

# Colorado River Commission of Nevada

## Natural Resources Group Hydrologic Update August 12, 2014



# Unregulated Inflow



# Unregulated Inflow Into Lake Powell

As of August 11, 2014

	MAF*	% Avg**
• WY 2014 (forecasted):	10.15	94%
• April-July 2014 (forecasted):	6.92	97%
• July (observed):	.84	77%
• August (forecasted):	.45	90%

\*MAF=Million Acre-Feet

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



# Storage Conditions

As of August 11, 2014

		<u>Percent of Capacity</u>	<u>Δ from last year</u>
Lake Mead elev.	1080.28 ft	38%	↓ 25.92 ft
Lake Powell elev.	3,607.56 ft	51%	↑ 15.03 ft
Total System Storage (8/2014)	30.40 maf	51%	↑ .30 maf
Total System Storage (8/2013)	30.10 maf	51%	



# Reservoir Storage

As of August 11, 2014

## Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	15,774	91%	5,551,152
	Flaming Gorge	3,749,000	3,296,453	88%	
	Fontenelle	344,800	343,584	100%	
	Morrow Point	117,190	112,215	96%	
	Blue Mesa	829,500	658,061	79%	
	Navajo	1,696,000	1,125,065	66%	
	Lake Powell	24,322,000	12,486,264	51%	
Lower Basin	Lake Mead	26,120,000	10,034,000	38%	2,337,100
	Lake Mohave	1,809,800	1,746,900	97%	
	Lake Havasu	619,400	590,200	95%	
	<b>TOTAL</b>	<b>59,625,046</b>	<b>30,408,516</b>	<b>51%</b>	

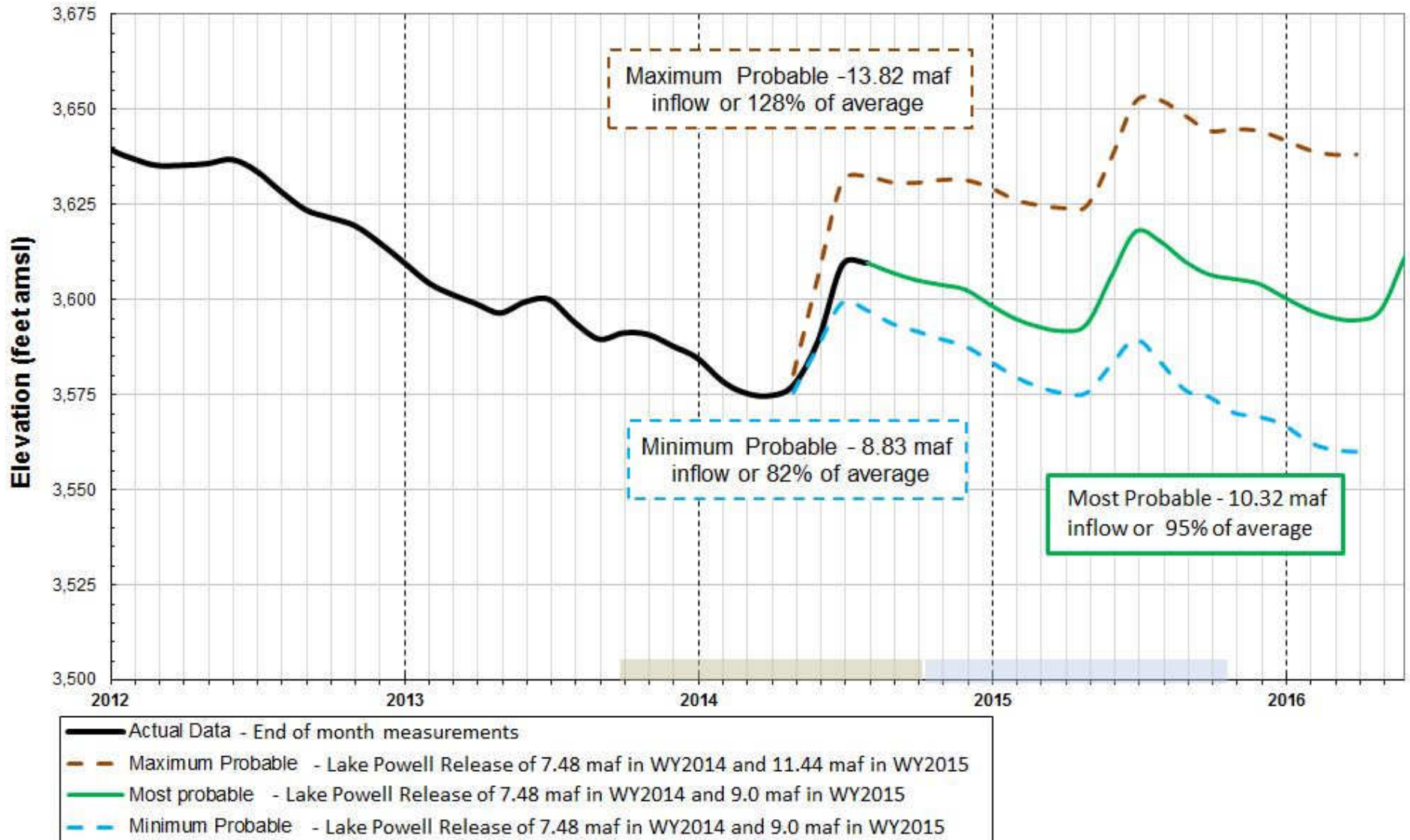
\*Data current as 8/10/2014

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

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

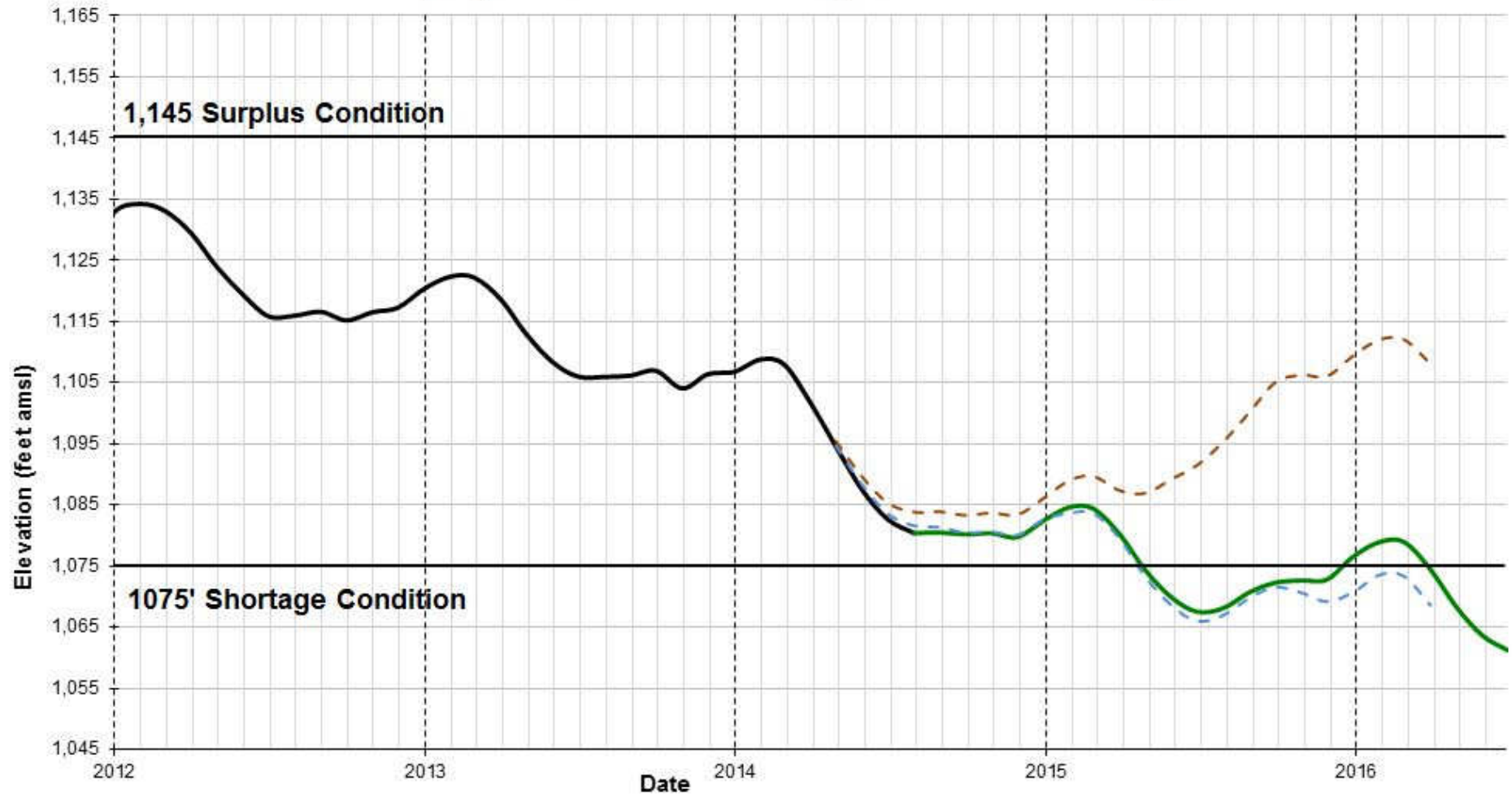
# Lake Powell End of Month Elevations

(based on July 2014 24-month Study)



# Lake Mead End of Month Elevation Projections

(Projections based on the July 2014 24-month study)



- Actual Data - End of month measurements
- - - Maximum Probable - Lake Powell Release of 7.48 maf in WY2014 and 11.44 maf in WY2015
- Most probable - Lake Powell Release of 7.48 maf in WY2014 and 9.0 maf in WY2015
- - - Minimum Probable - Lake Powell Release of 7.48 maf in WY2014 and 9.0 maf in WY2015

# Drought and Precipitation





# Precipitation – Colorado River Basin

As of August 11, 2014

## Upper Colorado Basin

WY Precip to Date

99% (27.1")

Current Basin Snowpack

NA

(Avg 1981-2010)



# U.S. Drought Monitor






## West

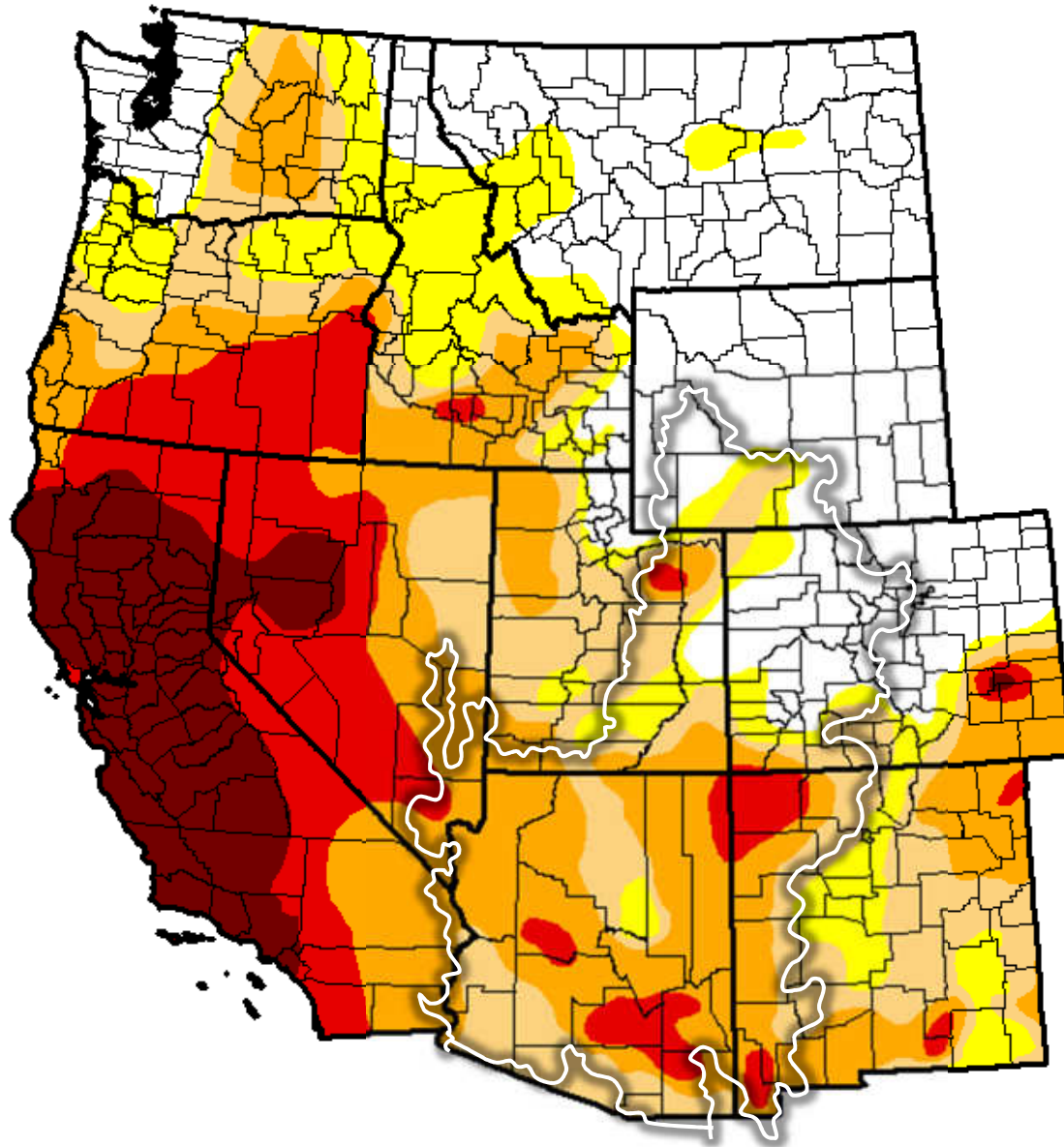
**August 5, 2014**

*(Released Thursday, Aug. 7, 2014)*

Valid 8 a.m. EDT

### Intensity:

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

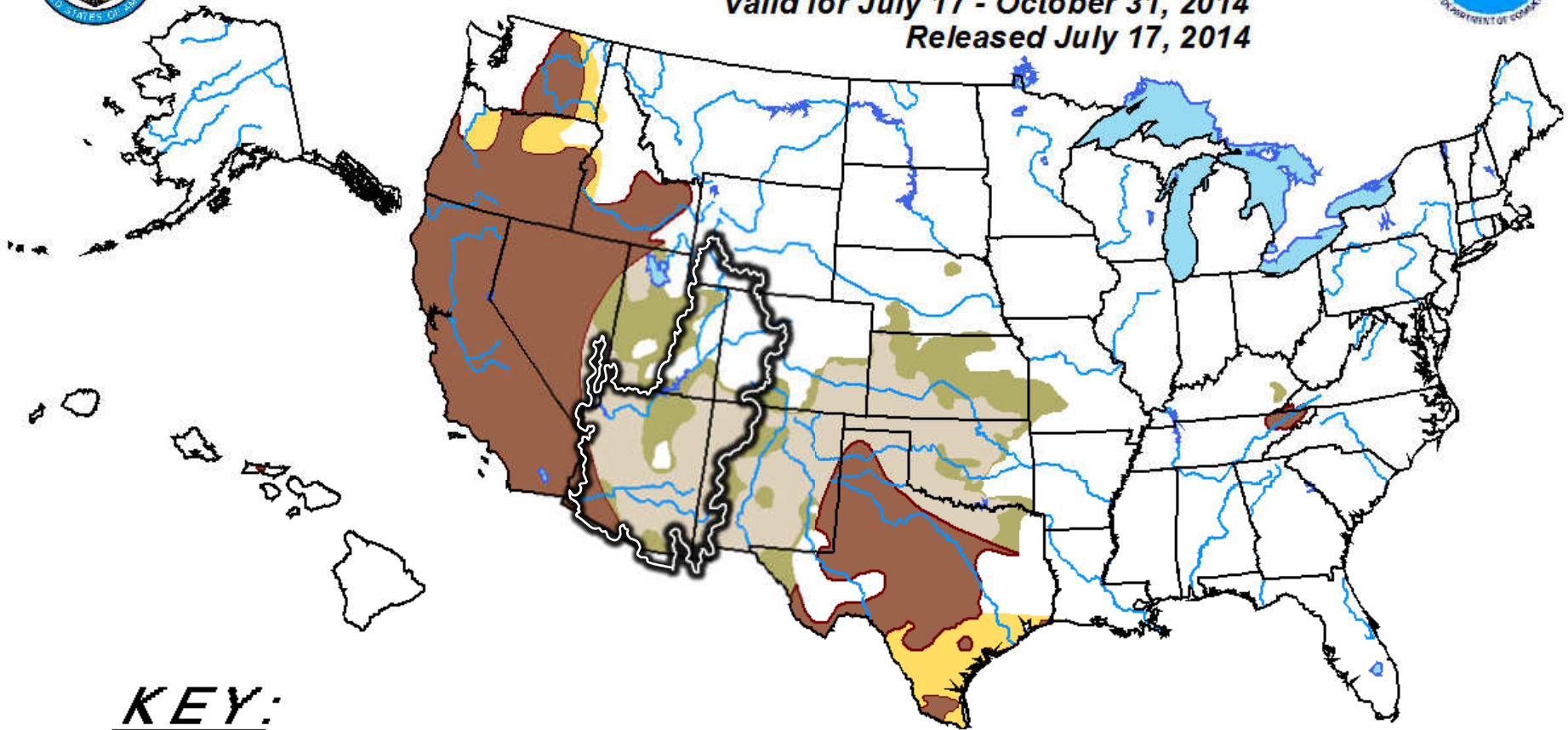








# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for July 17 - October 31, 2014  
Released July 17, 2014



### KEY:

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

Author: Adam Allgood, Climate Prediction Center, NOAA  
[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html)

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

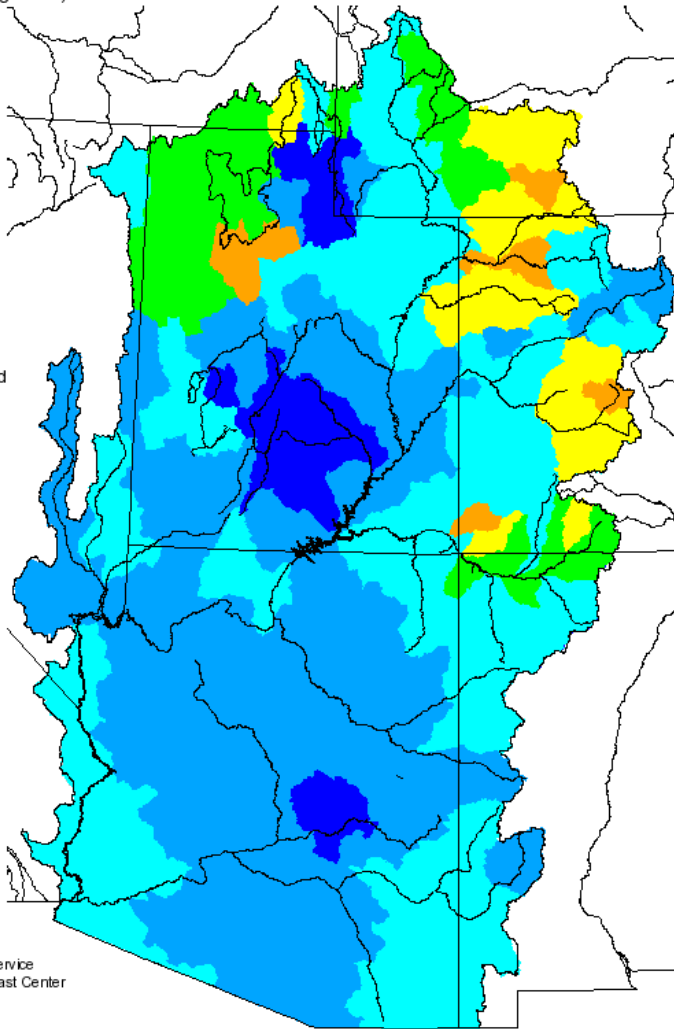
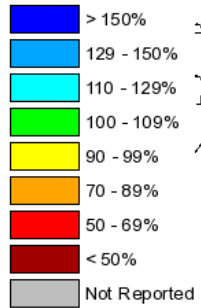
NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)

## Monthly Precipitation for July 2014

(Averaged by Hydrologic Unit)

### % Average

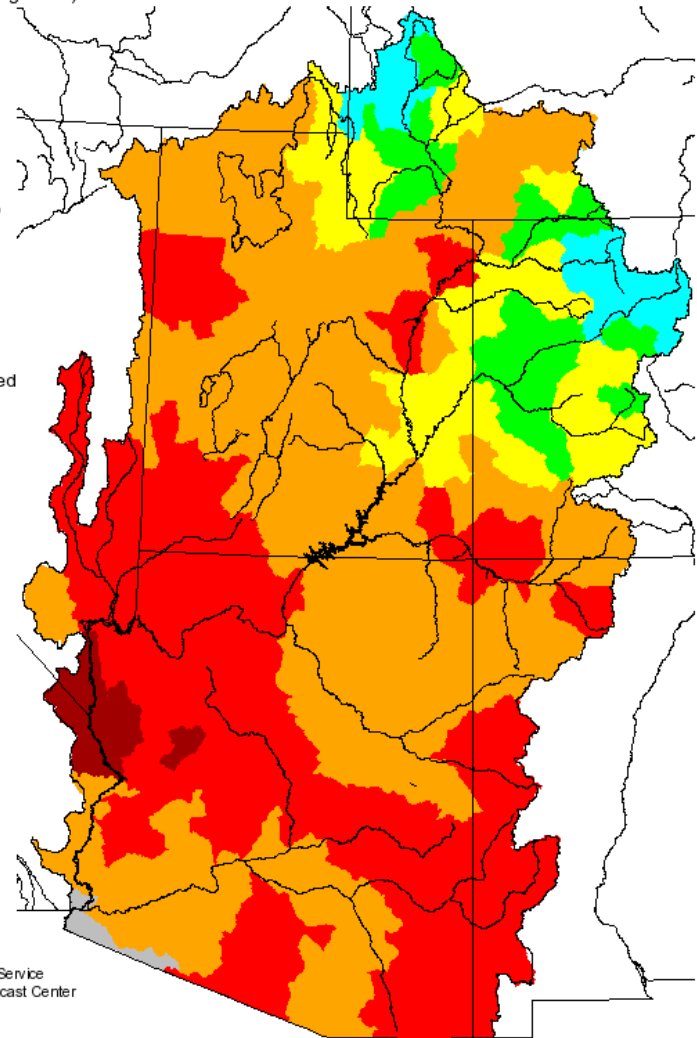
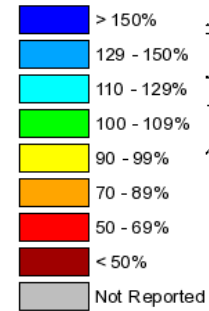


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

## Seasonal Precipitation, October 2013 - July 2014

(Averaged by Hydrologic Unit)

### % Average

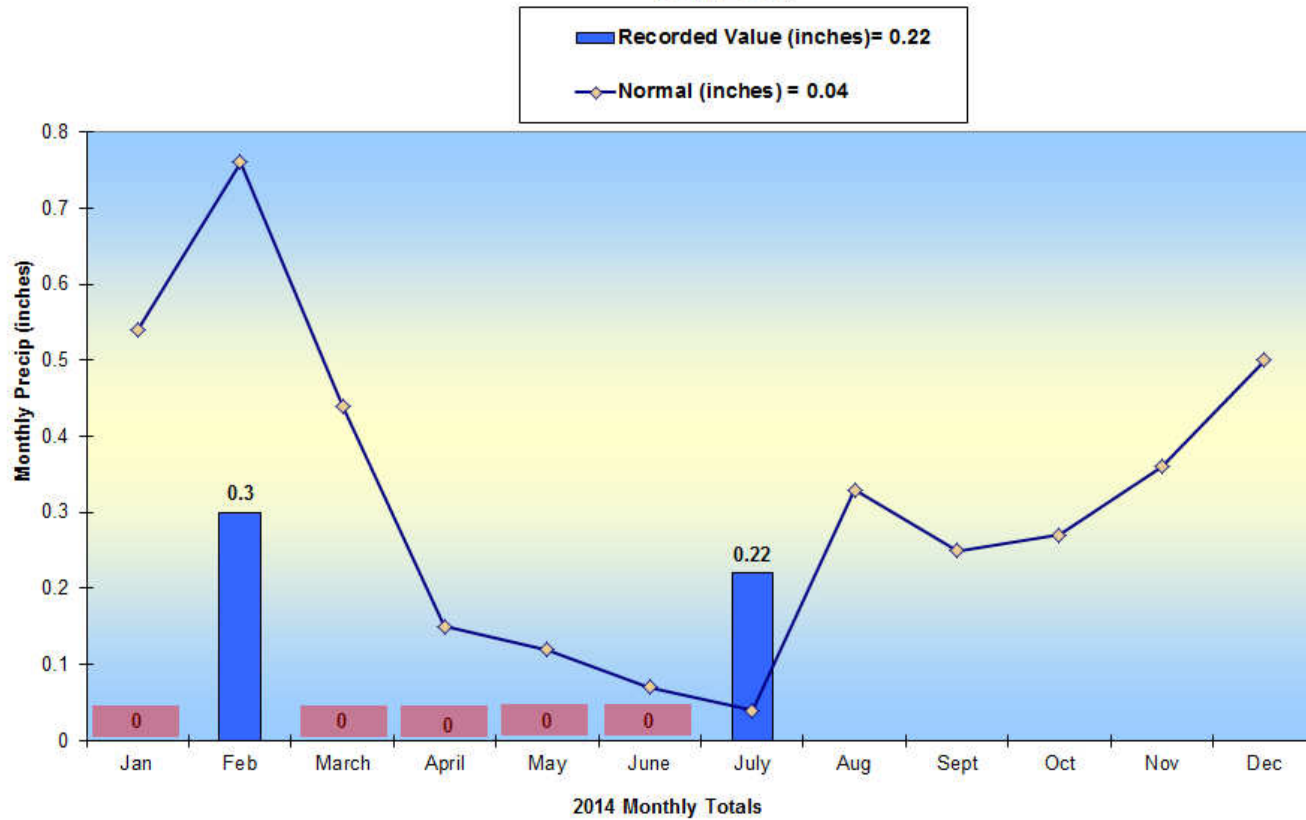


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
www.cbrfc.noaa.gov

# Monthly Precipitation, Las Vegas, NV

As of July 31, 2014

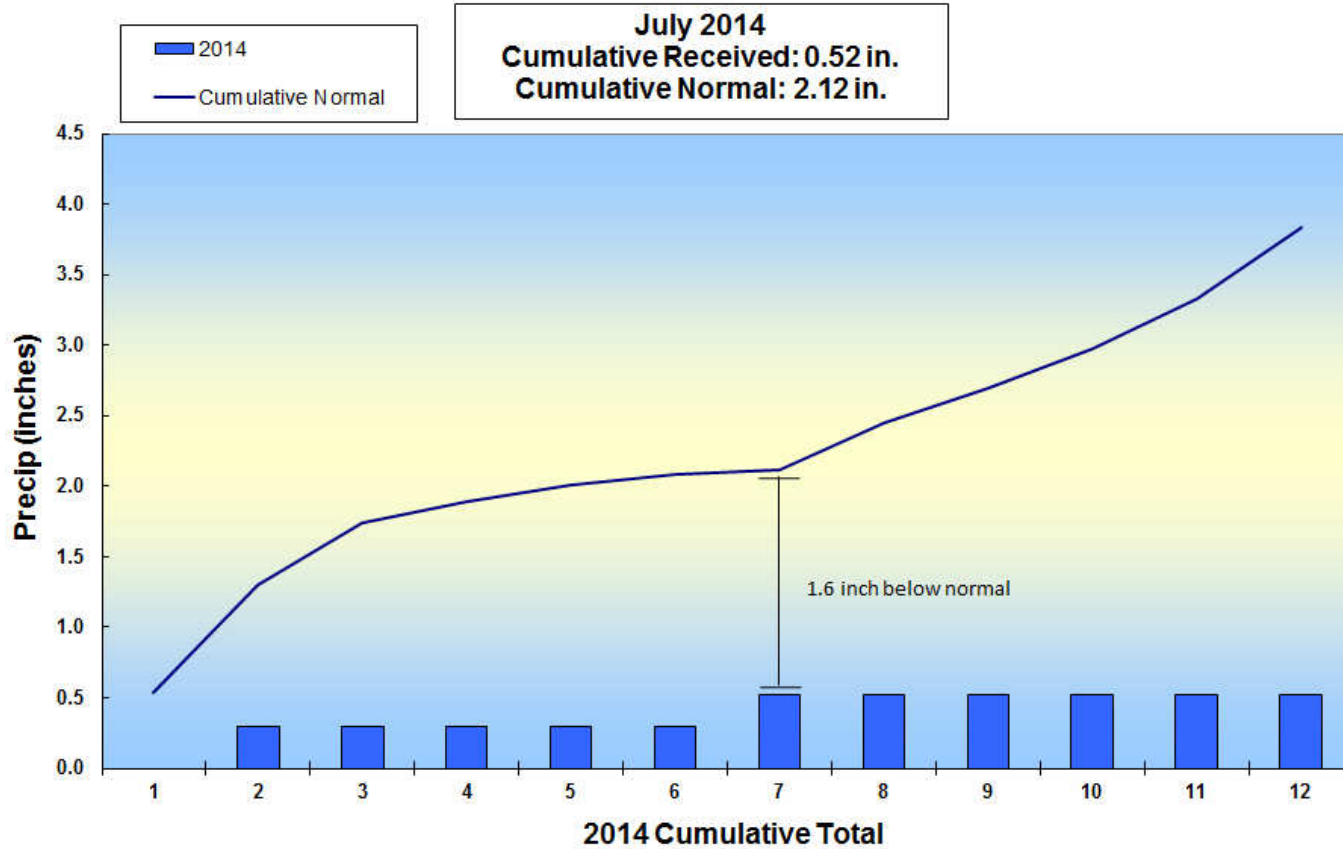
Record of Precipitation at McCarran International Airport, Las Vegas, NV  
July 2014



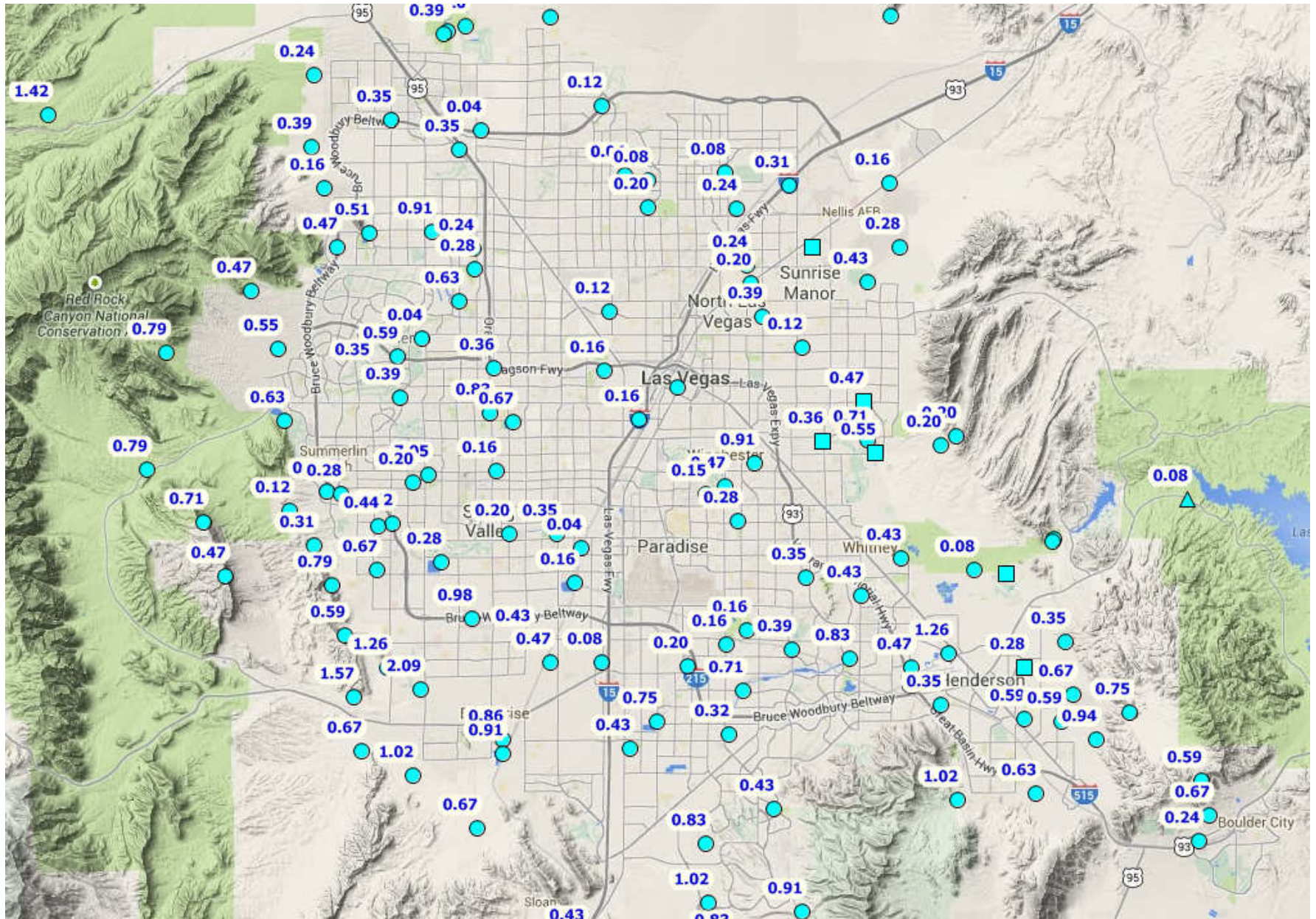
# Cumulative Precipitation, Las Vegas, NV

As of July 31, 2014

## Record of Precipitation at McCarran International Airport, Las Vegas, NV



# Clark County Regional Flood Control District Rain Gages July Totals



# Water Use in Southern Nevada





# Water Use in Southern Nevada

January – June 2014

2014*:	Consumptive Use =	109,285
	<u>CR Water Banked =</u>	<u>0</u>
		109,285
2013:	Consumptive Use =	110,193
	<u>CR Water Banked =</u>	<u>0</u>
		110,193

**Difference = - 908 af**

\*Subject to final accounting.



# Water Use Comparison

January – June 2014

<b>Water Use</b>	<b>2013</b> Acre Feet	<b>2014</b> Acre Feet	<b>Difference</b>	<b>% Change</b>
Las Vegas Wash Gauged Flow	101,012	104,342	3,330	3.3%
Diversions	213,096	215,699	2,603	1.2%
Return Flow Credit	102,903	106,413	3,510	3.4%
Consumptive Use	110,193	109,285	-908	-0.8%



# Colorado River Commission of Nevada

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