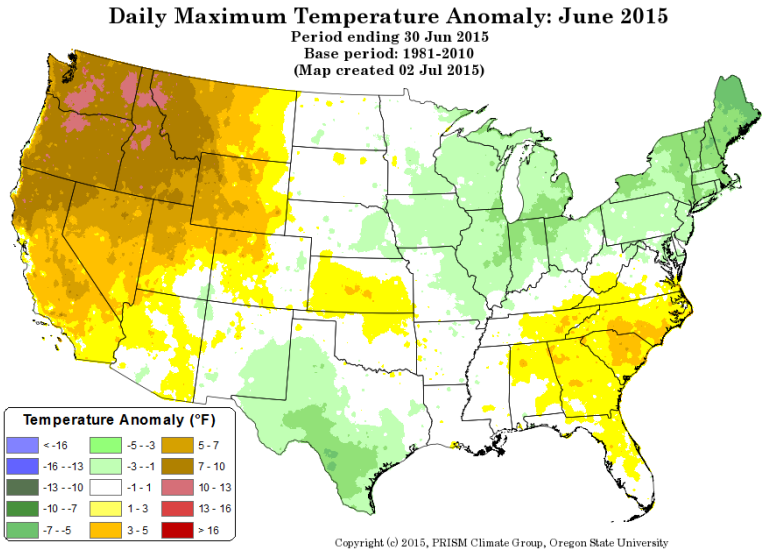
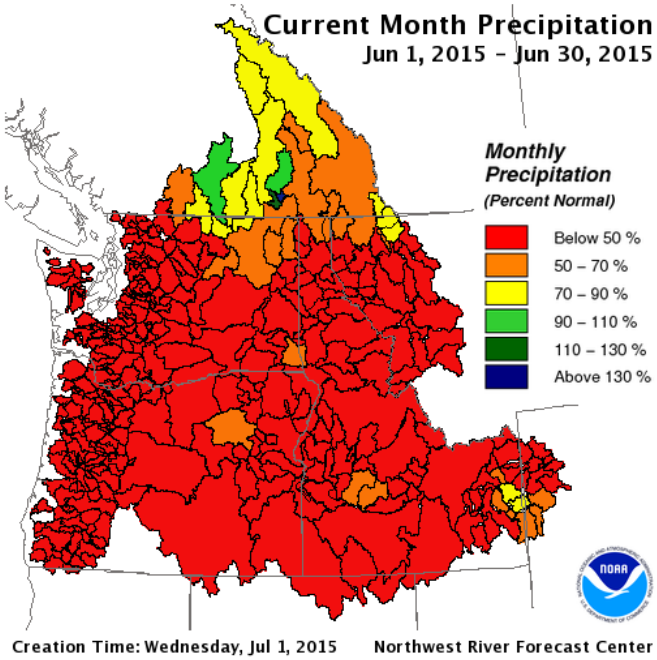


prism.oregonstate.edu/



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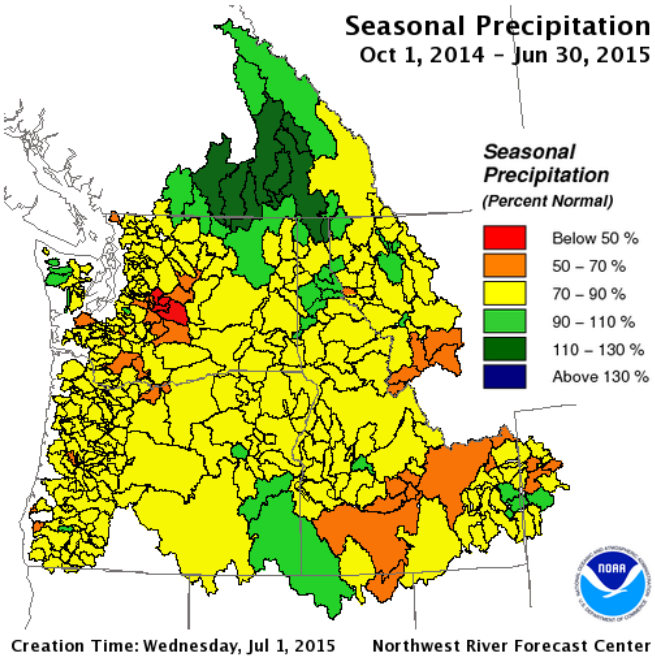
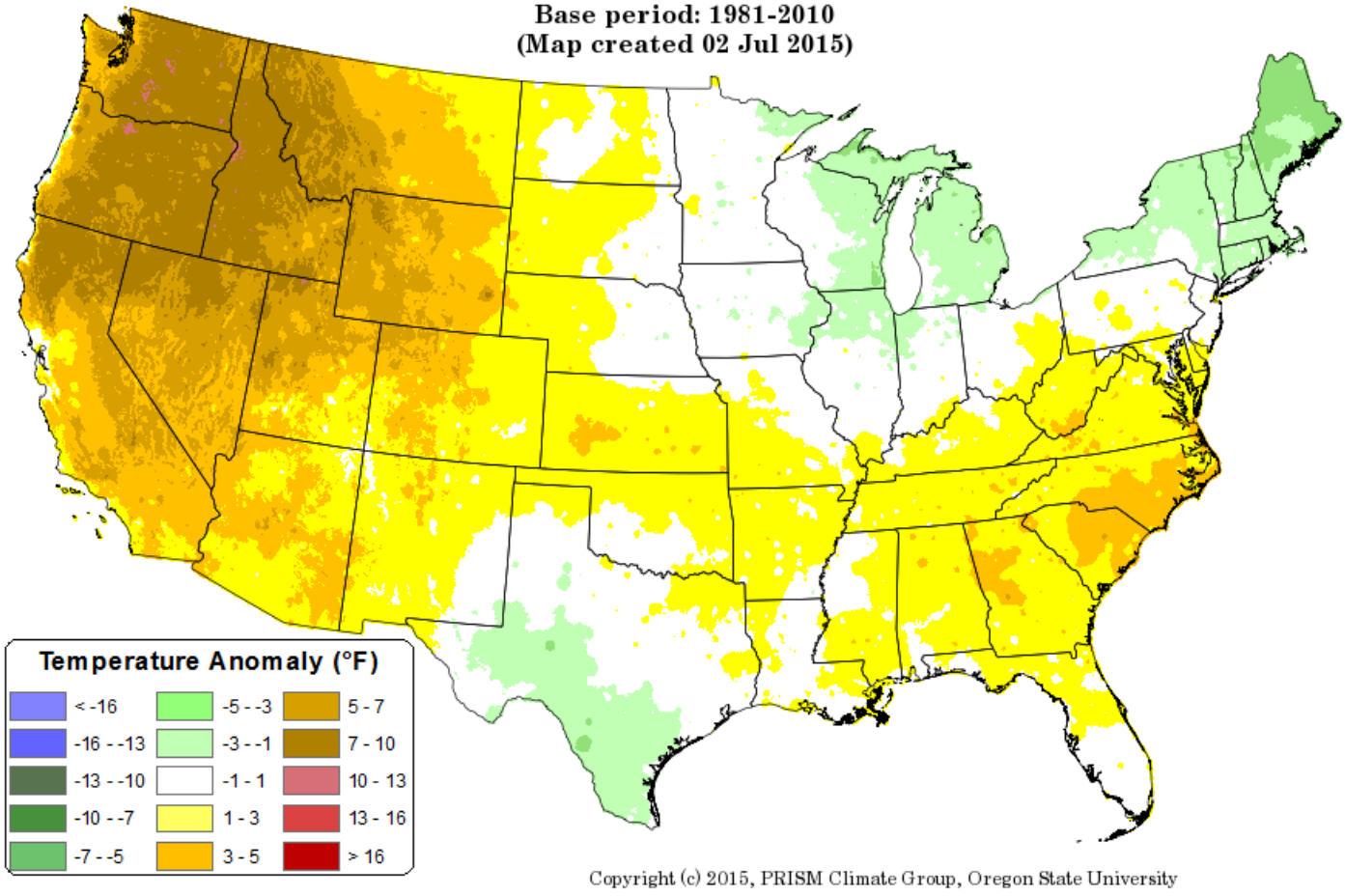


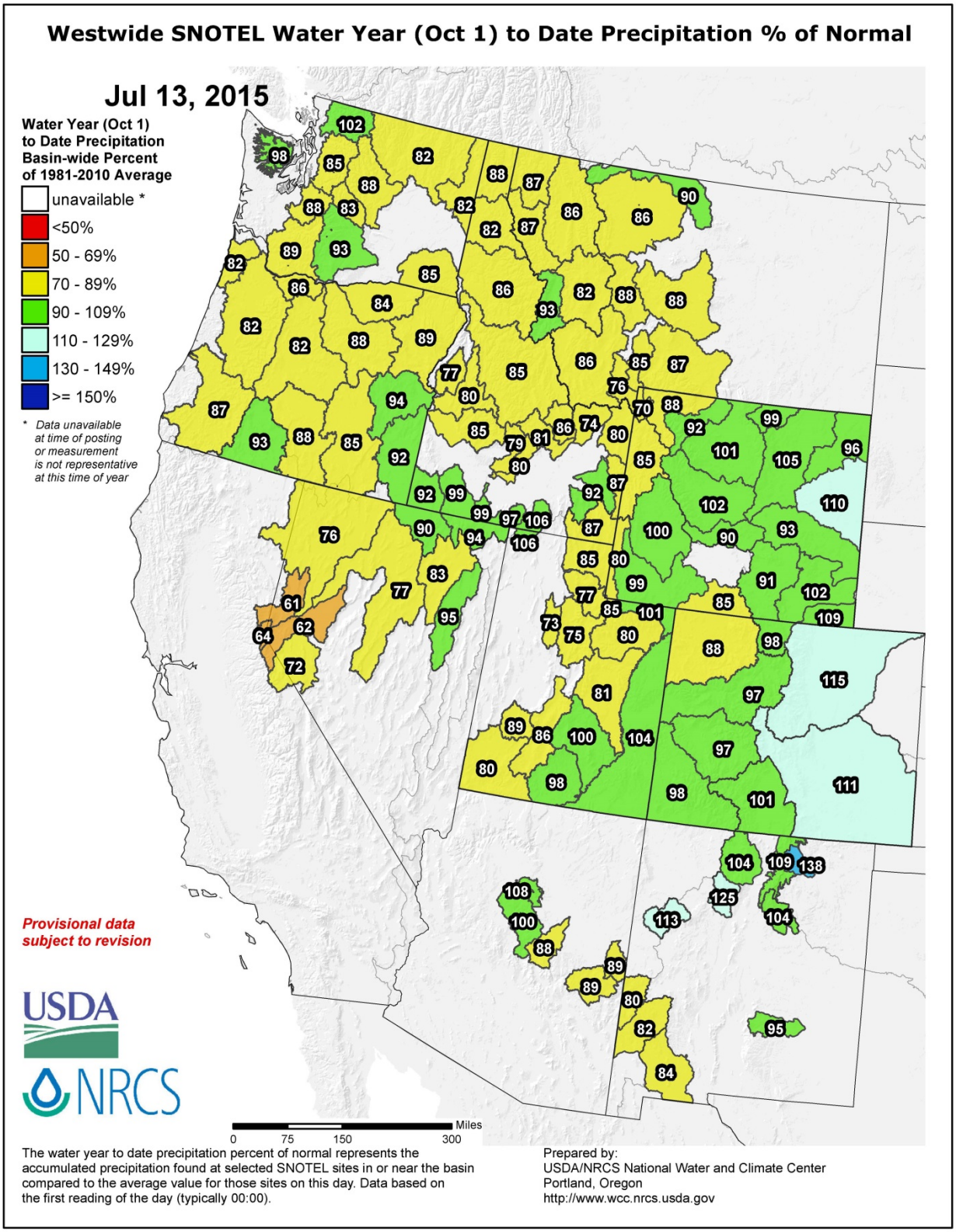
nwrfc.noaa.gov/WAT_RES_wy_summary/20150701/SeasonalMAP_2015Jun30_2015070120.png

Daily Mean Temperature Anomaly: June 2015

Period ending 7 AM EST 30 Jun 2015
Base period: 1981-2010
(Map created 02 Jul 2015)



prism.oregonstate.edu/



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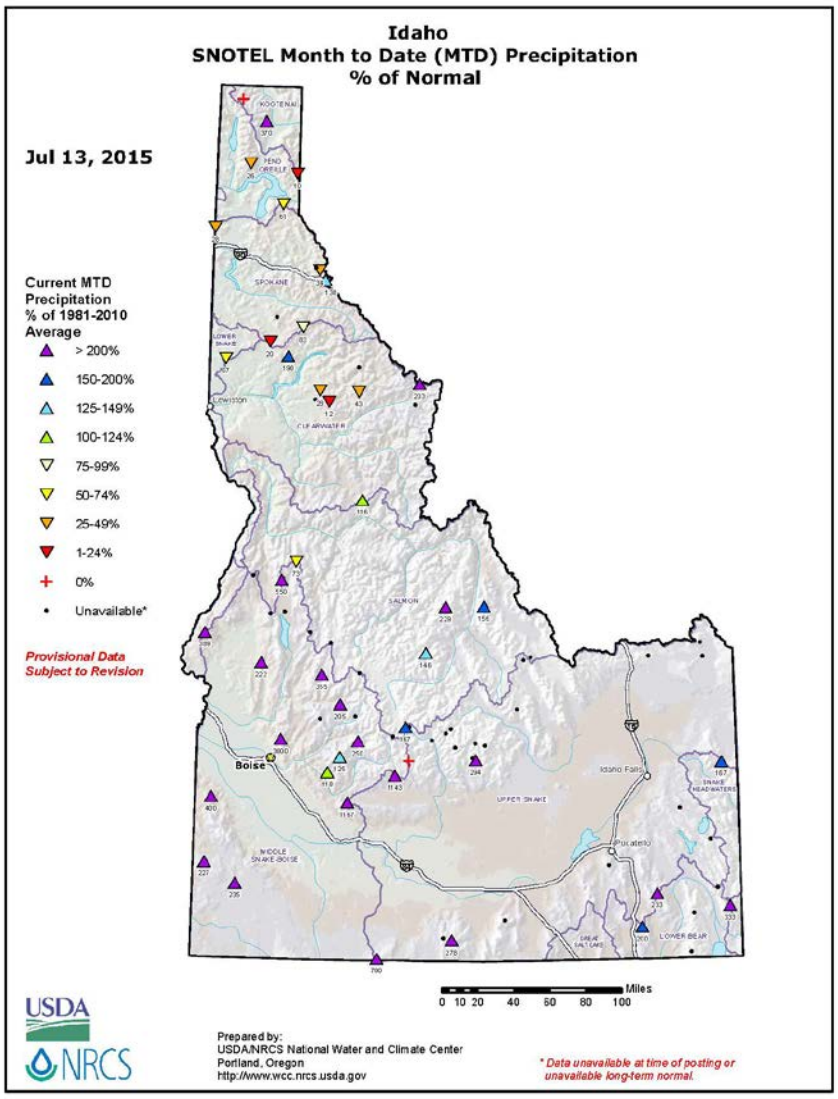

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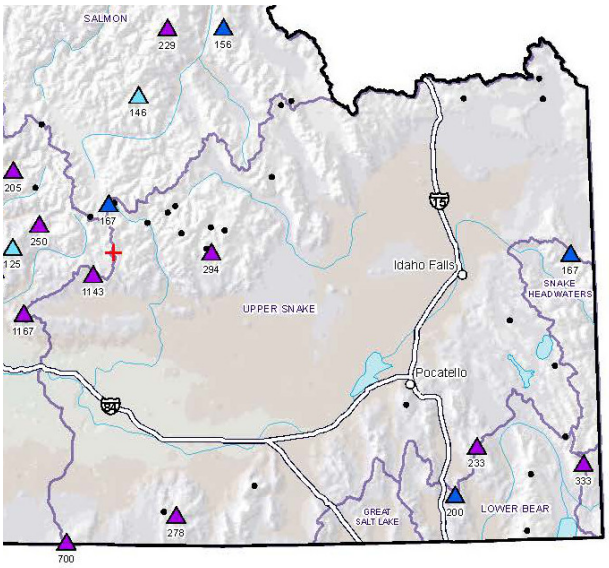
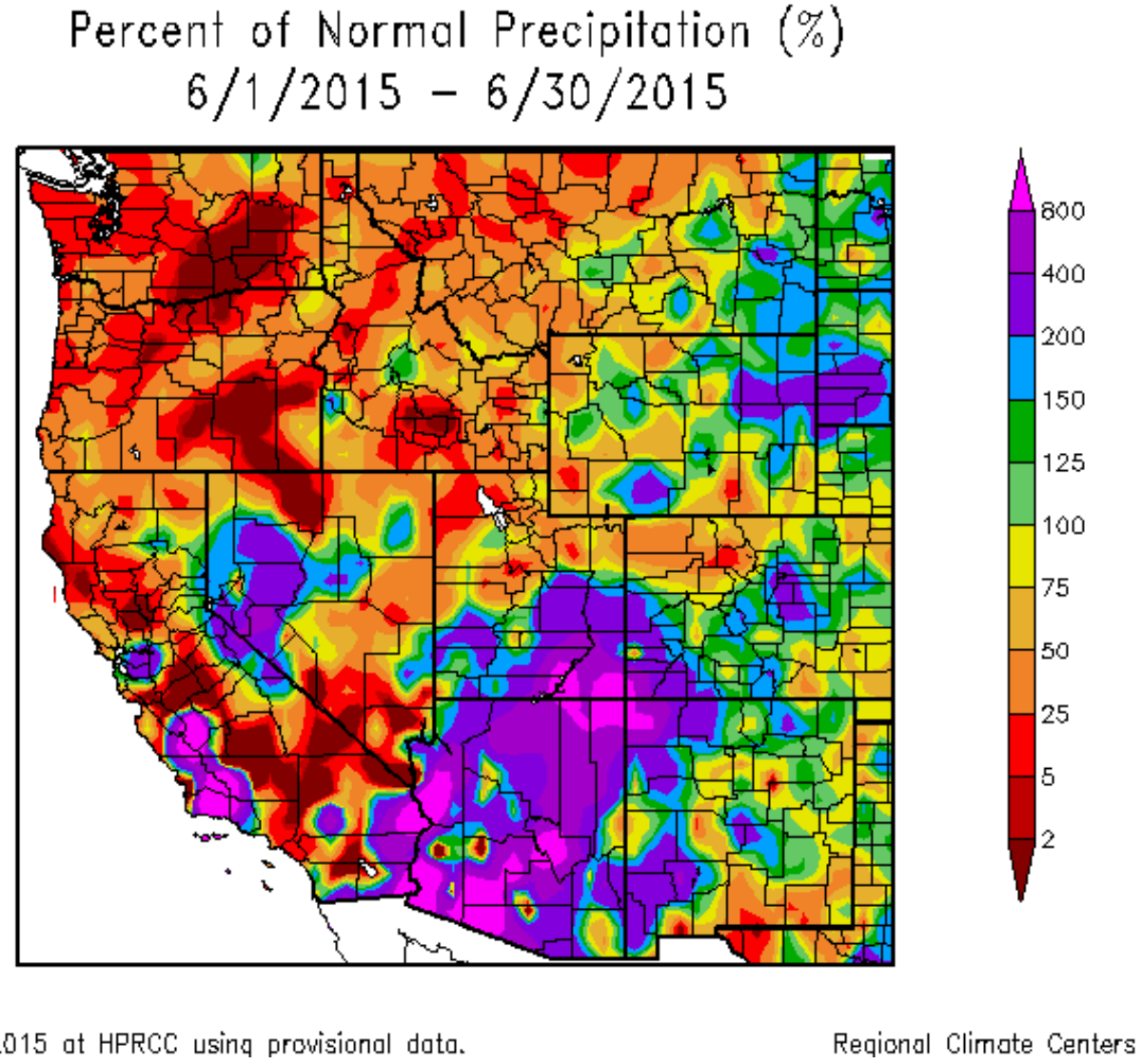


SNOTEL MTD % of Normal Precipitation for end of June 2015
(image is cropped from above image)

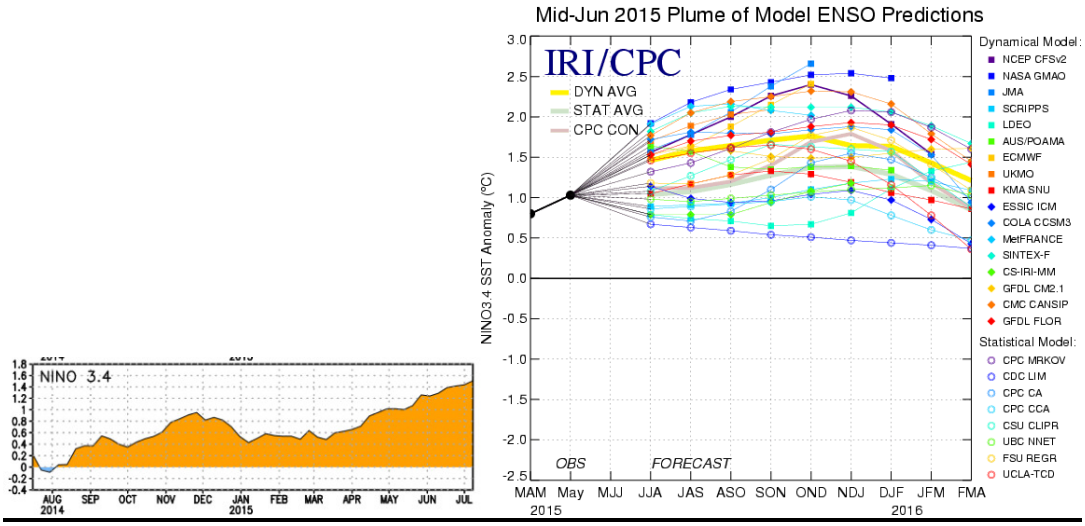
June brought early season warmth and record temperatures across the HSA. In fact, the entire Pacific Northwest (WA, OR, ID, Northern CA and Western MT) had well above normal temperatures. Precipitation was a different story though, much of the West was dry during the month. Eastern Idaho was mostly 5-75% of normal for June with the driest area in the mid Snake River plain area.



hprcc.unl.edu/maps/current/index.php?action=update_type&map_type=

ENSO Update:

Latest Observed SST Departure: Niño 3.4 ~ 1.5 Deg C



cpc.ncep.noaa.gov, iri.columbia.edu/climate/ENSO *and* cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.pdf

CPC Synopsis: El Niño conditions continue. There is a greater than a 90% chance that El Niño conditions continue in the Northern Hemisphere for winter 2015-16.

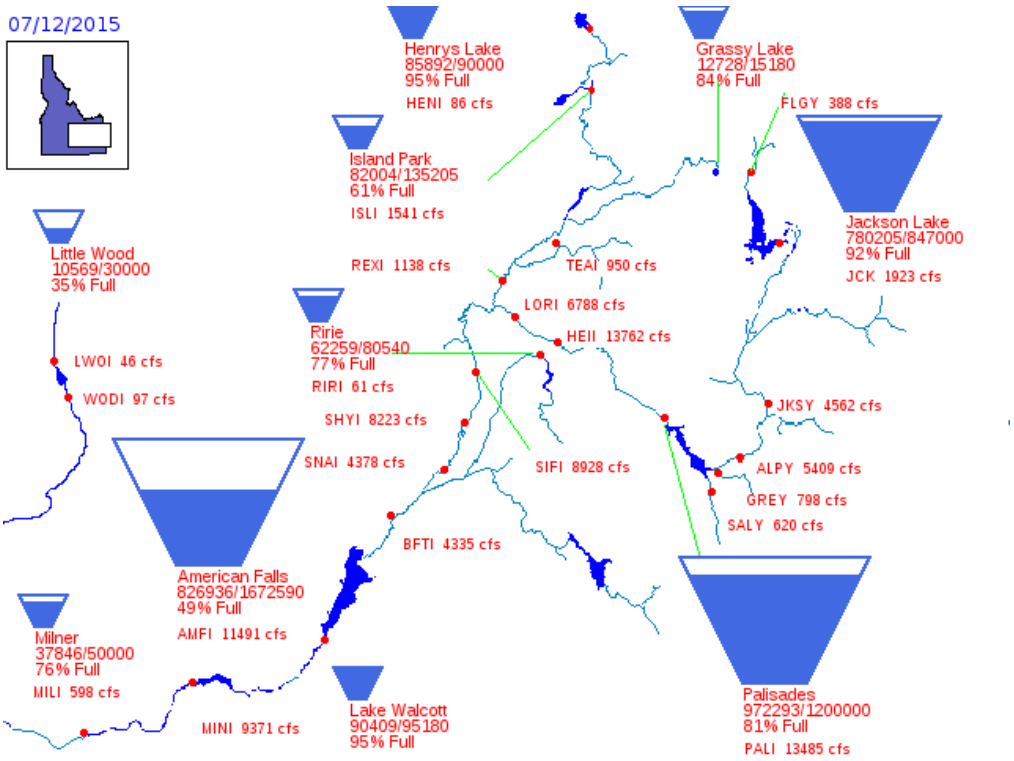
Note: Positive equatorial sea surface temperature (SSTs) anomalies continue across most of the Pacific Ocean. MJO remains active and the AO is forecast to become positive.

Reservoirs:

Reservoir	% Capacity May 31[1]	% Capacity June 30[2]	Percent Change	% of Average[2]	% of Average Last Year[2]
Jackson Lake	100	95	-5	116	121
Palisades	85	94	9	109	90
Henrys Lake	99	97	-2	102	105
Island Park	98	79	-19	85	106
Grassy Lake	101	95	-6	100	106
Ririe	78	79	1	92	98
Blackfoot	59	60	1	89	84
American Falls	85	60	-25	78	76
Mackay	80	75	-5	100	47
Little Wood	66	48	-18	57	46
Magic	42	27	-15	42	31
Oakley	32	26	-6	61	57
Bear Lake	49	50	1	89	85
Lake Walcott	96[3]	95[4]	-1	n/a	n/a
Milner	74[3]	76[4]	2	n/a	n/a

Source: (1) NRCS May 31, 2015; (2) NRCS June 30, 2015.
(3) US Bureau of Reclamation (BOR) June 8, 2015 (4) BOR July 12, 2015

wcc.nrcs.usda.gov/ftpref/support/water/SummaryReports/ID/BRes_7_2015.pdf

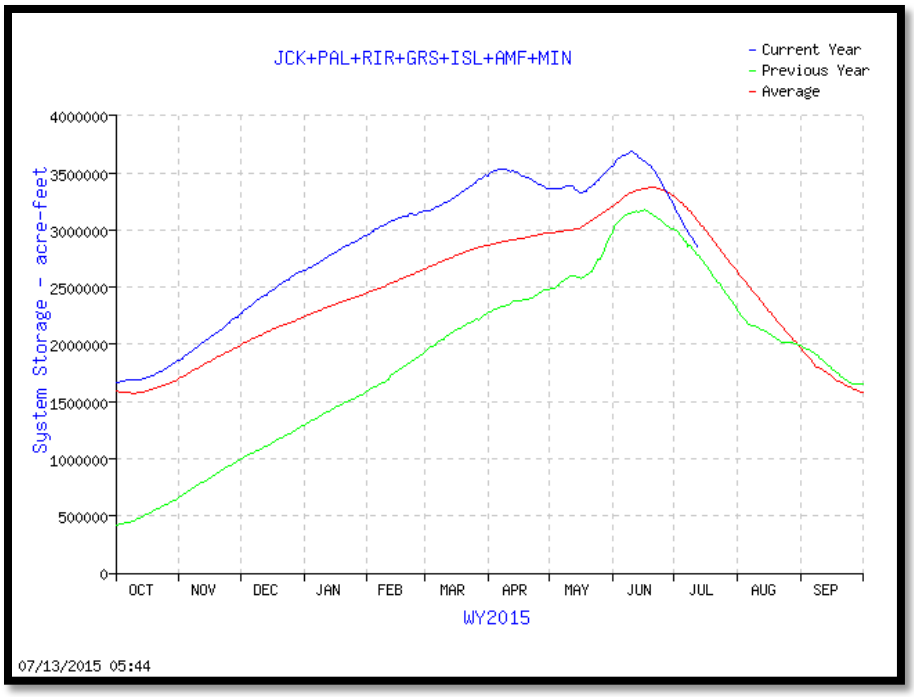


70% of Capacity in Upper Snake River System
(Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls & Lake Walcott)

usbr.gov/pn/hydromet/burtea.html

Upper Snake River:
Total Space Available: 1,218,861 AF
Total Storage Capacity: 4,045,695 AF

Graph of Upper Snake River Current Total System Reservoir Storage

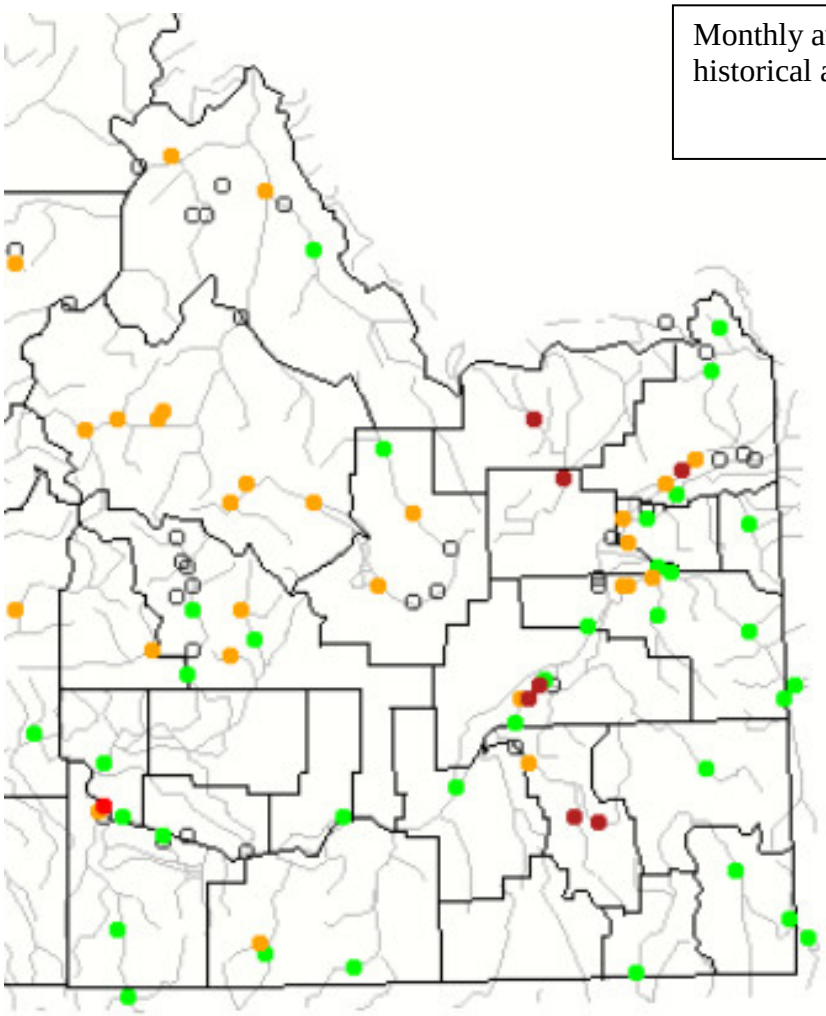


usbr.gov/pn-bin/graphwy2.pl?snasys_af

Streamflow:

Monthly average streamflow compared to historical average streamflow for June 2015.

USGS

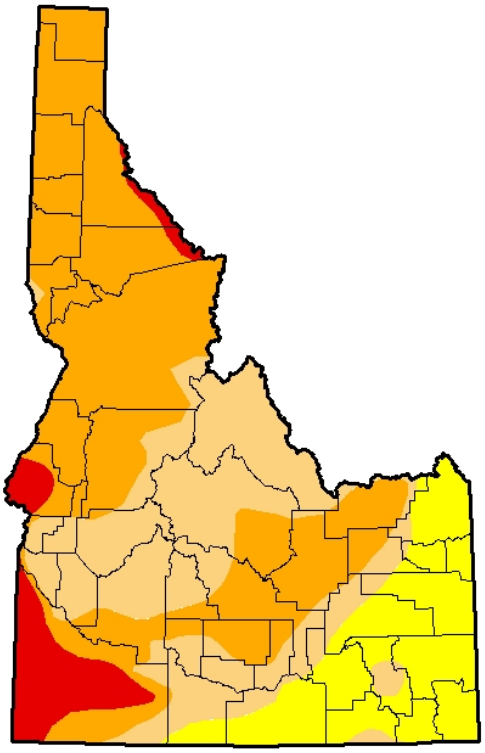


Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

waterwatch.usgs.gov/?m=mv01d&r=id&w=map

Drought Information:

U.S. Drought Monitor
Idaho



July 7, 2015
(Released Thursday, Jul. 9, 2015)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	82.11	52.23	7.01	0.00
Last Week 6/30/2015	0.00	100.00	82.11	44.66	6.29	0.00
3 Months Ago 4/7/2015	30.47	69.53	39.05	17.55	2.41	0.00
Start of Calendar Year 12/30/2014	23.76	76.24	41.73	18.49	3.40	0.00
Start of Water Year 9/30/2014	13.19	86.81	52.39	26.35	3.53	0.00
One Year Ago 7/8/2014	38.01	61.99	41.29	28.41	1.82	0.00

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:
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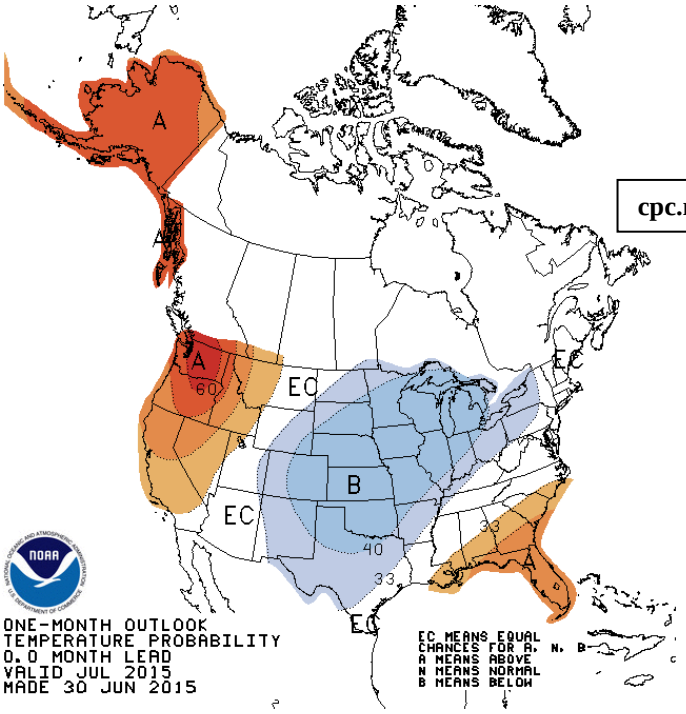
National Drought Mitigation Center

http://droughtmonitor.unl.edu/



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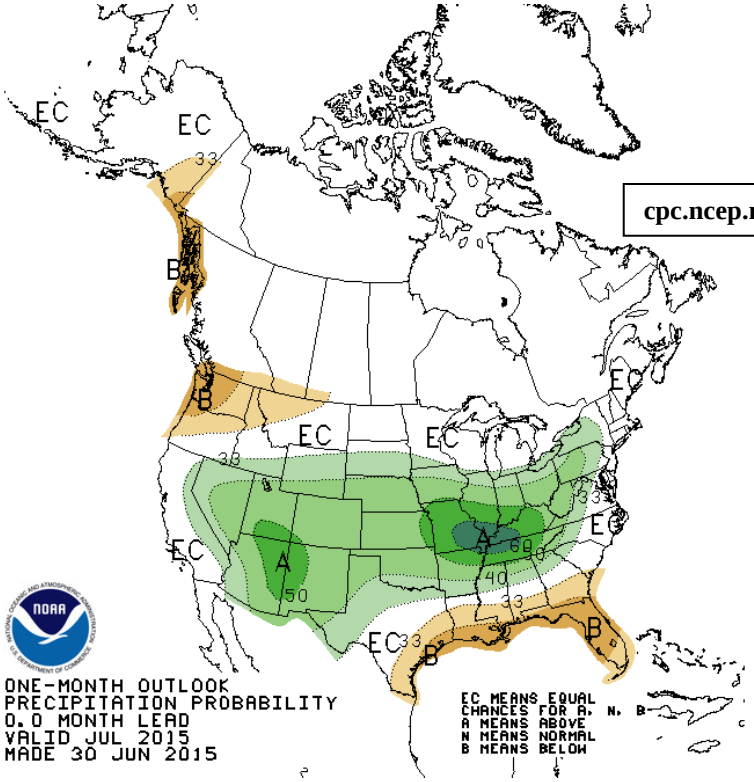

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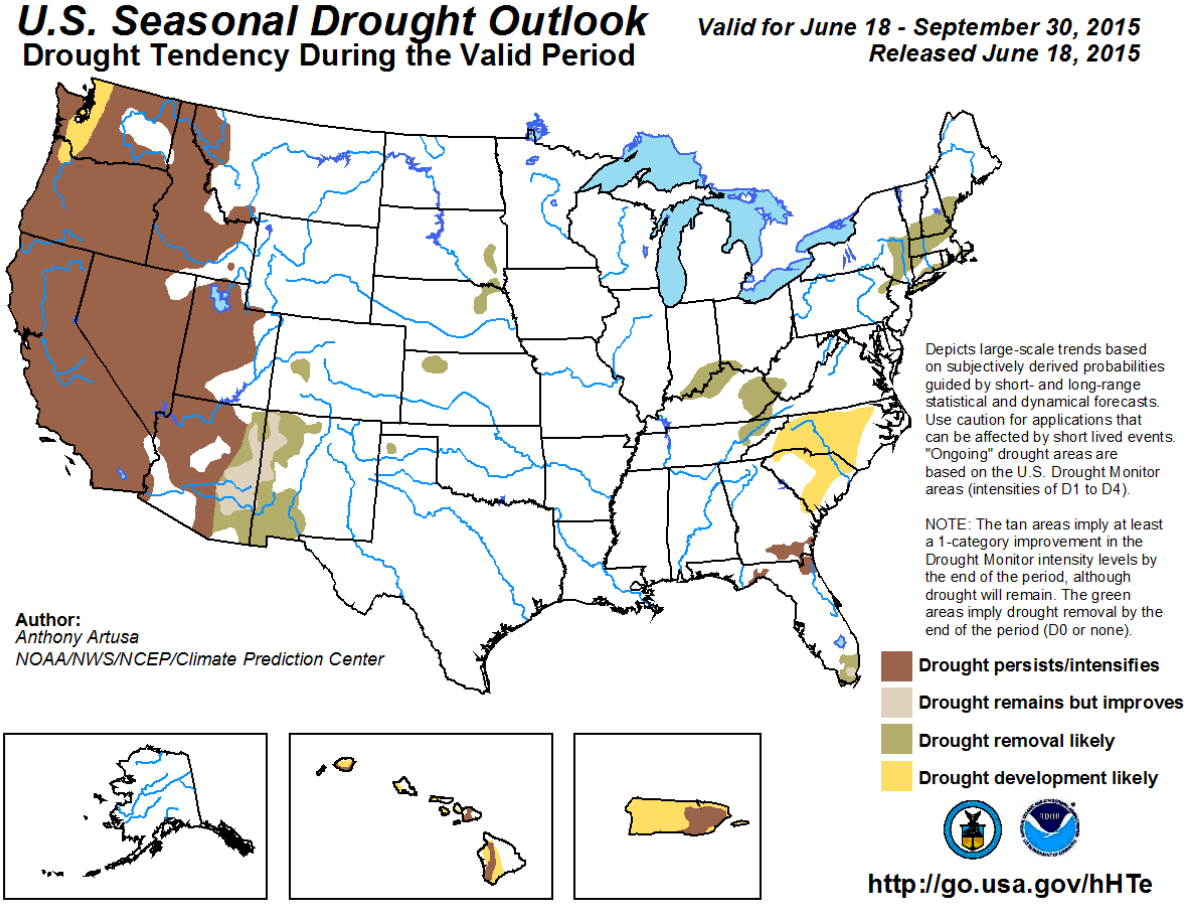

cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png

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PIH Mets/HMT's

End

cbl