

Colorado River Commission of Nevada

Natural Resources Group Hydrologic Update June 29, 2016



Unregulated Inflow Into Lake Powell

As of June 27, 2016

	MAF*	% Avg**
• WY 2016 (Projected):	9.8	90%
• April-July 2016 (Projected):	6.6	92%
• May (Observed):	2.3	98%
• June (Forecasted):	2.8	103%

*MAF=Million Acre-Feet

**30-year average, from 1981-2010 (current normal)



Storage Conditions

As of June 27, 2016

		<u>Percent of Capacity</u>	<u>Δ from last year</u>
Lake Mead elev.	1,072.01 ft	36%	↓ 2.83 ft
Lake Powell elev.	3,618.81 ft	56%	↑ 5.98 ft
Total System Storage (6/2016)	31.39 maf	53%	↑ 0.46 maf
Total System Storage (6/2015)	31.12 maf	52%	

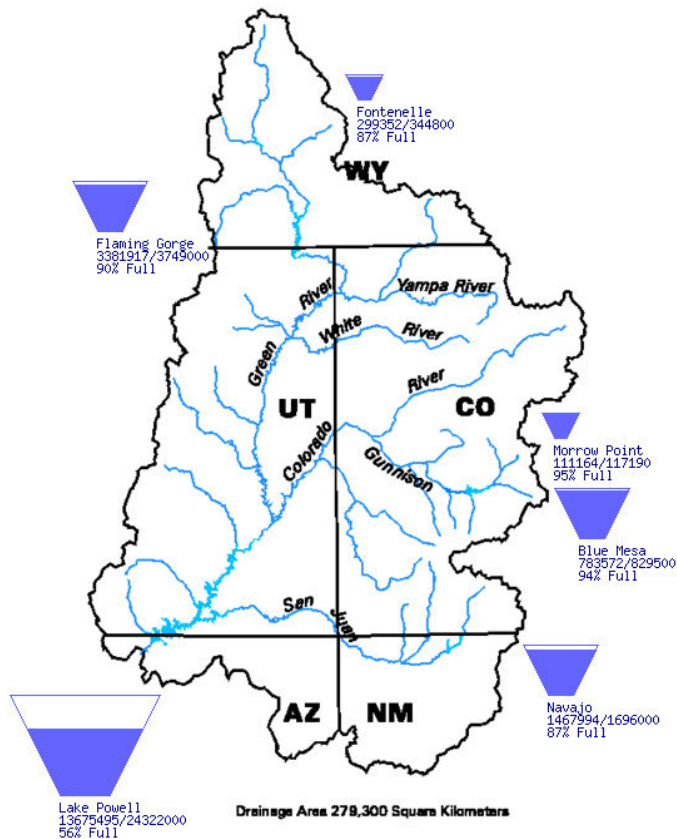


Reservoir Storage

As of June 27, 2016

Data Current as of:
06/27/2016

Upper Colorado River Drainage Basin



Colorado River Reservoir Storages

Basin	Reservoir	Max Storage (af)	*Current Storage (af)	Percentage	Current Storage subtotals (af)
Upper Basin	Crystal Reservoir	17,356	16,705	96%	6,060,704
	Flaming Gorge	3,749,000	3,381,917	90%	
	Fontenelle	344,800	299,352	87%	
	Morrow Point	117,190	111,164	95%	
	Blue Mesa	829,500	783,572	94%	
	Navajo	1,696,000	1,467,994	87%	
Lower Basin	Lake Powell	24,322,000	13,675,495	56%	2,319,700
	Lake Mead	26,120,000	9,350,000	36%	
	Lake Mohave	1,809,800	1,729,300	96%	
	Lake Havasu	619,400	590,400	95%	
TOTAL		59,625,046	31,405,899	53%	

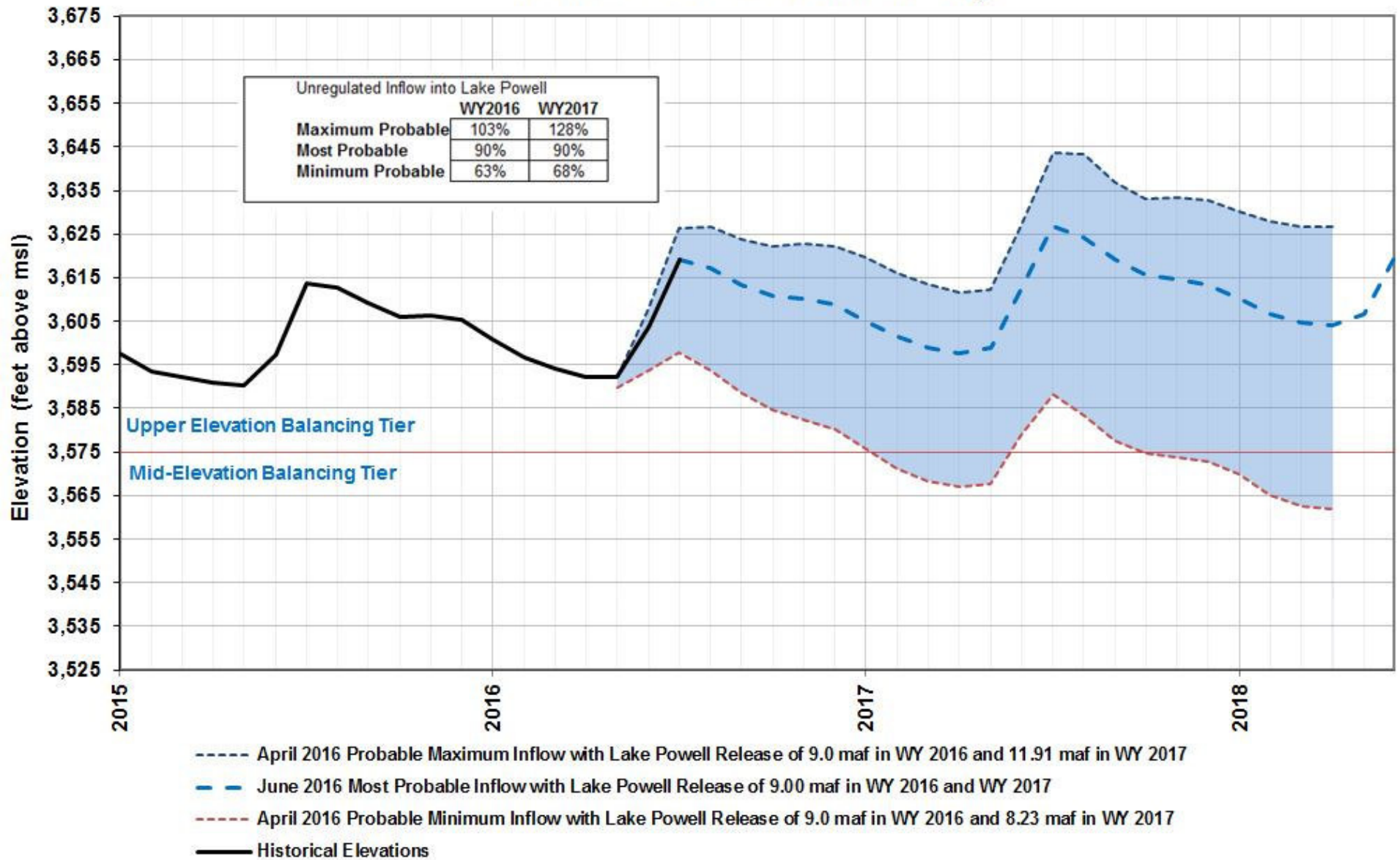
*Data current as 6/27/2016

<http://www.usbr.gov/lc/region/g4000/hourly/levels.html>

<http://www.usbr.gov/uc/water/rsrvs/ops/r40day.html>

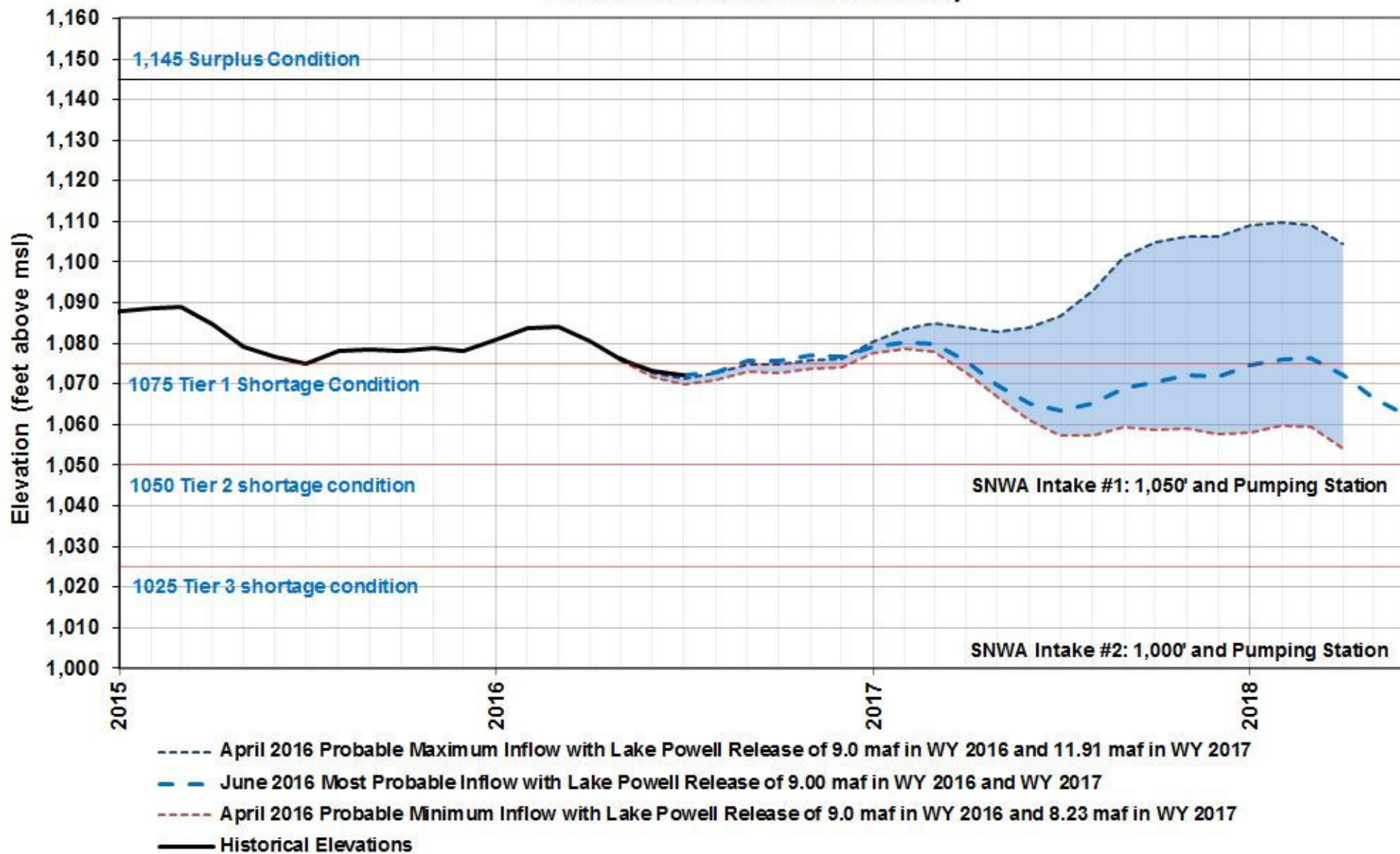
Lake Powell Projections

Reclamation's June 2016 24-Month Study



Lake Mead Projections

Reclamation's June 24-Month Study



U.S. Drought Monitor






West

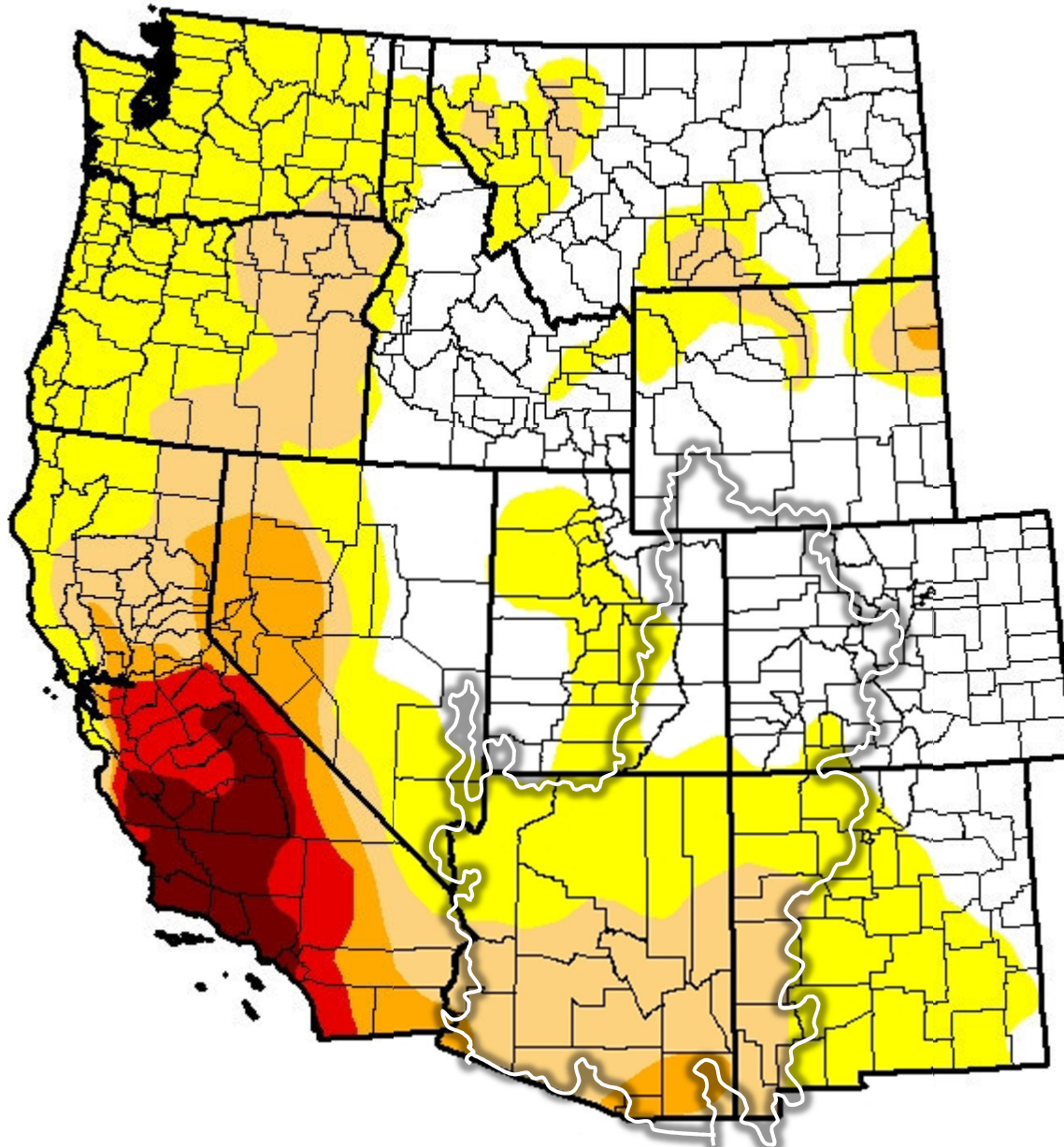
June 14, 2016

(Released Thursday, Jun. 16, 2016)

Valid 8 a.m. EDT

Intensity:

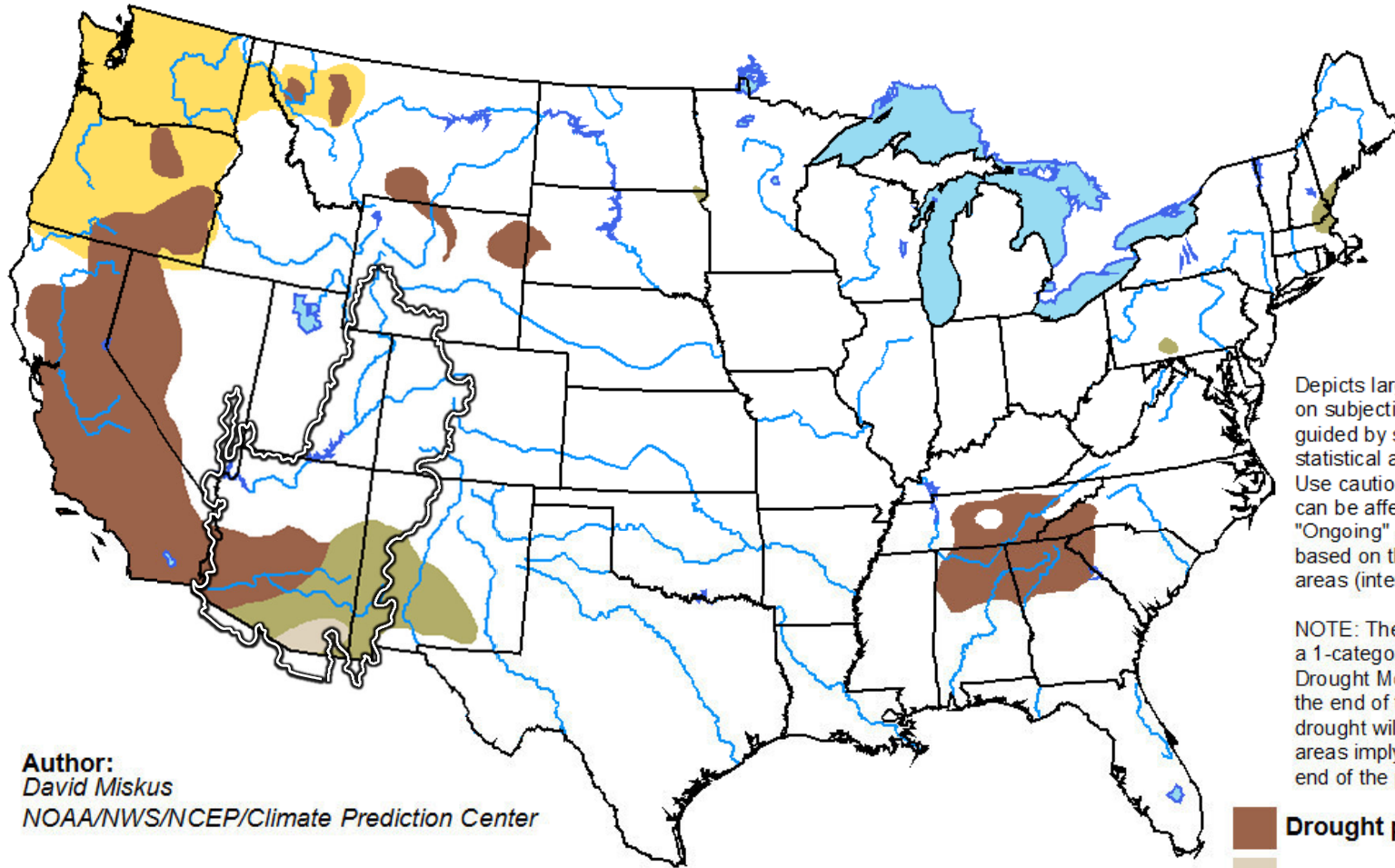
-  D0 - Abnormally Dry
-  D1 - Moderate Drought
-  D2 - Severe Drought
-  D3 - Extreme Drought
-  D4 - Exceptional Drought



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for June 16 - September 30, 2016
Released June 16, 2016

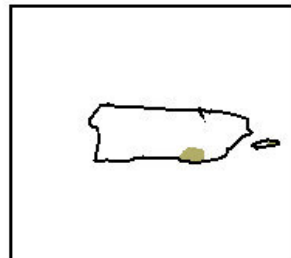
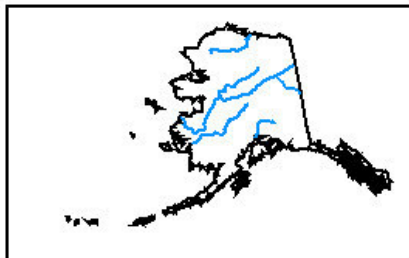


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author:
David Miskus
NOAA/NWS/NCEP/Climate Prediction Center



<http://go.usa.gov/3eZ73>

Precipitation – Colorado River Basin

As of June 27, 2016

Upper Colorado Basin

WY Precip to Date

97% (24.2")

Current Basin Snowpack

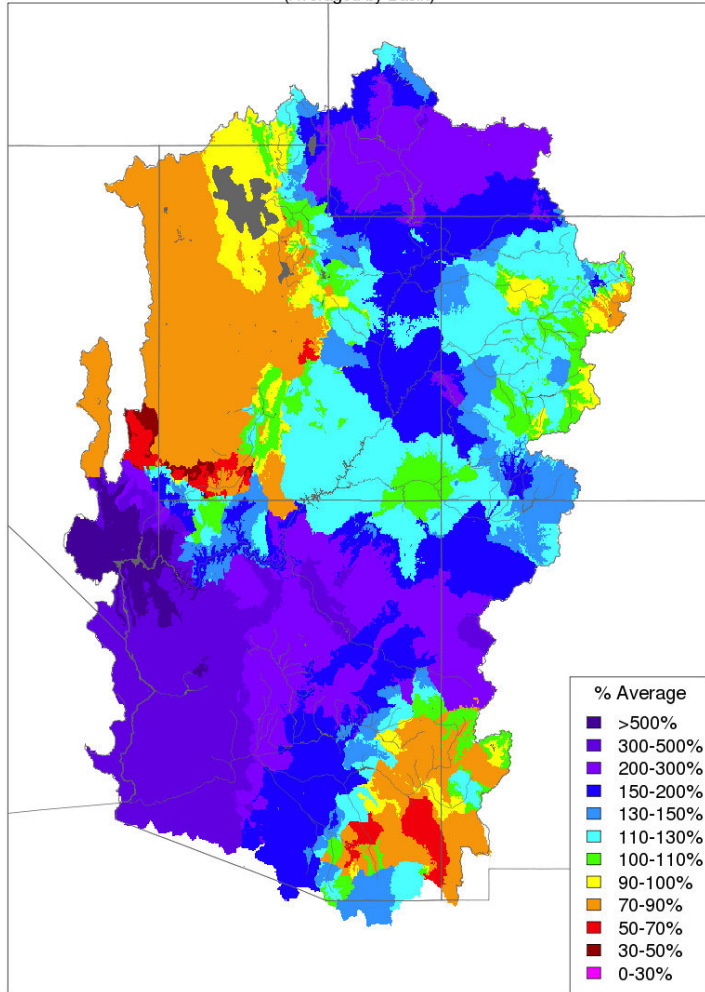
NA

(Avg 1981-2010)



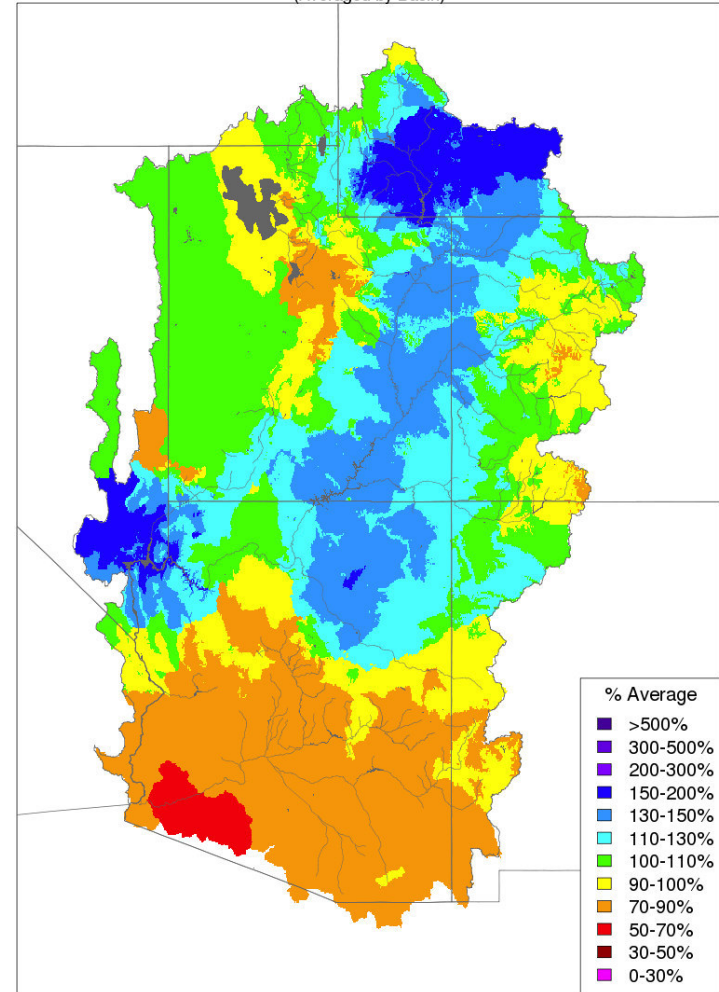
Precipitation

Monthly Precipitation - May 2016
(Averaged by Basin)



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Water Year Precipitation, October 2015 - May 2016
(Averaged by Basin)

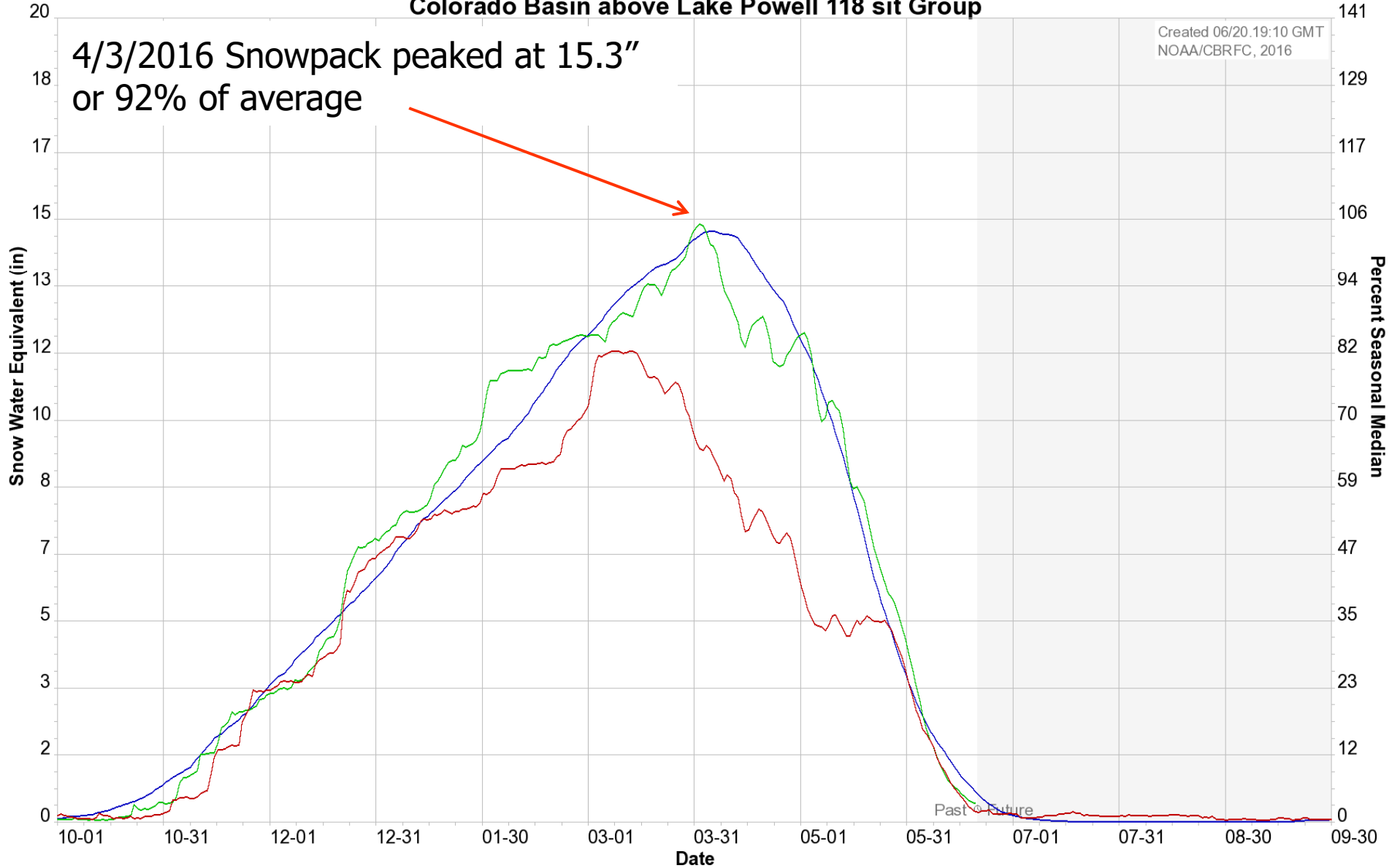


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Colorado Basin River Forecast Center
Colorado Basin above Lake Powell 118 sit Group

Created 06/20:19:10 GMT
NOAA/CBRFC, 2016

4/3/2016 Snowpack peaked at 15.3"
or 92% of average



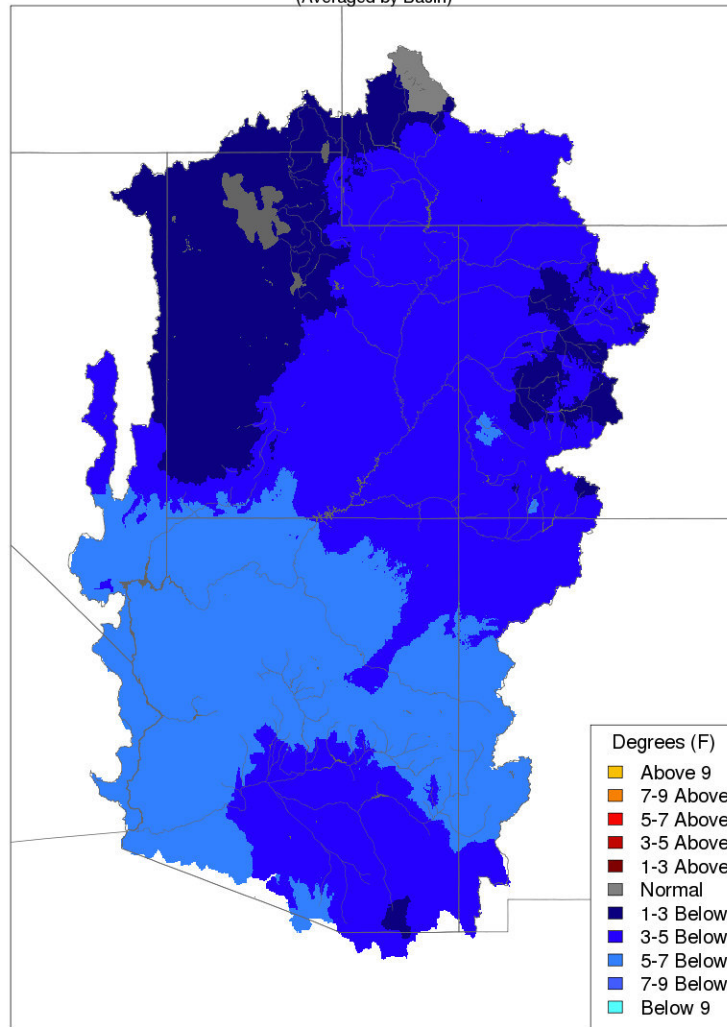
Average 1981-2010 — 2016 — 2015 —

Temperature Deviations

Monthly Averaged Temperature Anomaly

Max Temp - Monthly Deviation - May 2016

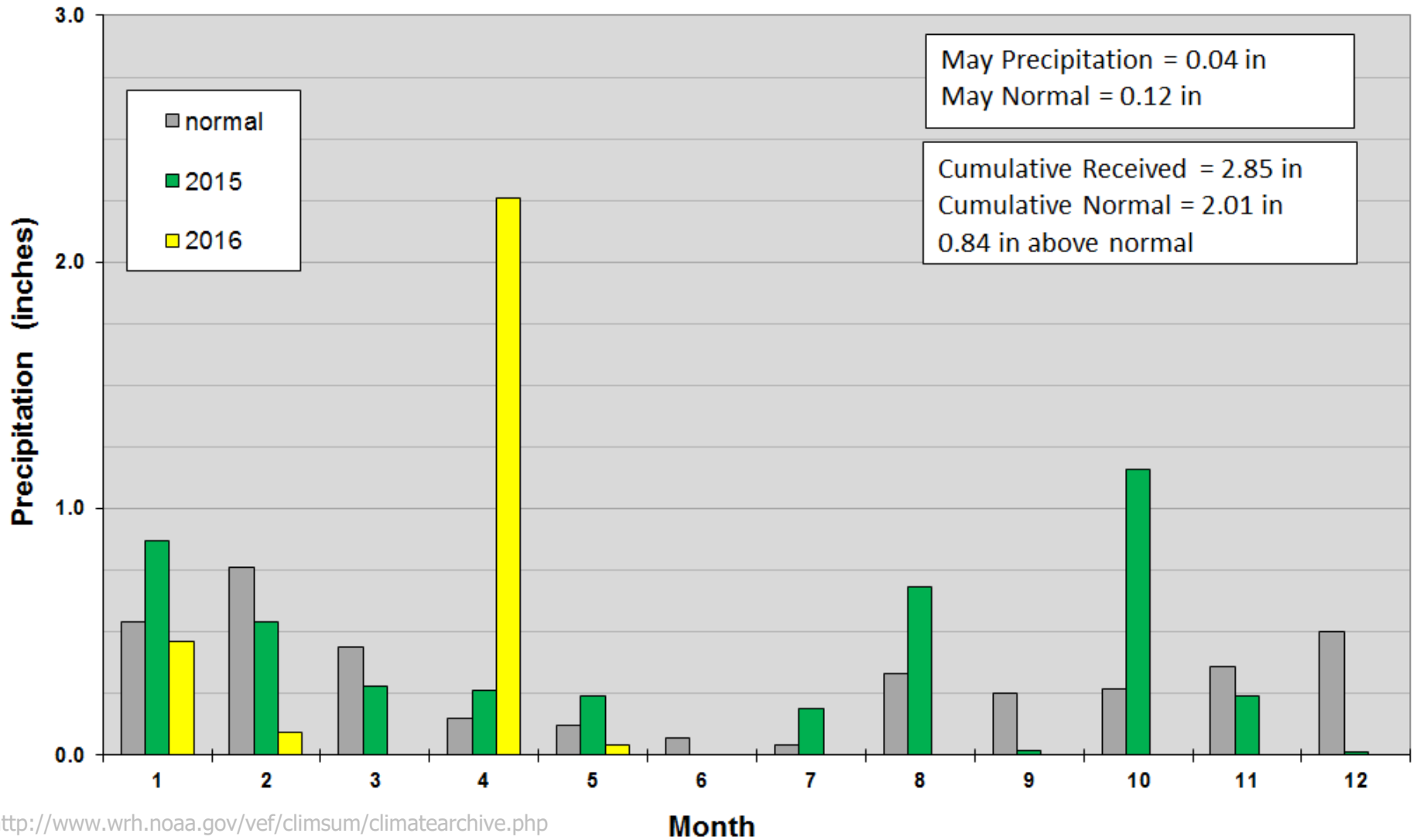
(Averaged by Basin)



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

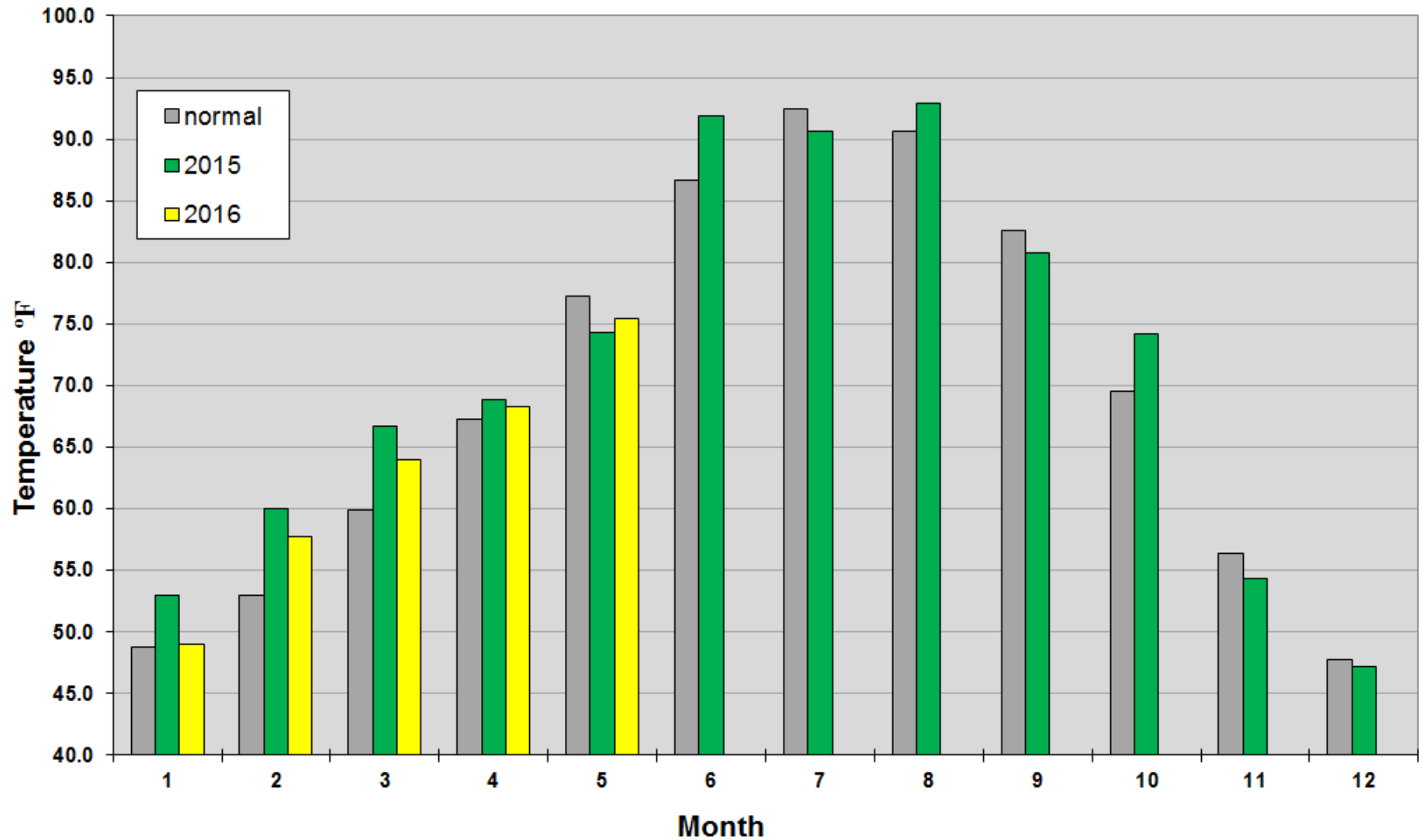
Las Vegas Precipitation

Monthly Precipitation at McCarran Airport, Las Vegas, NV



Las Vegas Average Temperature

Average Monthly Temperature at McCarran Airport, Las Vegas, NV



Water Use in Southern Nevada



Water Use in Southern Nevada

January – May 2016

2016: Consumptive Use = 77,435* af

2015: Consumptive Use = 74,685 af

Difference = 2,750 af

*Subject to final accounting.



Water Use Comparison

January - April

Water Use	2015 Acre Feet	2016 Acre Feet	Difference Acre Feet	% Change
Las Vegas Wash Gauged Flow	92,984	96,388	3,404	3.7%
Diversions	167,323	169,462	2,139	1.3%
Return Flow Credit	92,638	92,027	-611	-0.7%
Consumptive Use	74,685	77,435	2,750	3.7%

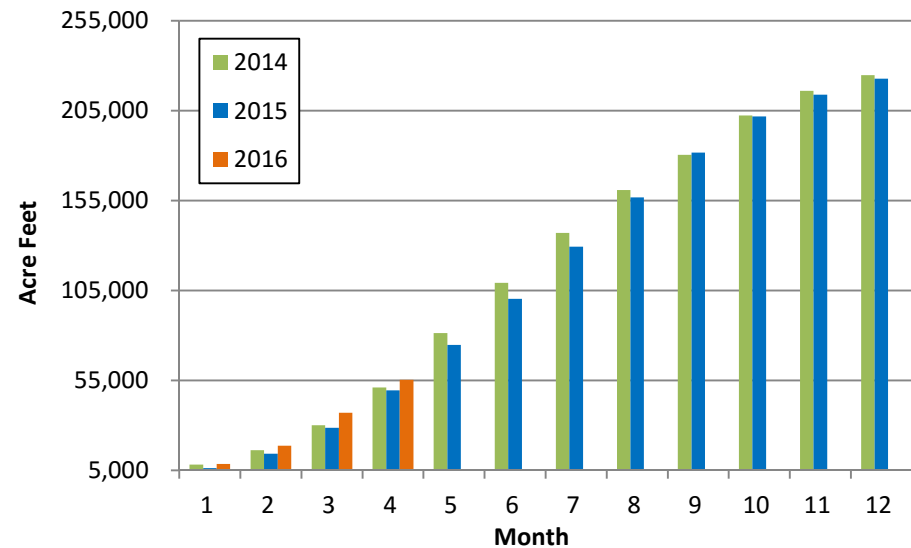
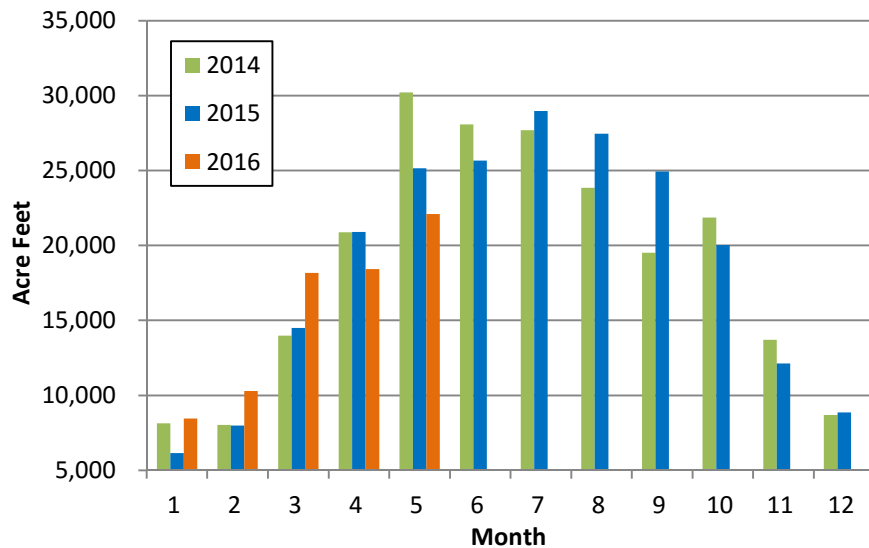


Monthly consumptive use

	2014 (af)	2015 (af)	2016 (af)
Jan	8,128	6,146	8,451
Feb	8,027	7,994	10,294
Mar	13,981	14,490	18,170
Apr	20,871	20,902	18,425
May	30,199	25,153	22,096
Jun	28,079	25,653	
Jul	27,686	28,968	
Aug	23,856	27,450	
Sep	19,514	24,940	
Oct	21,871	20,026	
Nov	13,714	12,117	
Dec	8,697	8,859	
Total	224,622	222,699	

Cumulative consumptive use

	2014 (af)	2015 (af)	2016 (af)
Jan	8,128	6,146	8,451
Feb	16,155	14,140	18,744
Mar	30,136	28,630	36,914
Apr	51,006	49,532	55,339
May	81,206	74,685	77,435
Jun	109,285	100,338	
Jul	136,971	129,307	
Aug	160,827	156,757	
Sep	180,341	181,697	
Oct	202,212	201,723	
Nov	215,926	213,840	
Dec	224,622	222,699	
Total	224,622		



Colorado River Commission of Nevada

Questions?

Warren Turkett, Ph.D.
wturkett@crc.nv.gov

