

# Colorado River Commission of Nevada

## Natural Resources Group Hydrologic Update November 10, 2015



# Unregulated Inflow Into Lake Powell

As of November 2, 2015

	MAF*	% Avg**
• WY 2015 (observed):	10.17	94%
• April-July 2015 (observed):	6.71	94%
• October (observed):	0.54	104%
• November (forecasted):	0.40	85%

\*MAF=Million Acre-Feet

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



# Storage Conditions

As of November 9, 2015

		<u>Percent of Capacity</u>	<u>Δ from last year</u>
Lake Mead elev.	1079.14 ft	38%	↓ 3.11 ft
Lake Powell elev.	3,606.35 ft	51%	↓ 1.01 ft
Total System Storage (11/2015)	30.12 maf	51%	↑ 0.22 maf
Total System Storage (11/2014)	29.90 maf	50%	



# Reservoir Storage

As of November 8, 2015

## Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	16,545	95%	5,778,714
	Flaming Gorge	3,749,000	3,360,203	90%	
	Fontenelle	344,800	235,522	68%	
	Morrow Point	117,190	97,769	83%	
	Blue Mesa	829,500	673,229	81%	
	Navajo	1,696,000	1,395,446	82%	
	Lake Powell	24,322,000	12,367,397	51%	
Lower Basin	Lake Mead	26,120,000	9,940,000	38%	2,033,800
	Lake Mohave	1,809,800	1,483,600	82%	
	Lake Havasu	619,400	550,200	89%	
	<b>TOTAL</b>	<b>59,625,046</b>	<b>30,119,911</b>	<b>51%</b>	

\*Data current as 11/8/2015

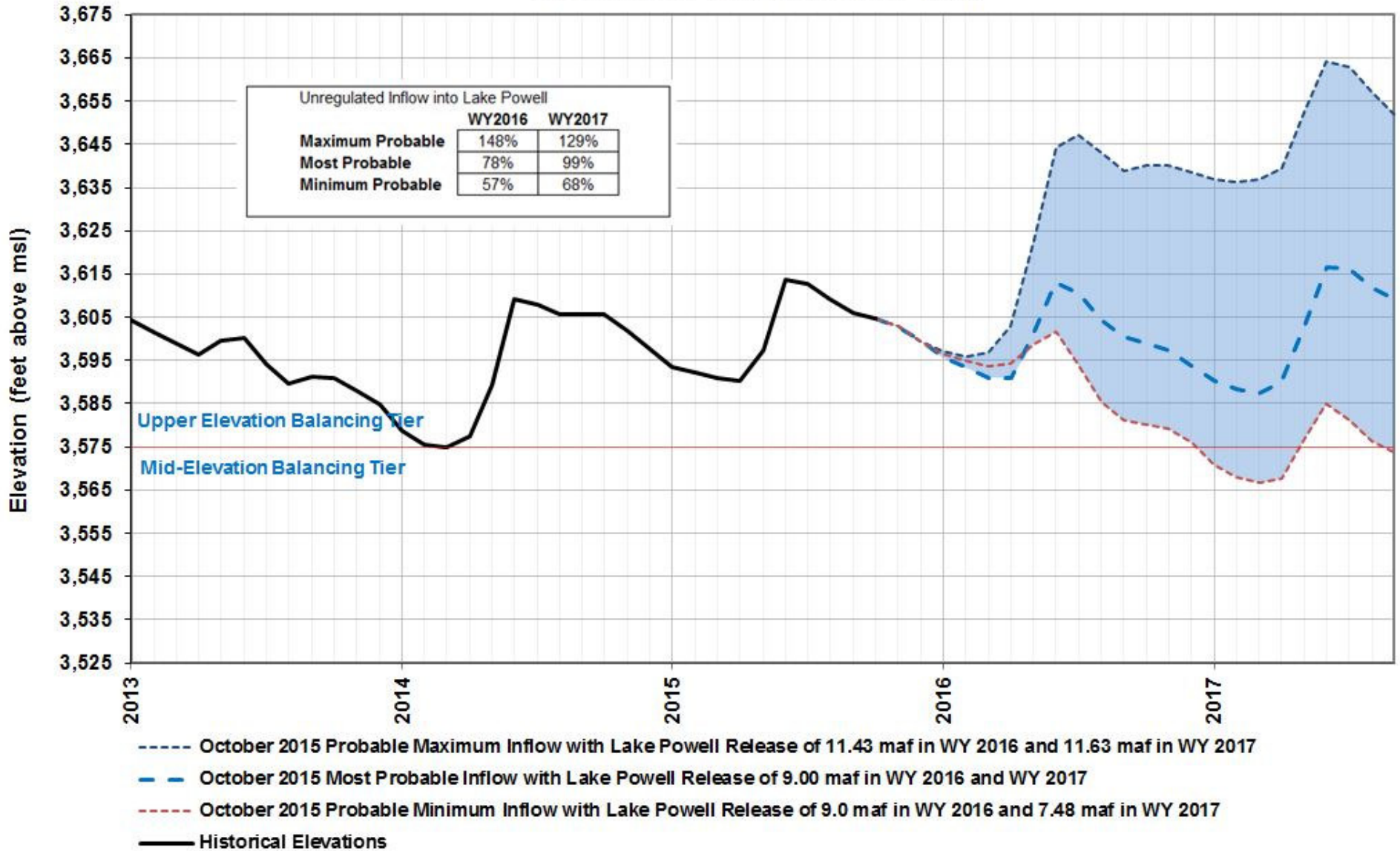
<http://www.usbr.gov/lc/region/g4000/hourly/levels.html>

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



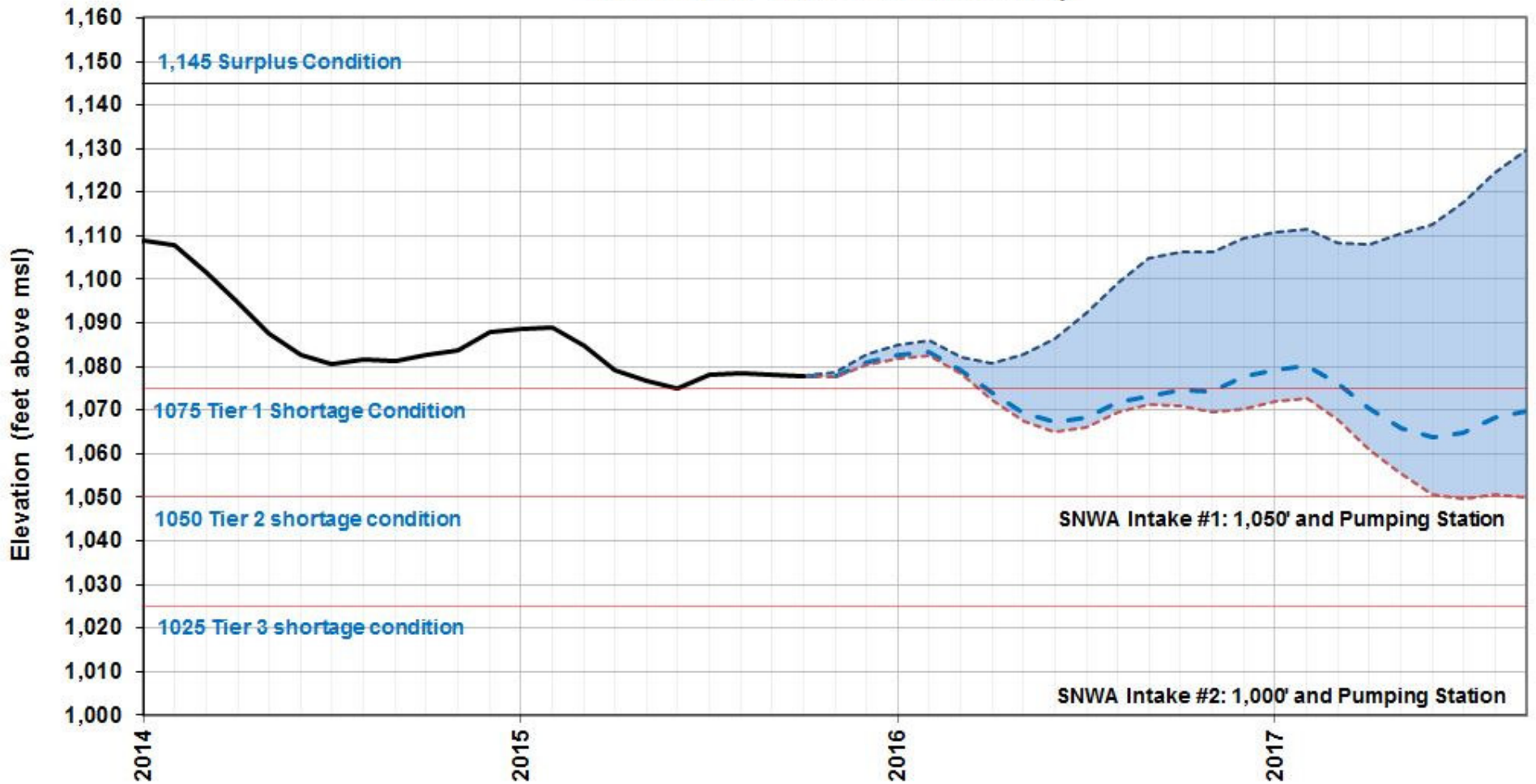
# Lake Powell Projections

## Reclamation's October 24-Month Study



# Lake Mead Projections

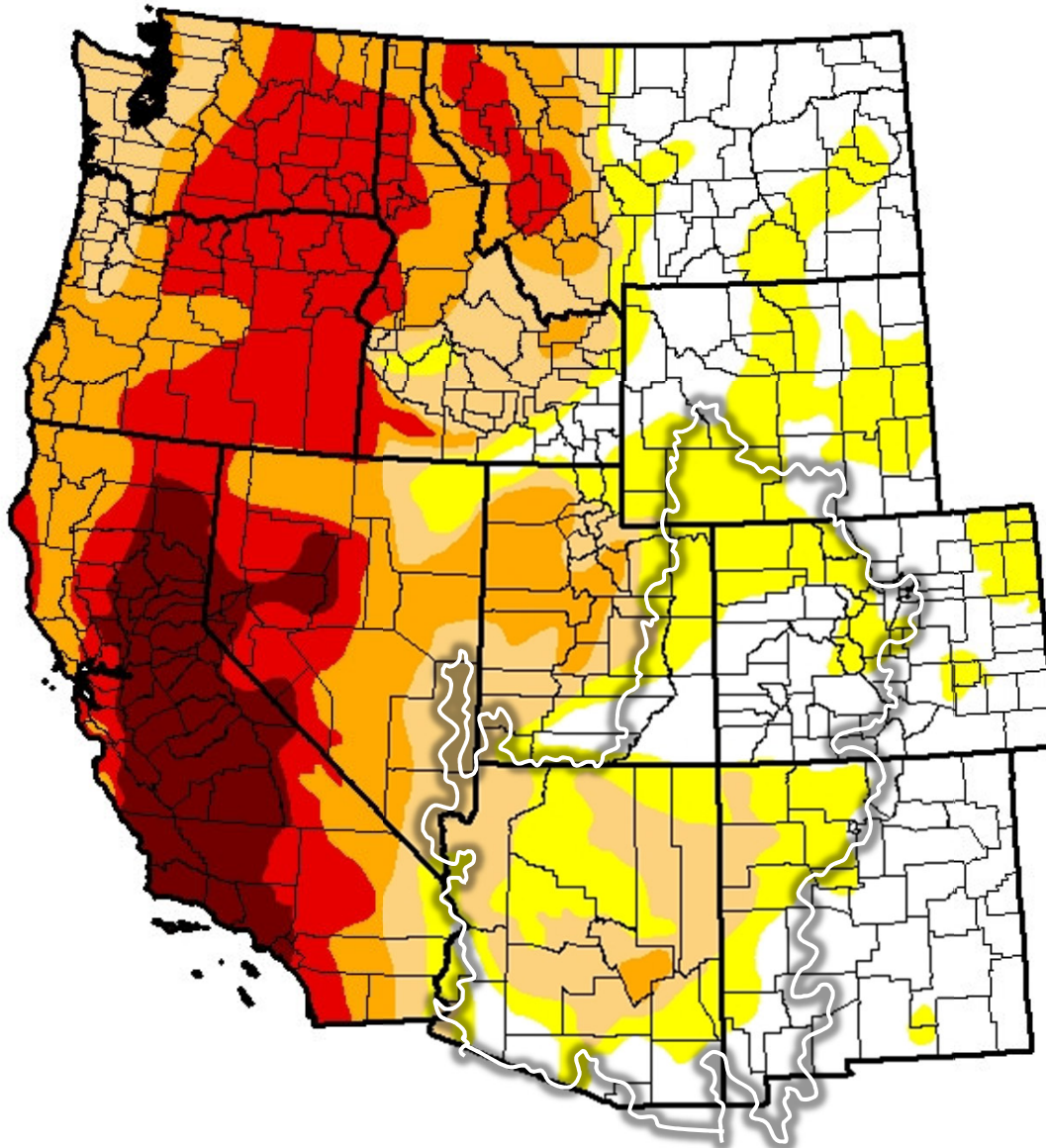
## Reclamation's October 24-Month Study



- October 2015 Probable Maximum Inflow with Lake Powell Release of 11.43 maf in WY 2016 and 11.63 maf in WY 2017
- - - - - October 2015 Most Probable Inflow with Lake Powell Release of 9.00 maf in WY 2016 and WY 2017
- October 2015 Probable Minimum Inflow with Lake Powell Release of 9.0 maf in WY 2016 and 7.48 maf in WY 2017
- Historical Elevations

# U.S. Drought Monitor

## West








**November 3, 2015**

*(Released Thursday, Nov. 5, 2015)*

Valid 7 a.m. EST

### Intensity:

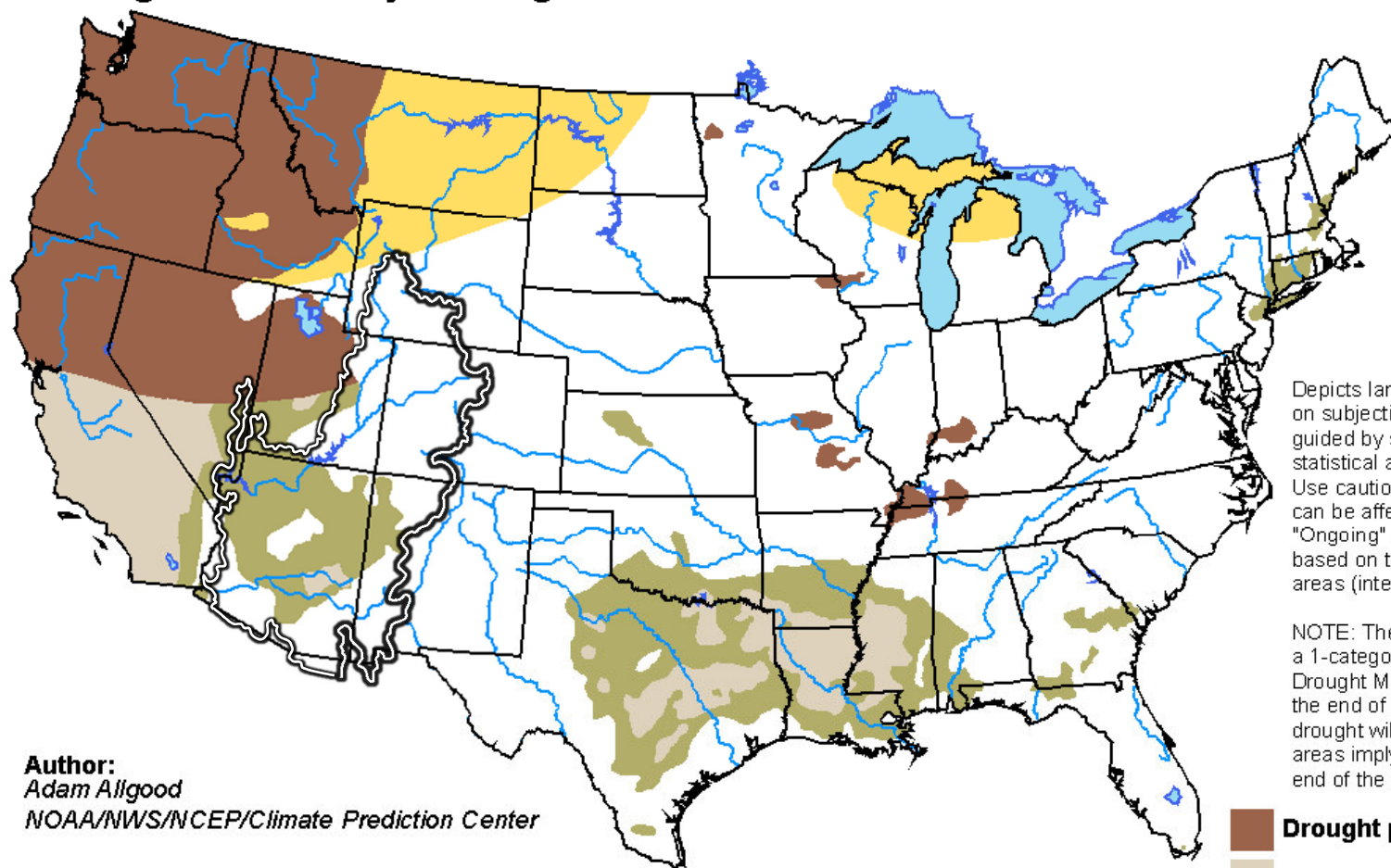
-  D0 - Abnormally Dry
-  D1 - Moderate Drought
-  D2 - Severe Drought
-  D3 - Extreme Drought
-  D4 - Exceptional Drought



# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period




Valid for October 15 - January 31, 2016  
Released October 15, 2015

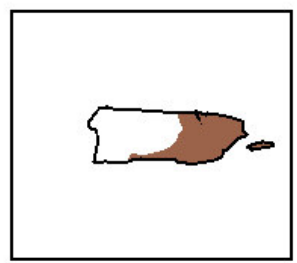
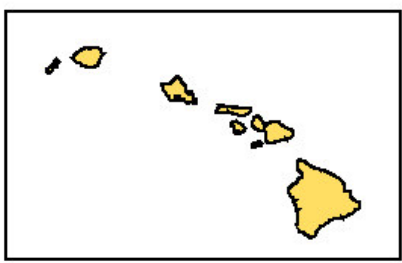
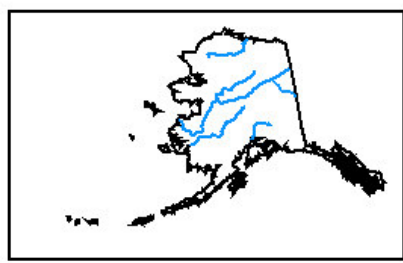


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

**Author:**  
Adam Allgood  
NOAA/NWS/NCEP/Climate Prediction Center

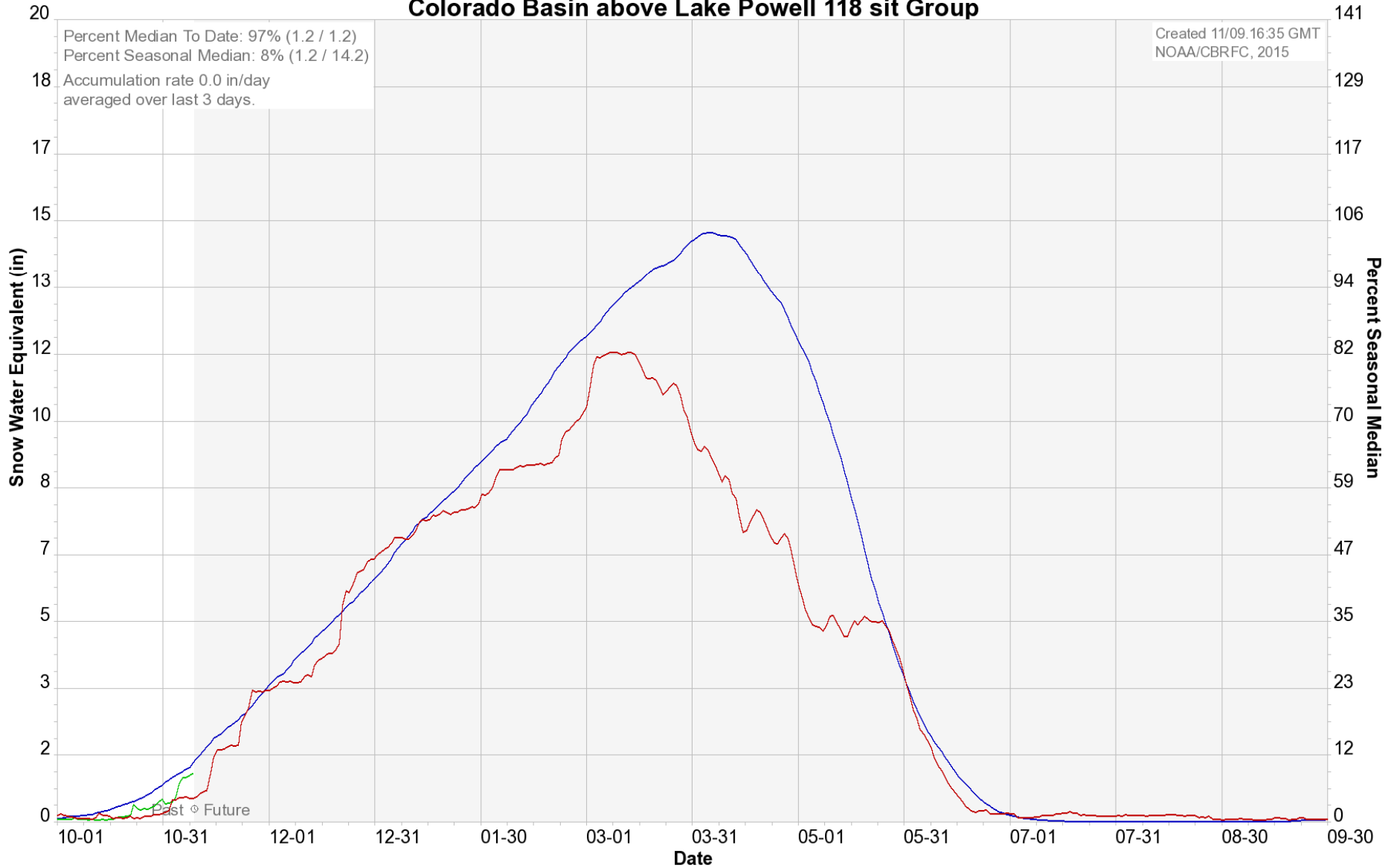
-  **Drought persists/intensifies**
-  **Drought remains but improves**
-  **Drought removal likely**
-  **Drought development likely**



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



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



Average 1981-2010 — 2016 — 2015 —

# Precipitation – Colorado River Basin

As of November 9, 2015

## Upper Colorado Basin

WY Precip to Date

94% (3.2")

Current Basin Snowpack

NA

(Avg 1981-2010)

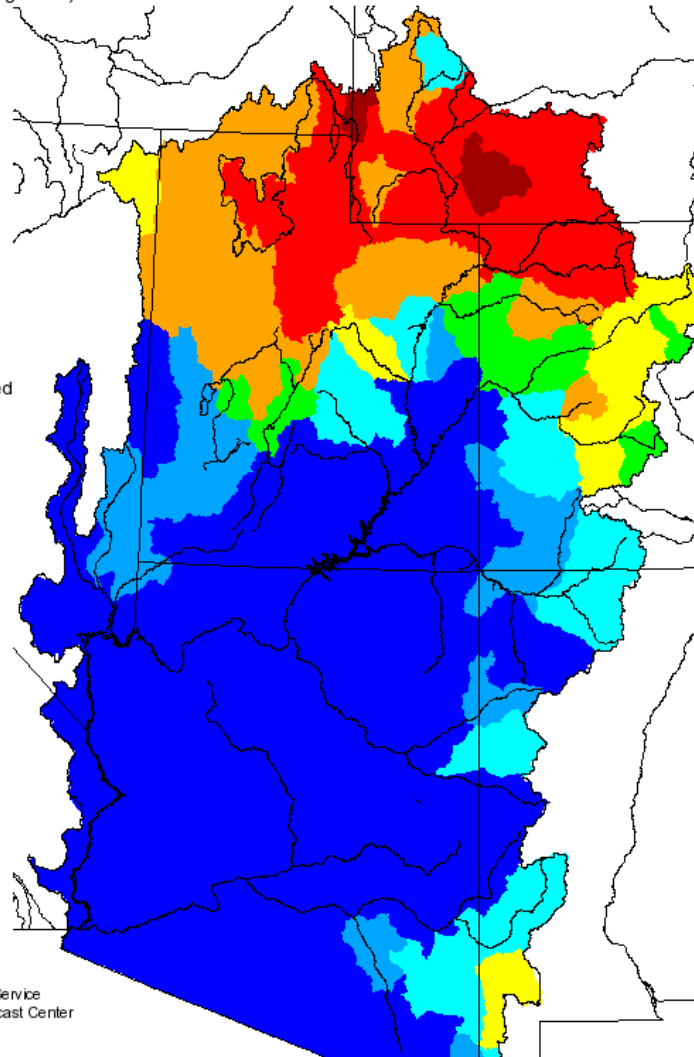
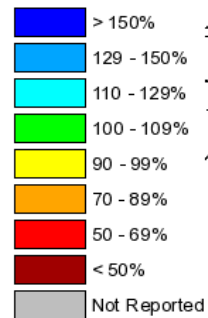


# Precipitation

## Monthly Precipitation for October 2015

(Averaged by Hydrologic Unit)

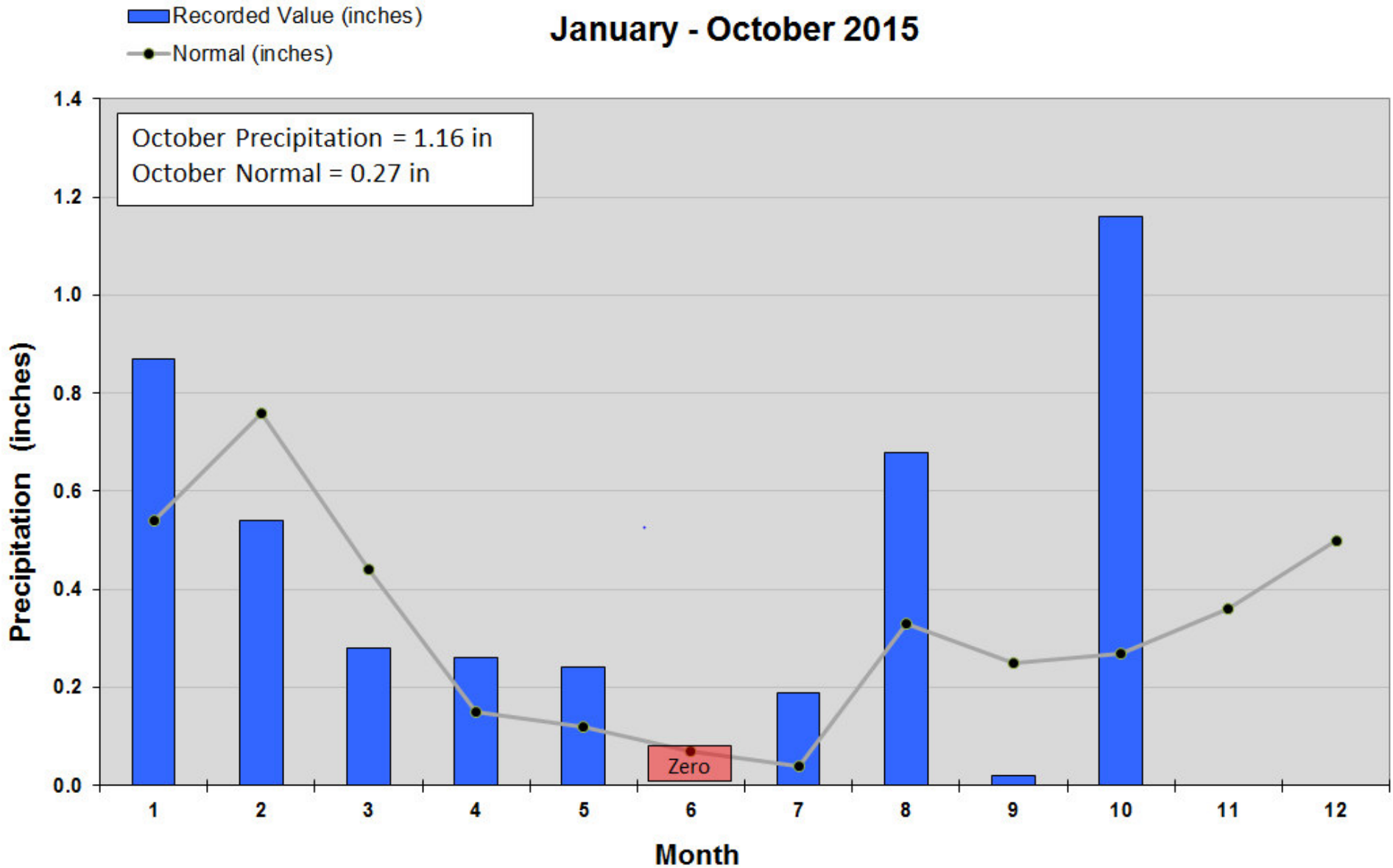
### % Average



Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

# Monthly Precipitation at McCarran International Airport, Las Vegas, NV

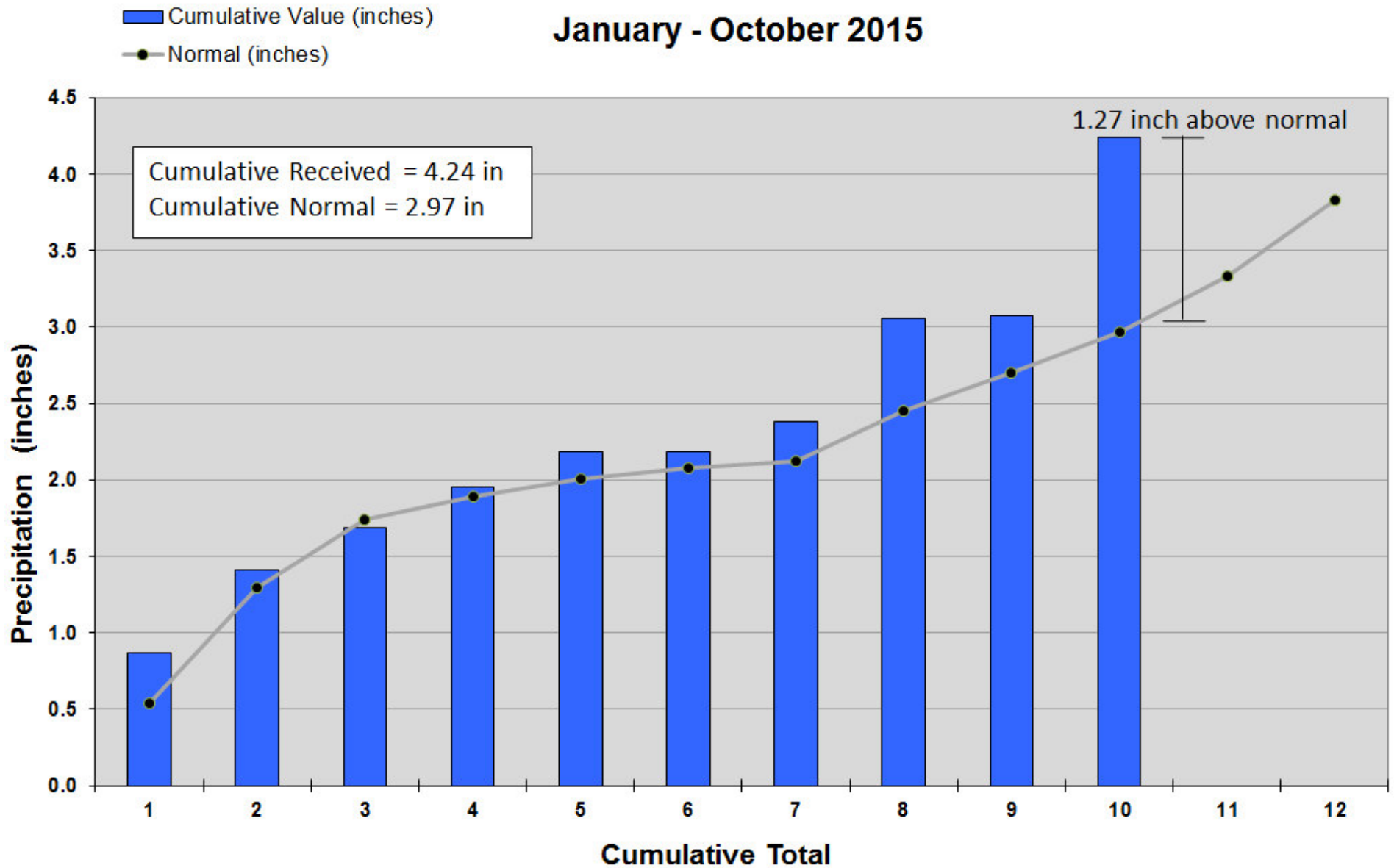
January - October 2015





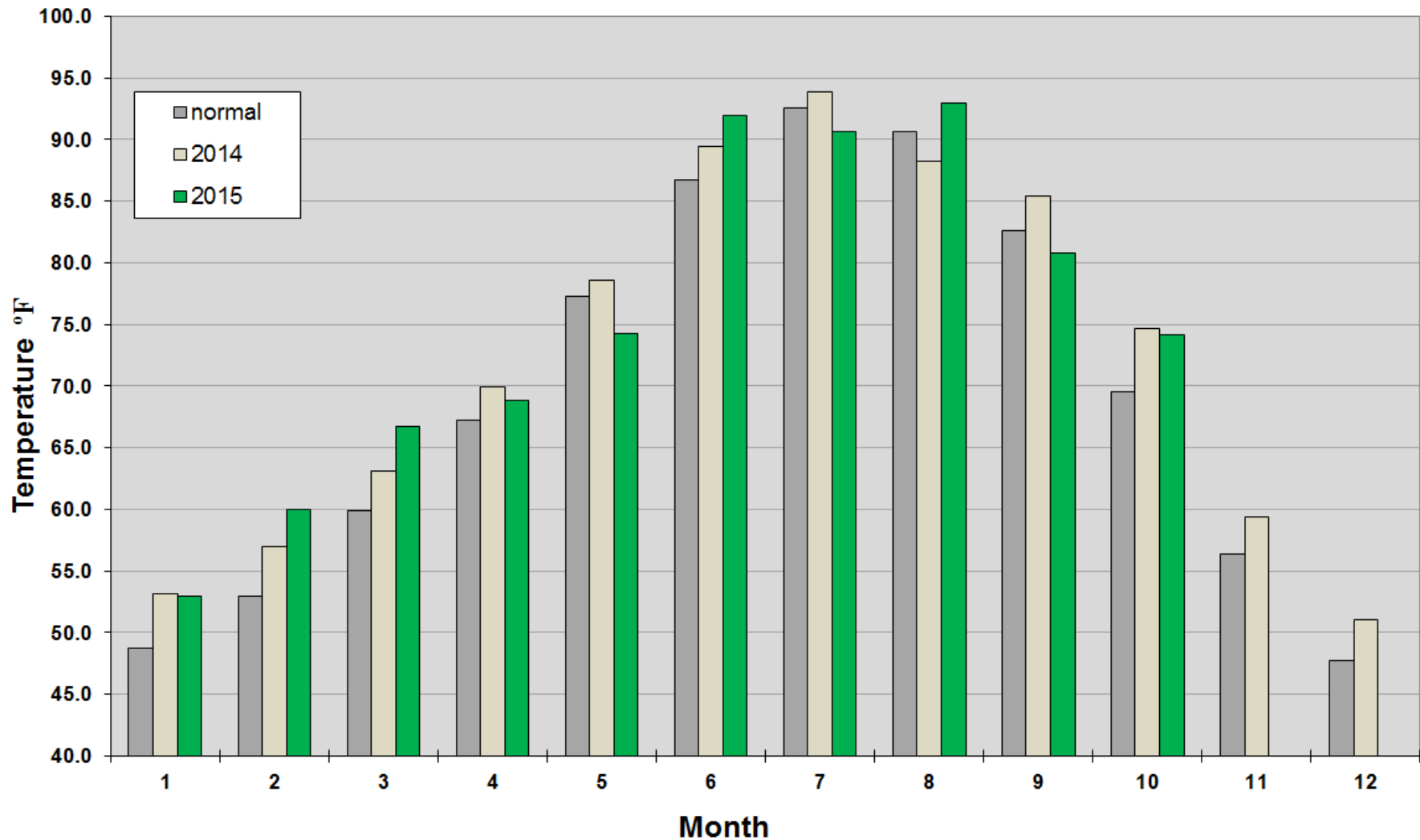
# Cumulative Precipitation at McCarran International Airport, Las Vegas, NV

January - October 2015

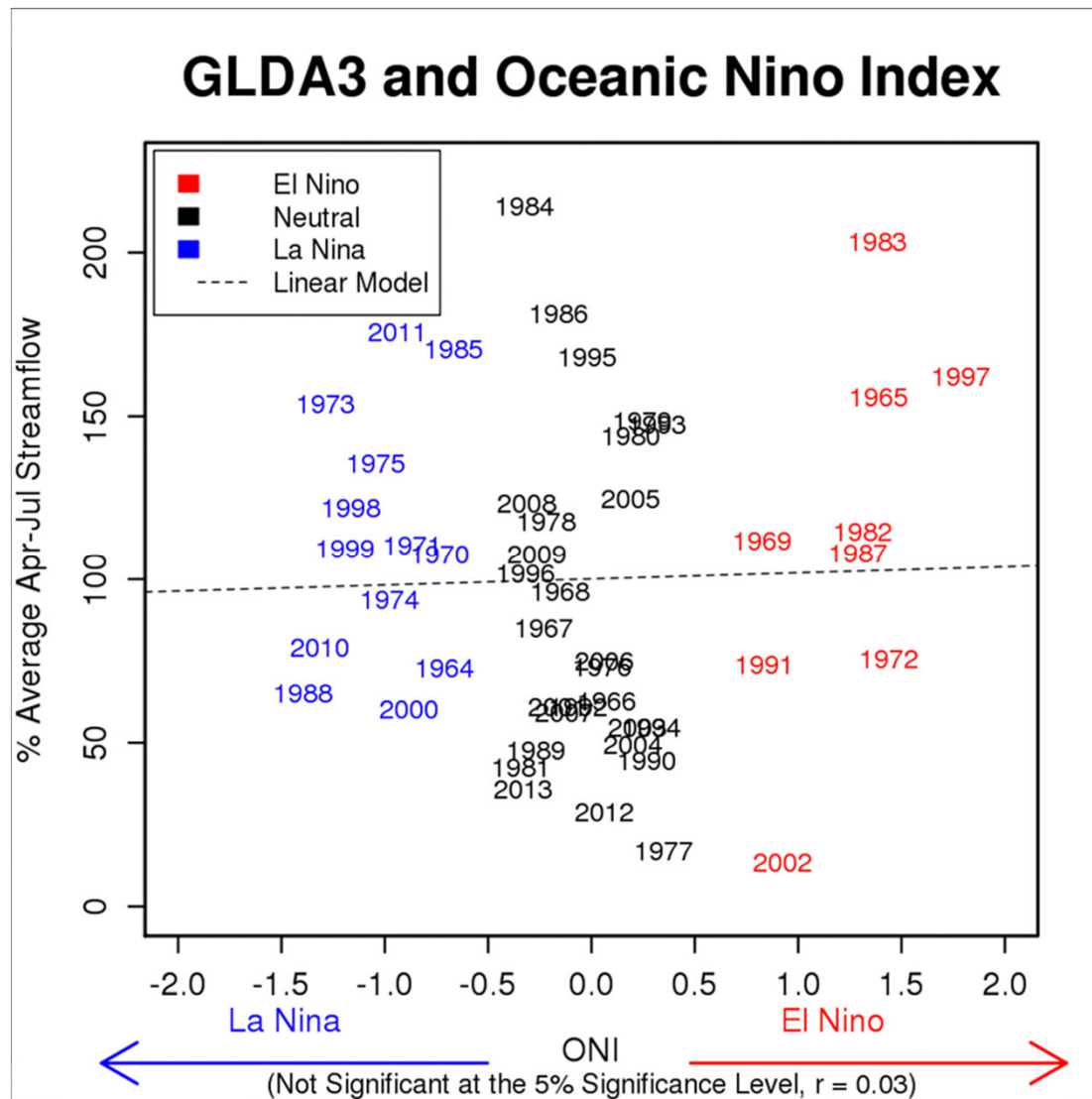


# Las Vegas Average Temperature

Average Monthly Temperature at McCarran Airport, Las Vegas, NV



# El-Nino Inflow to Lake Powell



# Water Use in Southern Nevada





# Water Use in Southern Nevada

January – September 2015

2015\*: Consumptive Use = 181,697 af

2014: Consumptive Use = 180,341 af

**Difference = 1,356 af**

\*Subject to final accounting.



# Colorado River Commission of Nevada

## Questions?

Warren Turkett  
wturkett@crc.nv.gov

