Colorado River Commission of Nevada

Natural Resources Group
Hydrologic Update
March 17, 2016

Unregulated Inflow Into Lake Powell

As of March 14, 2016

	MAF*	% Avg**
• WY 2016 (Projected):	9.02	83%
• April-July 2016 (Projected):	5.7	80%
• February (observed):	0.40	101%
• March (forecasted):	0.70	105%

***MAF=Million Acre-Feet**

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

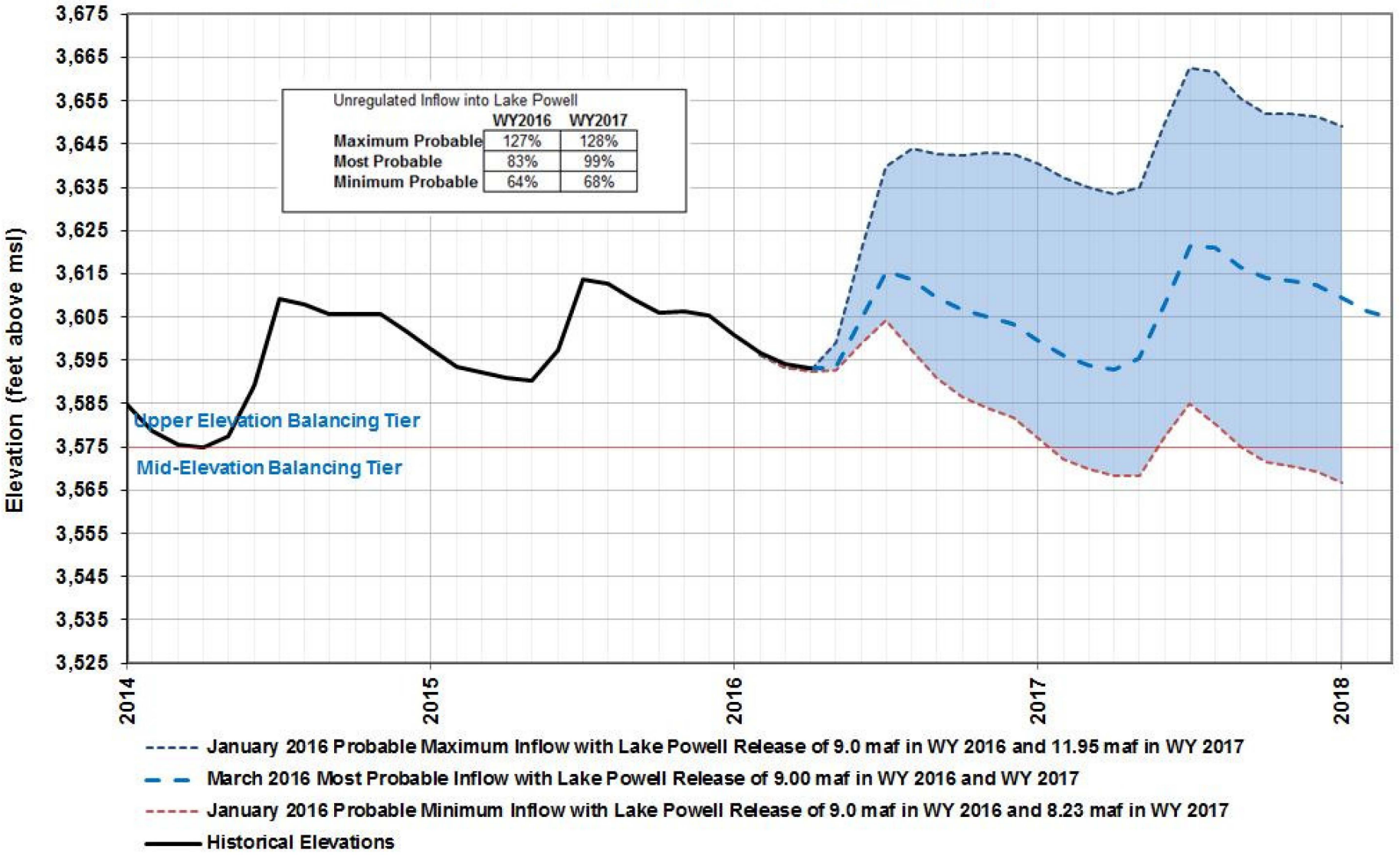
Storage Conditions

As of March 14, 2016

		Percent of Capacity	Δ from last year
Lake Mead elev.	1,082.84 ft	39%	↓ 4.57 ft
Lake Powell elev.	3,593.72 ft	46%	↑ 1.91 ft
Total System Storage (3/2016)	29.05 maf	49%	↓ 0.04 maf
Total System Storage (3/2015)	29.09 maf	49%	

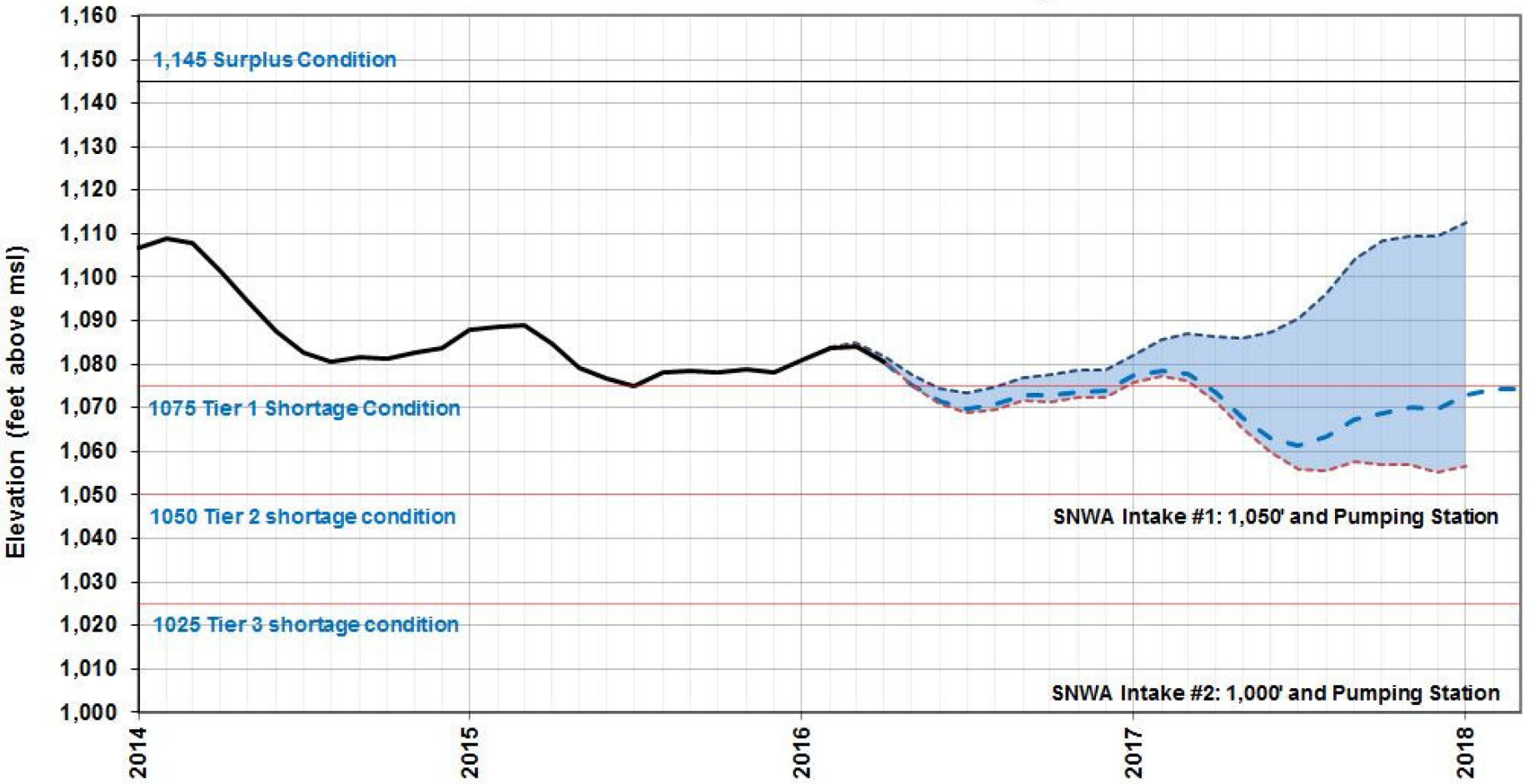
Lake Powell Projections

Reclamation's March 2016 24-Month Study



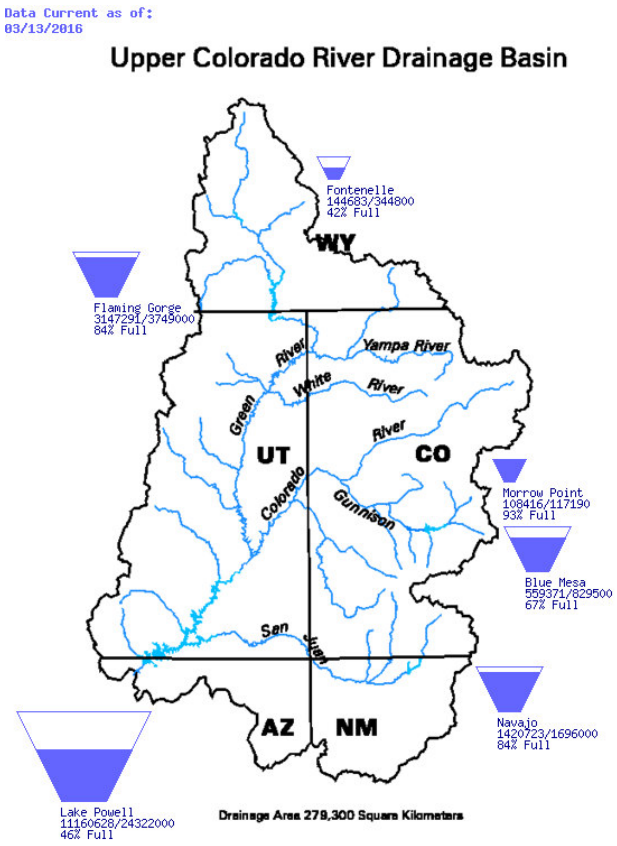
Lake Mead Projections

Reclamation's March 24-Month Study



Reservoir Storage

As of March 14, 2016



Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	16,758	97%	5,397,242
	Flaming Gorge	3,749,000	3,147,291	84%	
	Fontenelle	344,800	144,683	42%	
	Morrow Point	117,190	108,416	93%	
	Blue Mesa	829,500	559,371	67%	
	Navajo	1,696,000	1,420,723	84%	
	Lake Powell	24,322,000	11,160,628	46%	
Lower Basin	Lake Mead	26,120,000	10,243,000	39%	
	Lake Mohave	1,809,800	1,664,100	92%	2,246,200
	Lake Havasu	619,400	582,100	94%	
	TOTAL	59,625,046	29,047,070	49%	

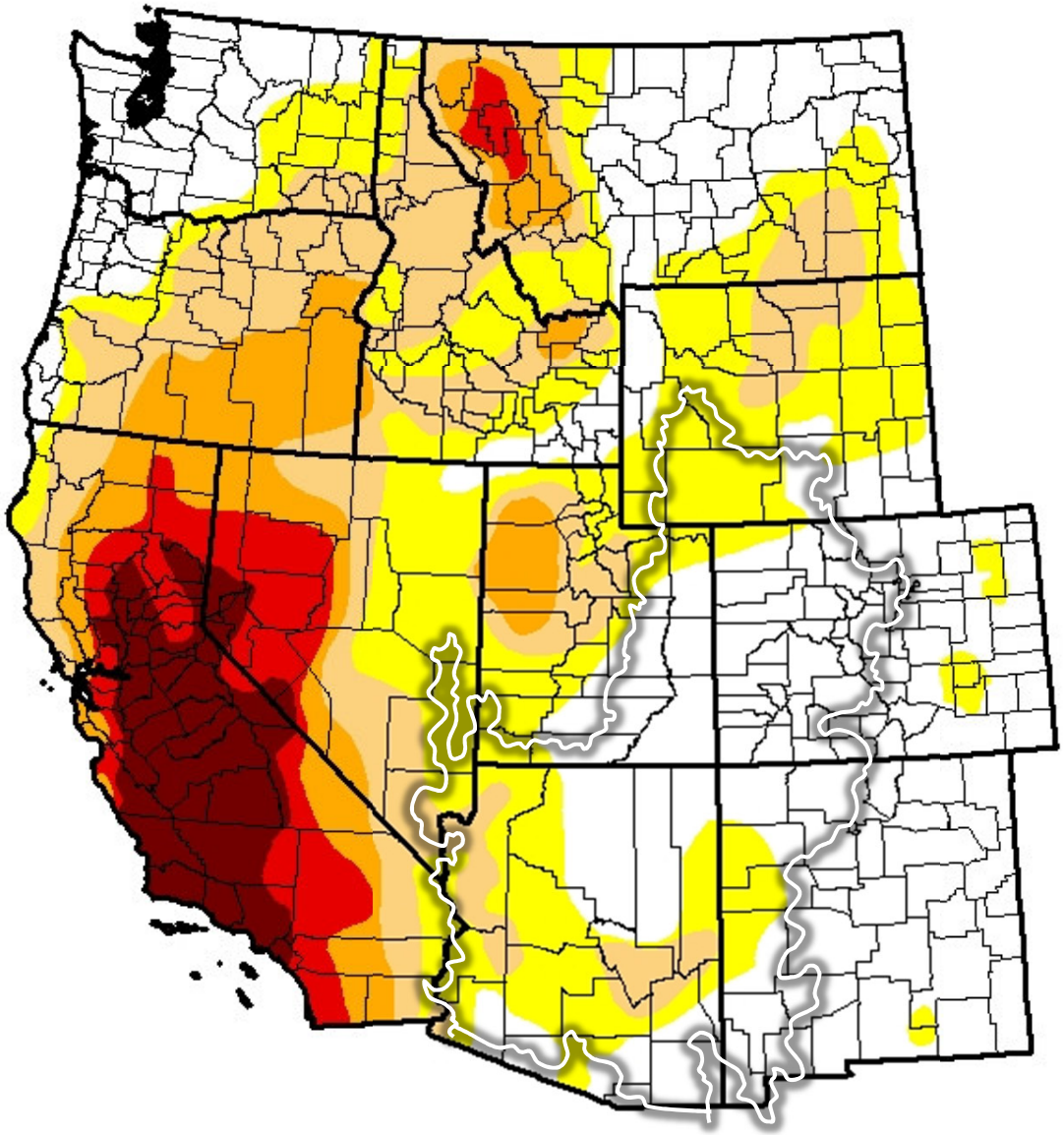
**Data current as 3/14/2016*

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

http://www.usbr.gov/uc/water/rsvrs/ops/r40day.html

U.S. Drought Monitor

West



March 8, 2016

(Released Thursday, Mar. 10, 2016)

Valid 7 a.m. EST

Intensity:

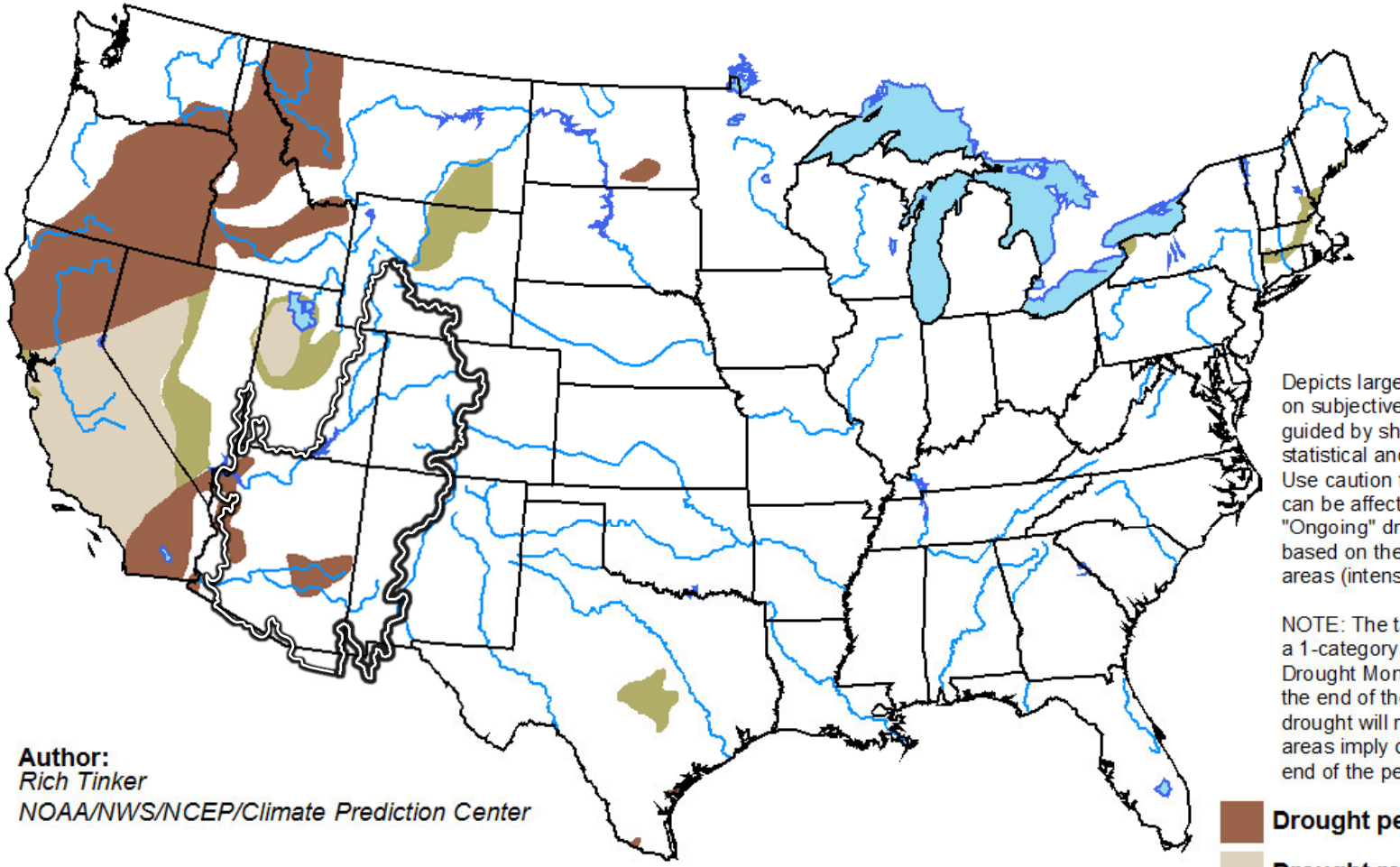
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

http://droughtmonitor.unl.edu/Home/RegionalDroughtMonitor.aspx?west

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for February 18 - May 31, 2016
Released February 18, 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).

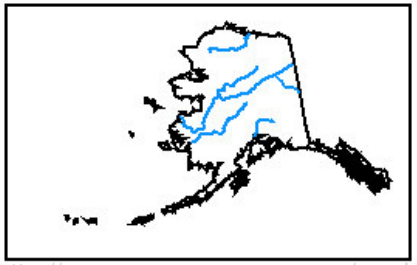
Drought persists

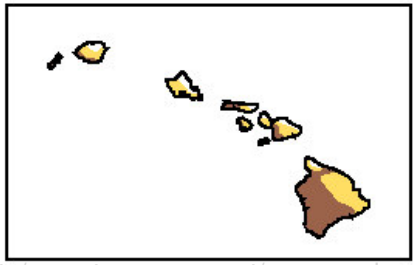
Drought remains but improves

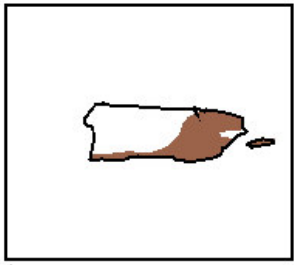
Drought removal likely

Drought development likely

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center







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

Precipitation – Colorado River Basin

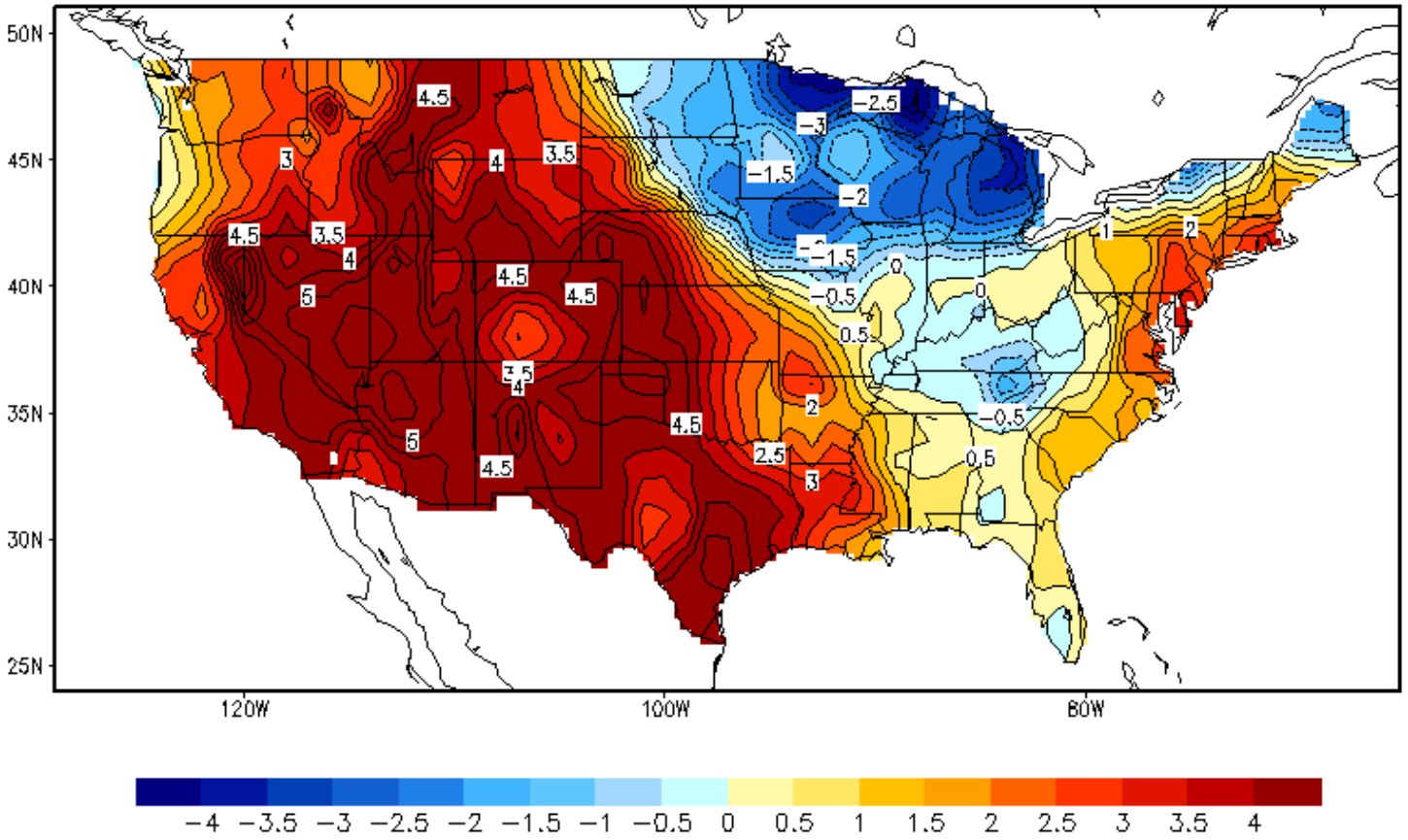
As of March 14, 2016

	Upper Colorado Basin
WY Precip to Date	91% (14.7″)
Current Basin Snowpack	90% (12.8″)

(Avg 1981-2010)

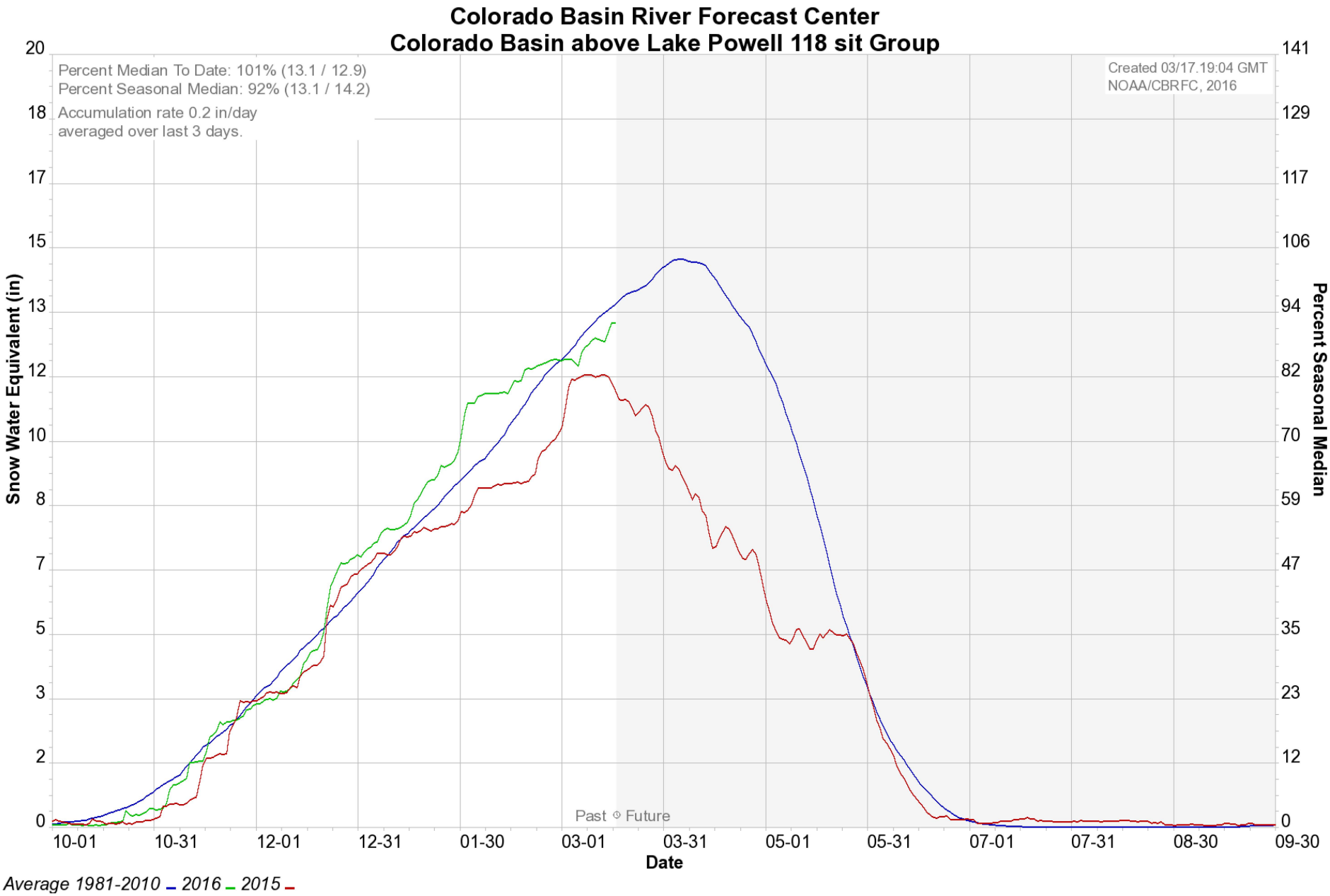
Temperature Deviations

Latest Month Averaged Temperature Anomaly



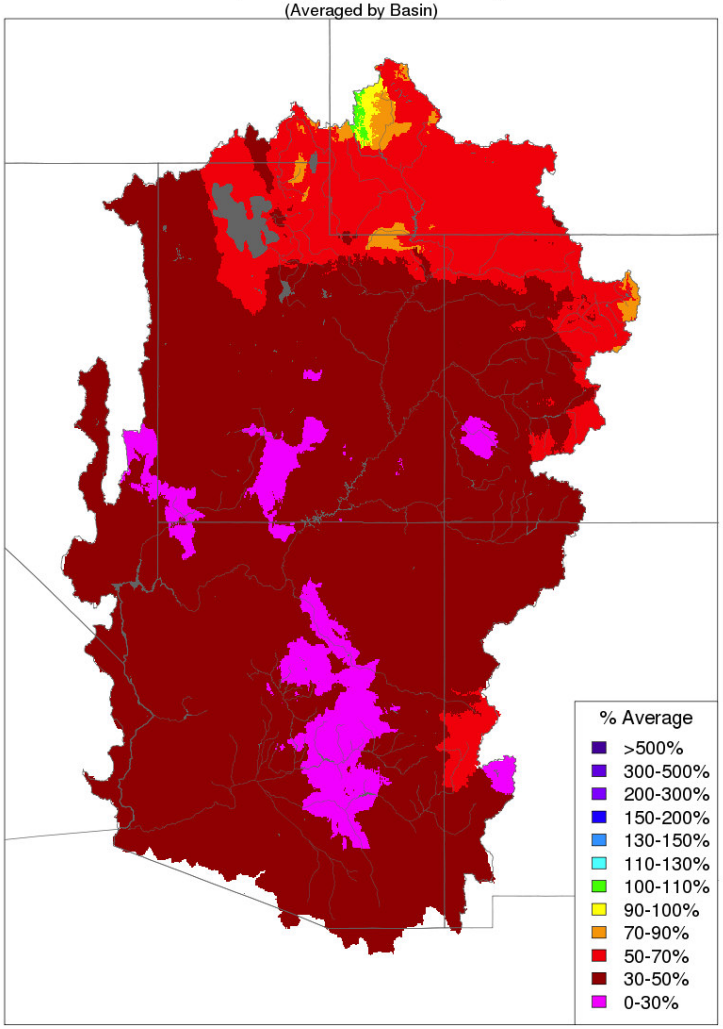
Warmer than average temperatures in February caused some areas of snow accumulation to start melting early. Historically, March and some of April can contribute to snowpack accumulation. To get above average snowpack for this water year, temperature needs to decrease and precipitation needs to increase through April. Some recent storms have improved snowpack conditions.

http://www.cbrfc.noaa.gov/climate/climoData.php


Colorado Basin River Forecast Center
Colorado Basin above Lake Powell 118 sit Group
Percent Median To Date: 101% (13.1 / 12.9)
Percent Seasonal Median: 92% (13.1 / 14.2)
Accumulation rate 0.2 in/day
averaged over last 3 days.
Created 03/17.19:04 GMT
NOAA/CBRFC, 2016
Snow Water Equivalent (in)
Percent Seasonal Median
Past
Future
Date
10-01
10-31
12-01
12-31
01-30
03-01
03-31
05-01
05-31
07-01
07-31
08-30
09-30
Average 1981-2010
2016
2015

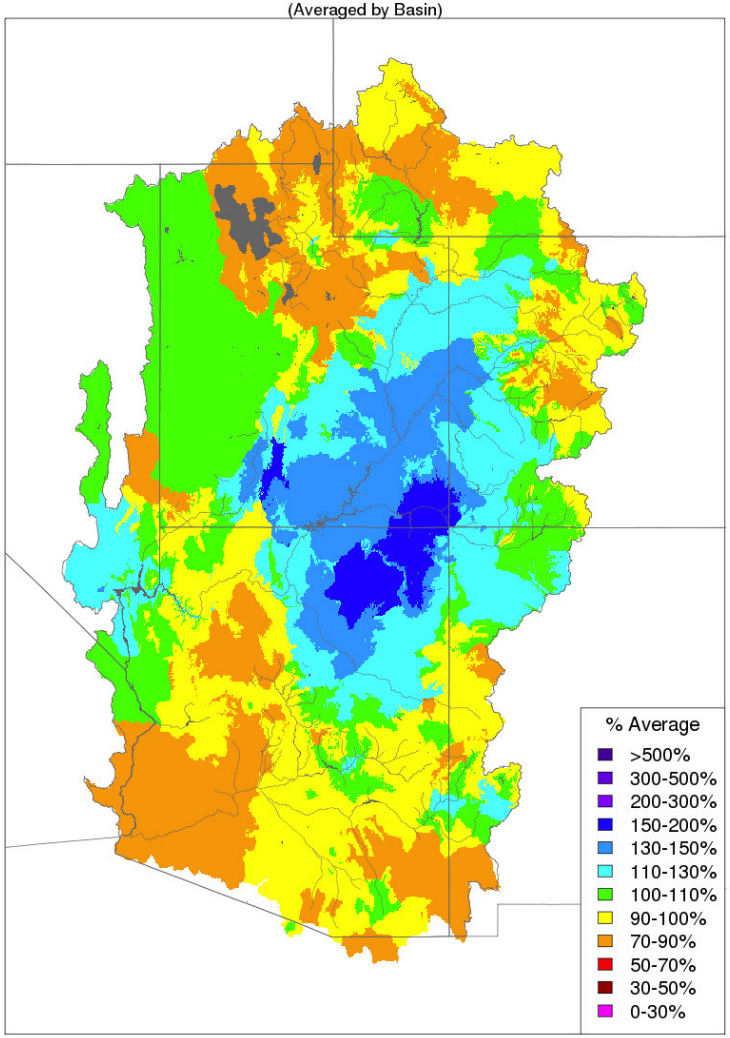
Precipitation

Monthly Precipitation - February 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 - February 2016
(Averaged by Basin)



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

http://www.cbrfc.noaa.gov/product/mapsum/mapsum.php?area=cbrfc

Water Use in Southern Nevada

Water Use in Southern Nevada

January – 2016

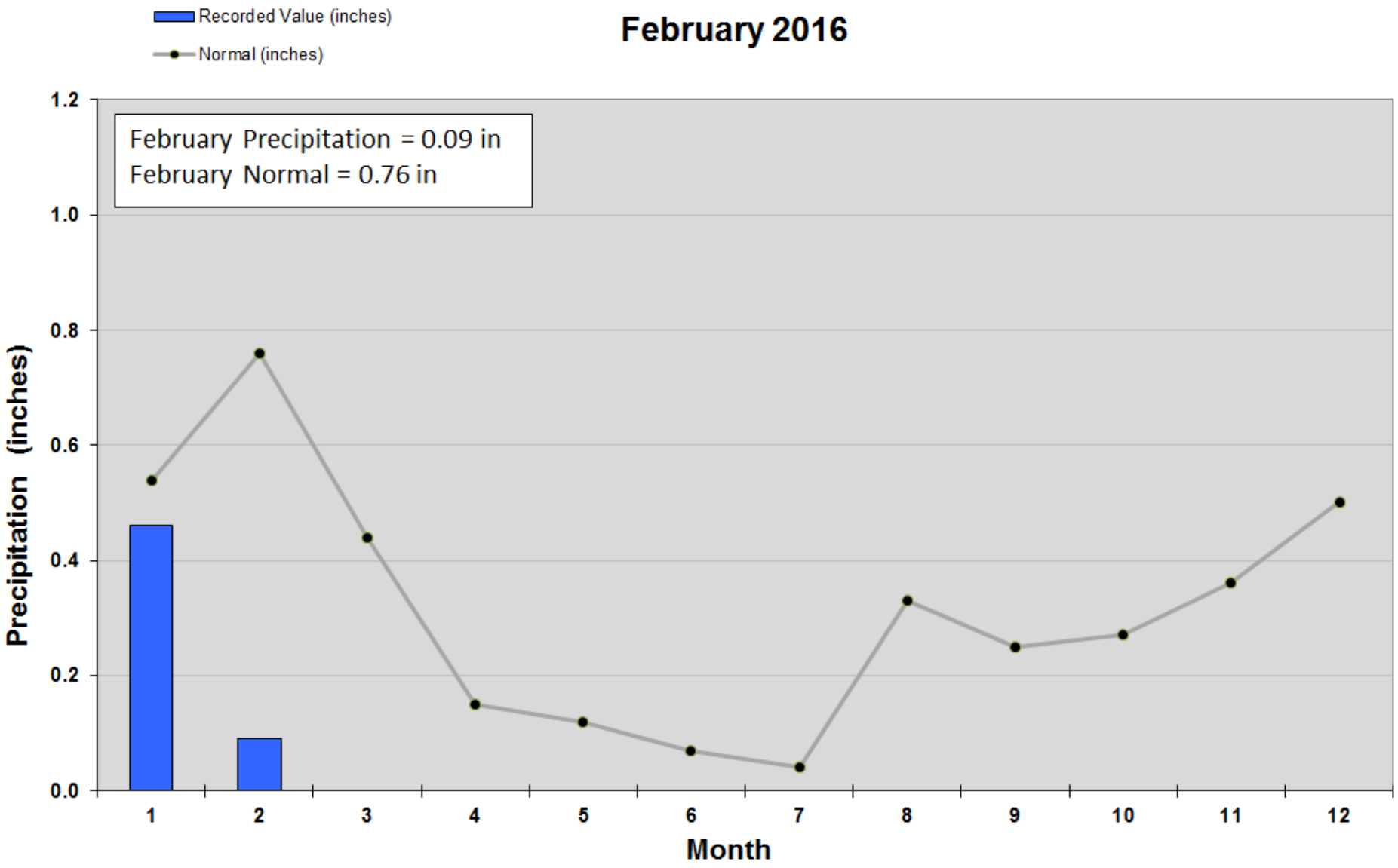
2016*: Consumptive Use = 8,451 af

2015*: Consumptive Use = 6,146 af

Difference = 2,305 af

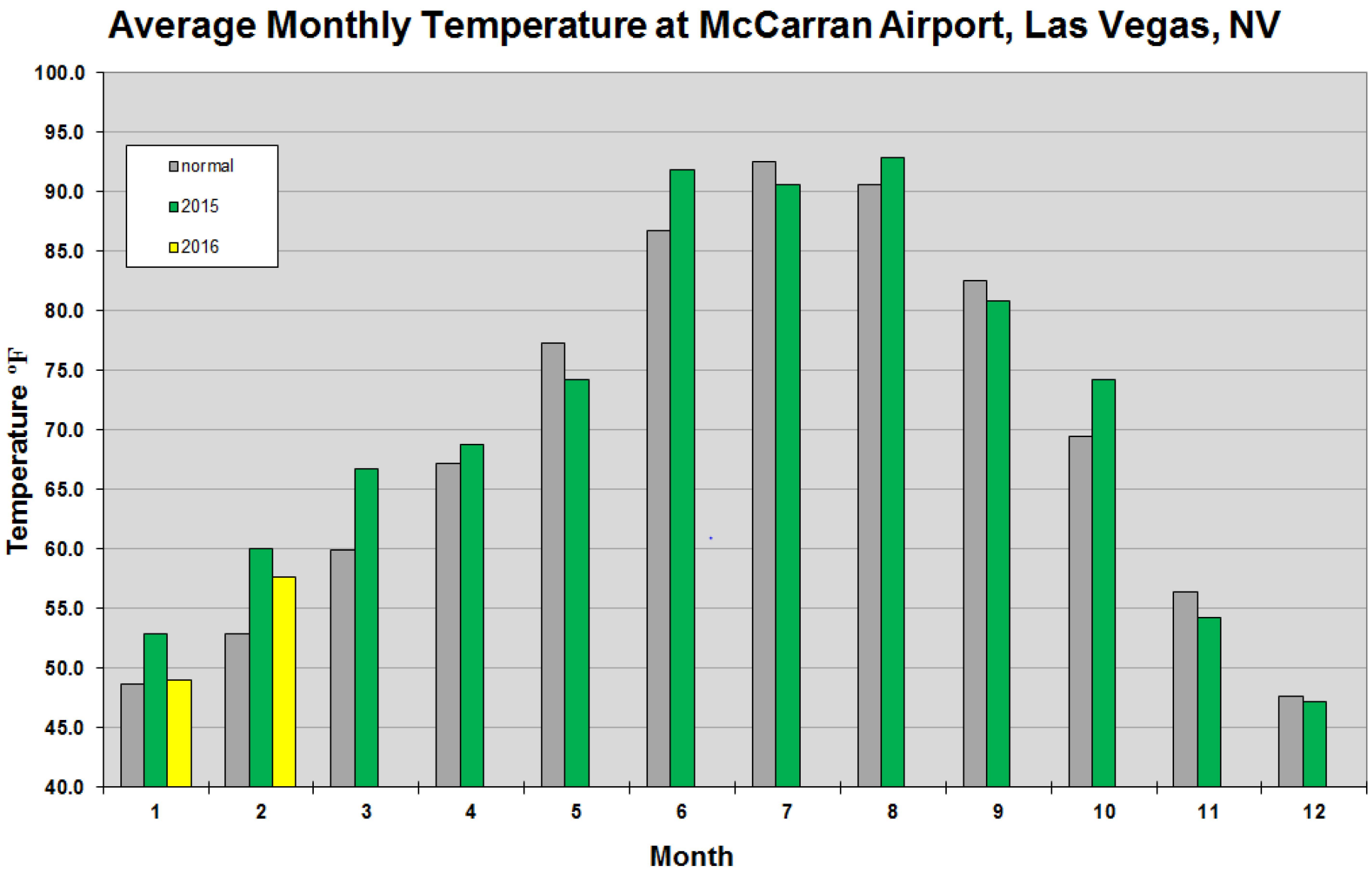
*Subject to final accounting.

Monthly Precipitation at McCarran International Airport, Las Vegas, NV



http://www.wrh.noaa.gov/vef/climsum/climatearchive.php

Las Vegas Average Temperature



Colorado River Commission of Nevada

Questions?

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