Colorado River Commission of Nevada

Natural Resources Group
Hydrologic Update
October 14, 2014

Unregulated Inflow

Unregulated Inflow Into Lake Powell

As of October 6, 2014

	MAF*	% Avg**
• WY 2014 (Preliminary Observed):	10.38	96%
• April-July 2014 (Observed):	6.92	97%
• September (observed):	0.51	125%
• October (forecasted):	0.750	146%

***MAF=Million Acre-Feet**

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

Storage Conditions

As of October 6, 2014

		Percent of Capacity	Δ from last year
Lake Mead elev.	1081.66 ft	39%	↓ 24.19 ft
Lake Powell elev.	3,606.04 ft	51%	↑ 12.88 ft
Total System Storage (10/2014)	30.09 maf	50%	↑ 0.22 maf
Total System Storage (10/2013)	29.87 maf	50%	

Reservoir Storage

As of October 9, 2014

Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	15,791	91%	5,421,616
	Flaming Gorge	3,749,000	3,287,311	88%	
	Fontenelle	344,800	321,587	93%	
	Morrow Point	117,190	111,851	95%	
	Blue Mesa	829,500	593,300	72%	
	Navajo	1,696,000	1,091,776	64%	
	Lake Powell	24,322,000	12,341,742	51%	
Lower Basin	Lake Mead	26,120,000	10,130,000	39%	
	Lake Mohave	1,809,800	1,618,200	89%	2,193,700
	Lake Havasu	619,400	575,500	93%	
	TOTAL	59,625,046	30,087,058	50%	

**Data current as 10/9/2014*

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

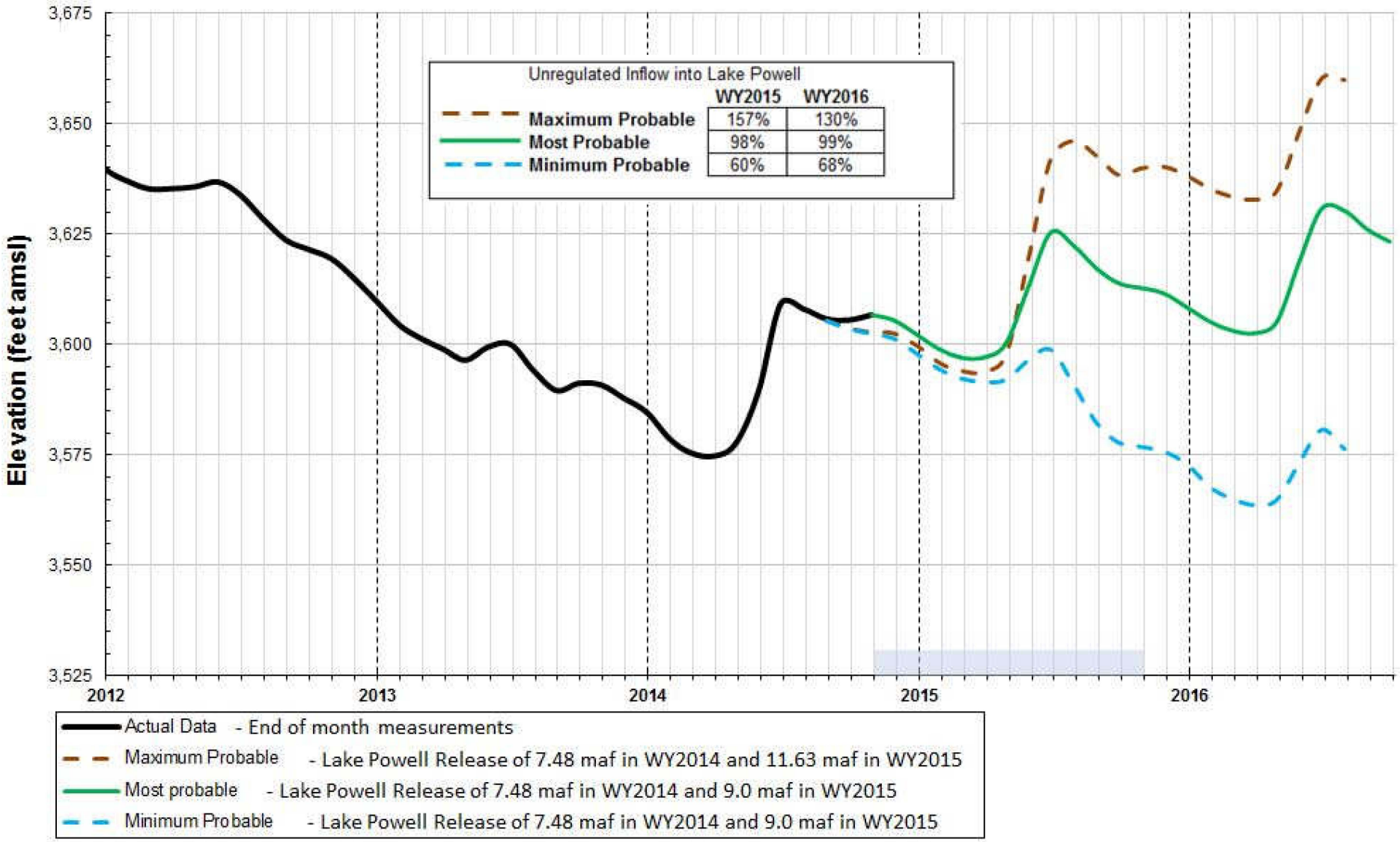
http://www.usbr.gov/uc/water/rsvrs/ops/r40day.html

Lower Basin Side Inflows

Month	5 year average (KAF)	Observed Inflow (KAF)	Percent	Difference from 5 year average
Oct-13	52	38	73%	-14
Nov-13	52	101	194%	49
Dec-13	95	43	45%	-52
Jan-14	75	45	60%	-30
Feb-14	78	76	97%	-2
Mar-14	68	29	43%	-39
Apr-14	80	17	21%	-63
May-14	60	13	22%	-47
Jun-14	23	12	52%	-11
Jul-14	64	55	86%	-9
Aug-14	116	112	97%	-4
Sep-14	97	138	142%	41
Oct-14	52			
Nov-14	52			
Dec-14	95			
WY 2014 totals	860	776	90%	-84
WY 2015 totals	860	793	92%	-67

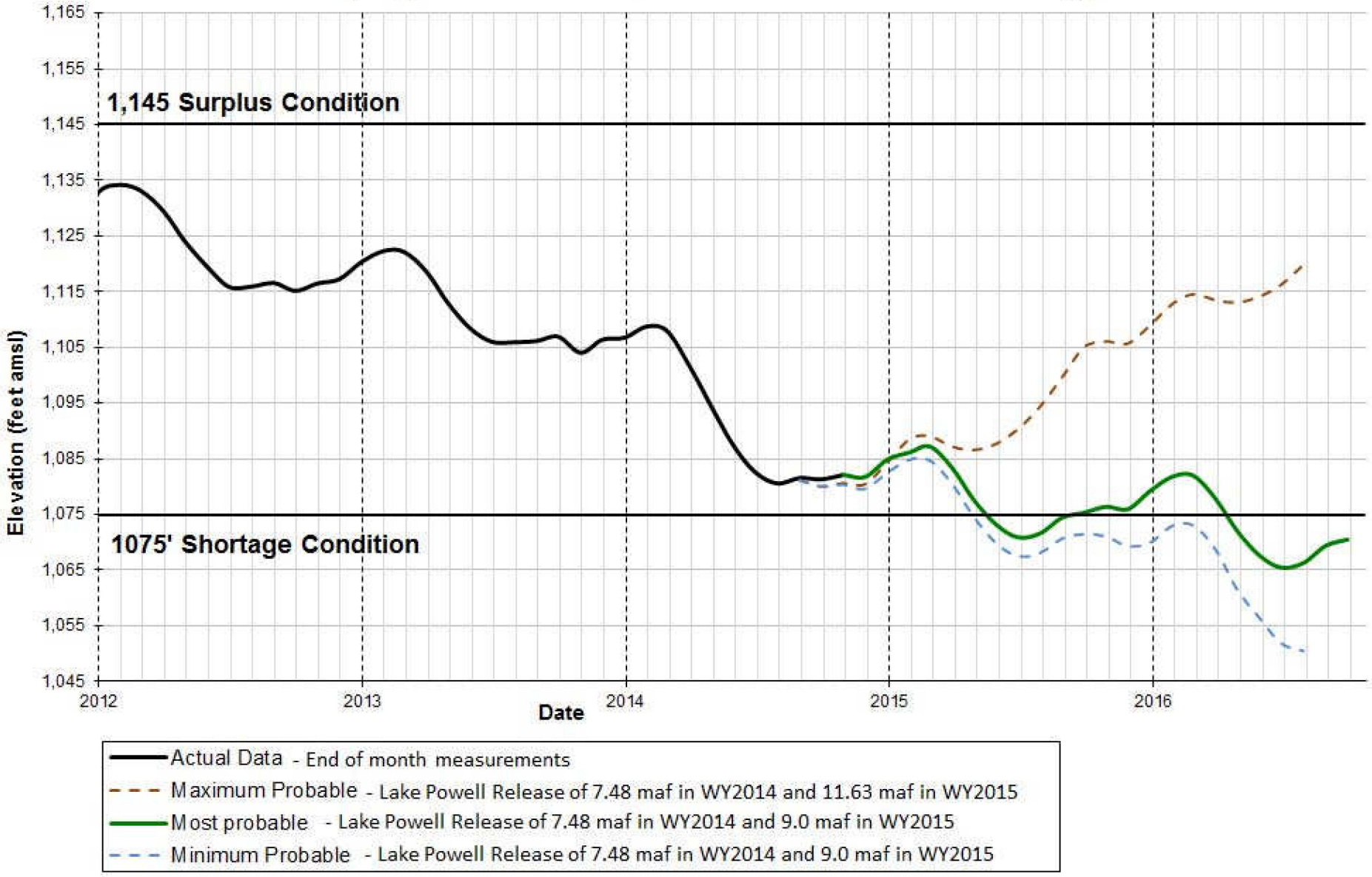
Lake Powell End of Month Elevations

(based on October 2014 24-month Study)



Lake Mead End of Month Elevation Projections

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



Drought and Precipitation

Precipitation – Colorado River Basin

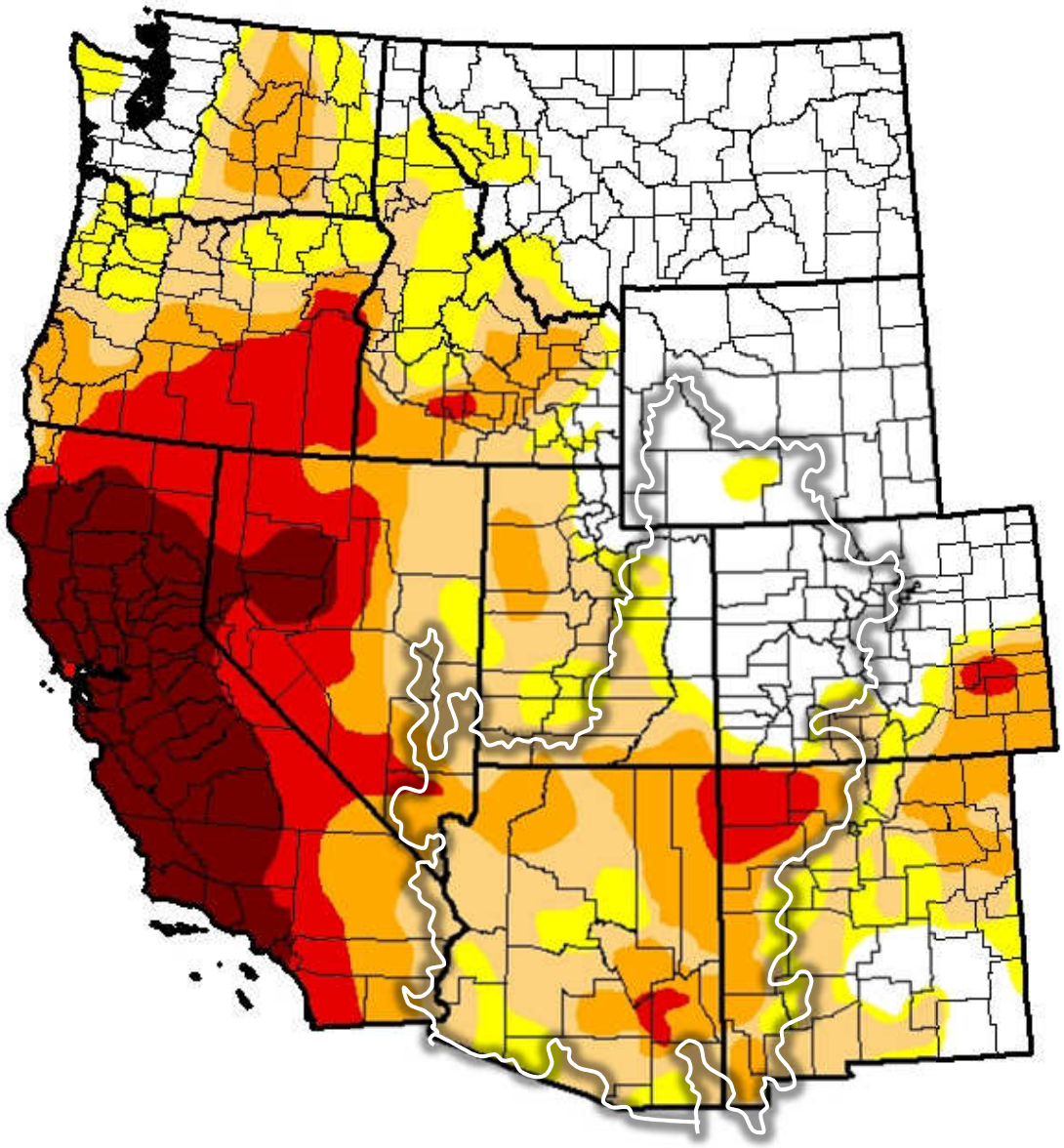
As of October 6, 2014

	Upper Colorado Basin
WY 2015 Precip to Date	69% (0.3”)
Current Basin Snowpack	NA

(Avg 1981-2010)

U.S. Drought Monitor

West



October 7, 2014

(Released Thursday, Oct. 9, 2014)

Valid 8 a.m. EDT

Intensity:

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

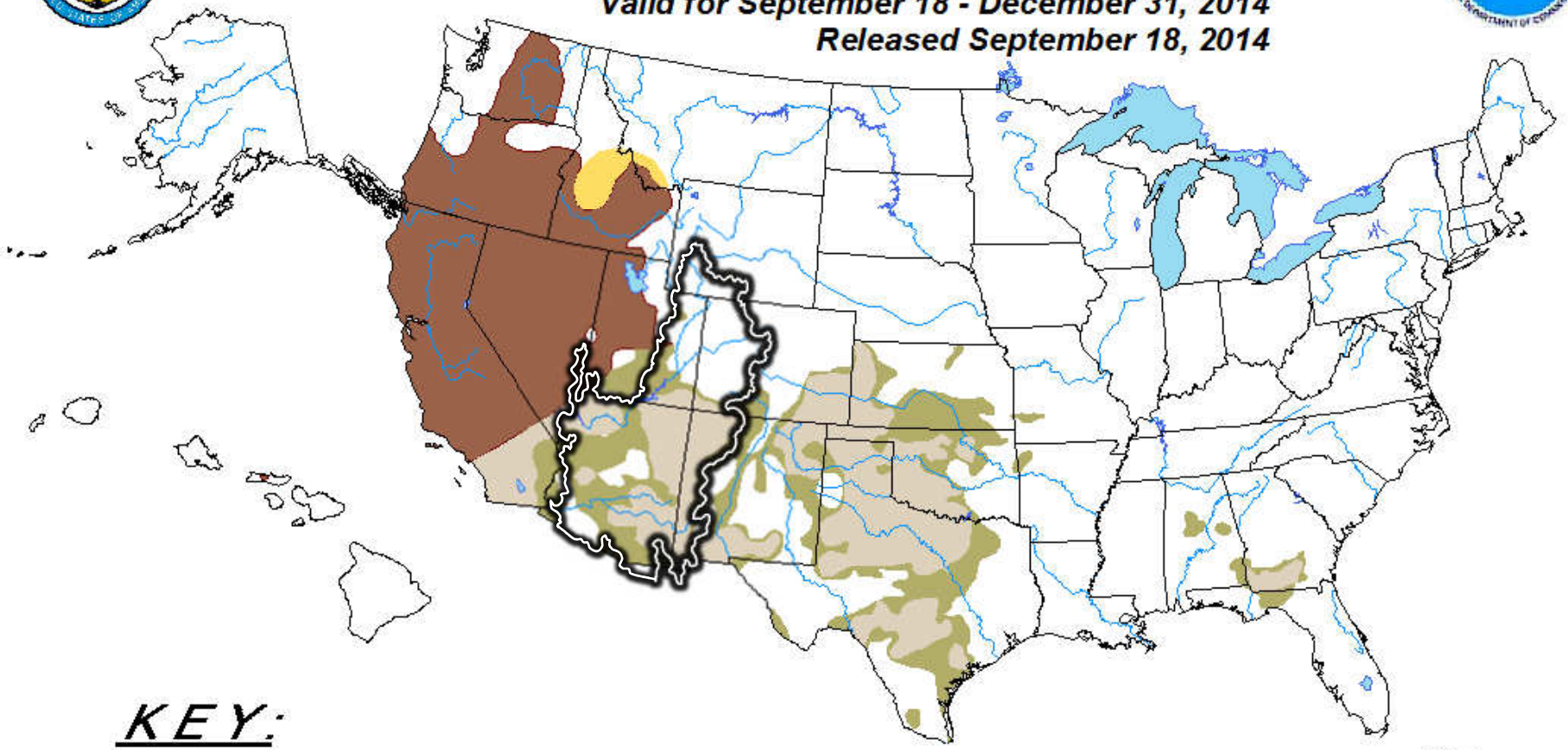
http://droughtmonitor.unl.edu/Home/RegionalDroughtMonitor.aspx?west

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for September 18 - December 31, 2014

Released September 18, 2014



KEY:

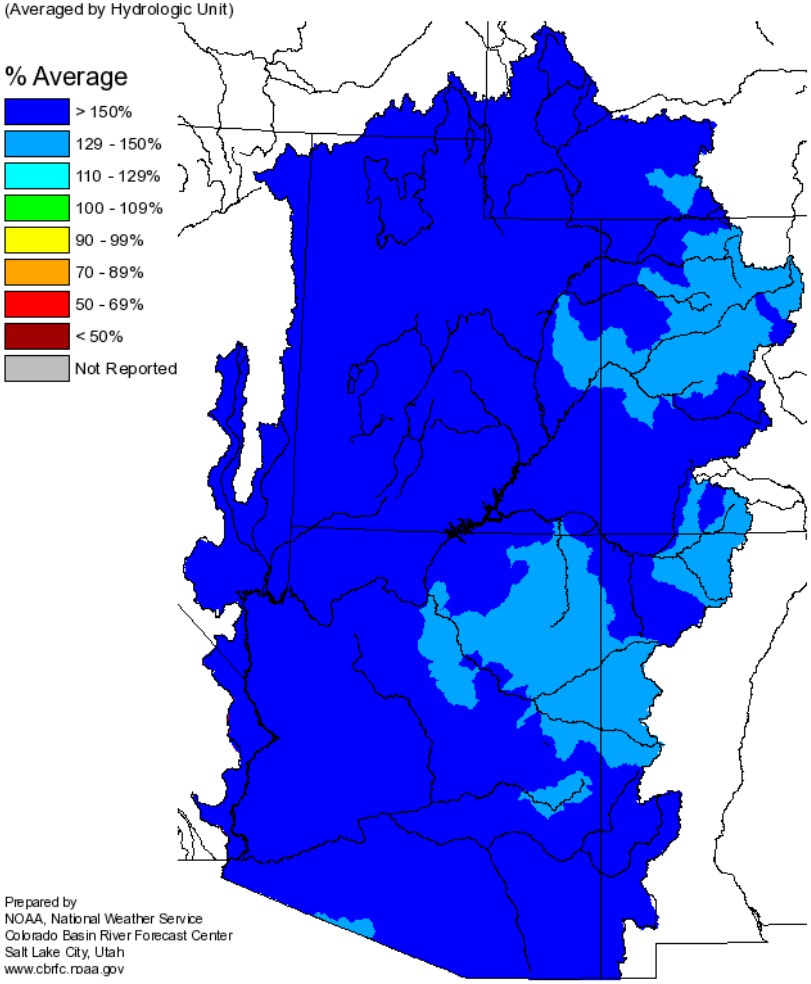
- **Drought persists or intensifies**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

Author: Anthony Artusa, Climate Prediction Center, NOAA
http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.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 September 2014

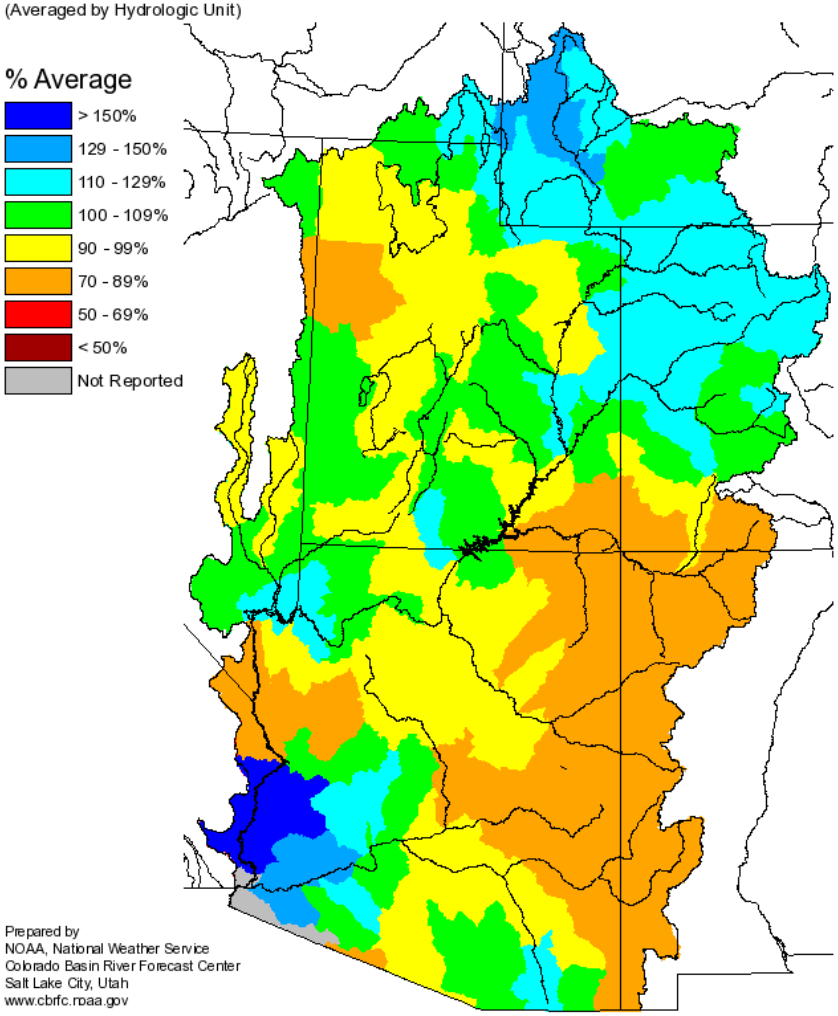
(Averaged by Hydrologic Unit)



http://www.cbrfc.noaa.gov/product/mapsum/map/cbrfcM201409.png

Seasonal Precipitation, October 2013 - September 2014

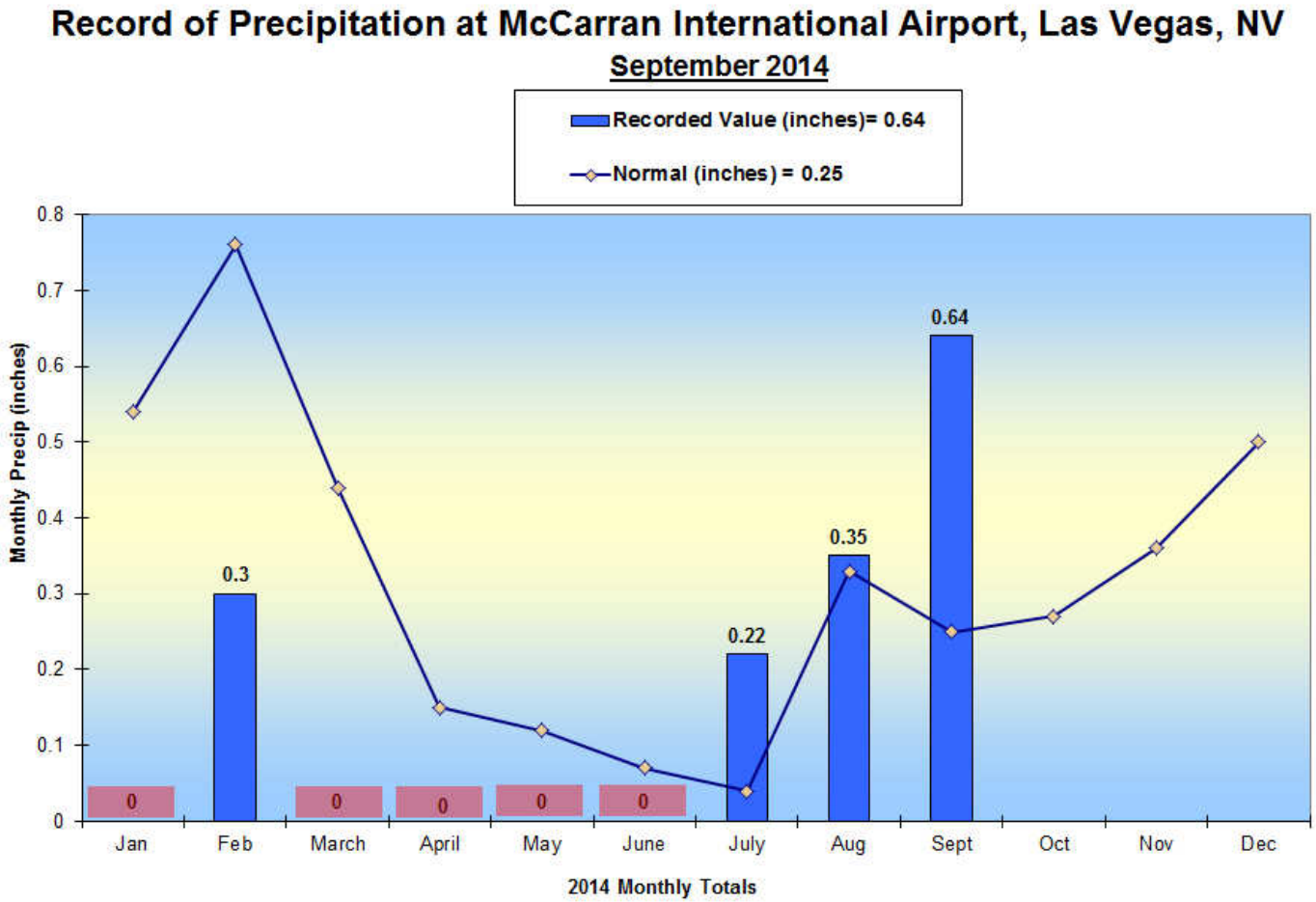
(Averaged by Hydrologic Unit)



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

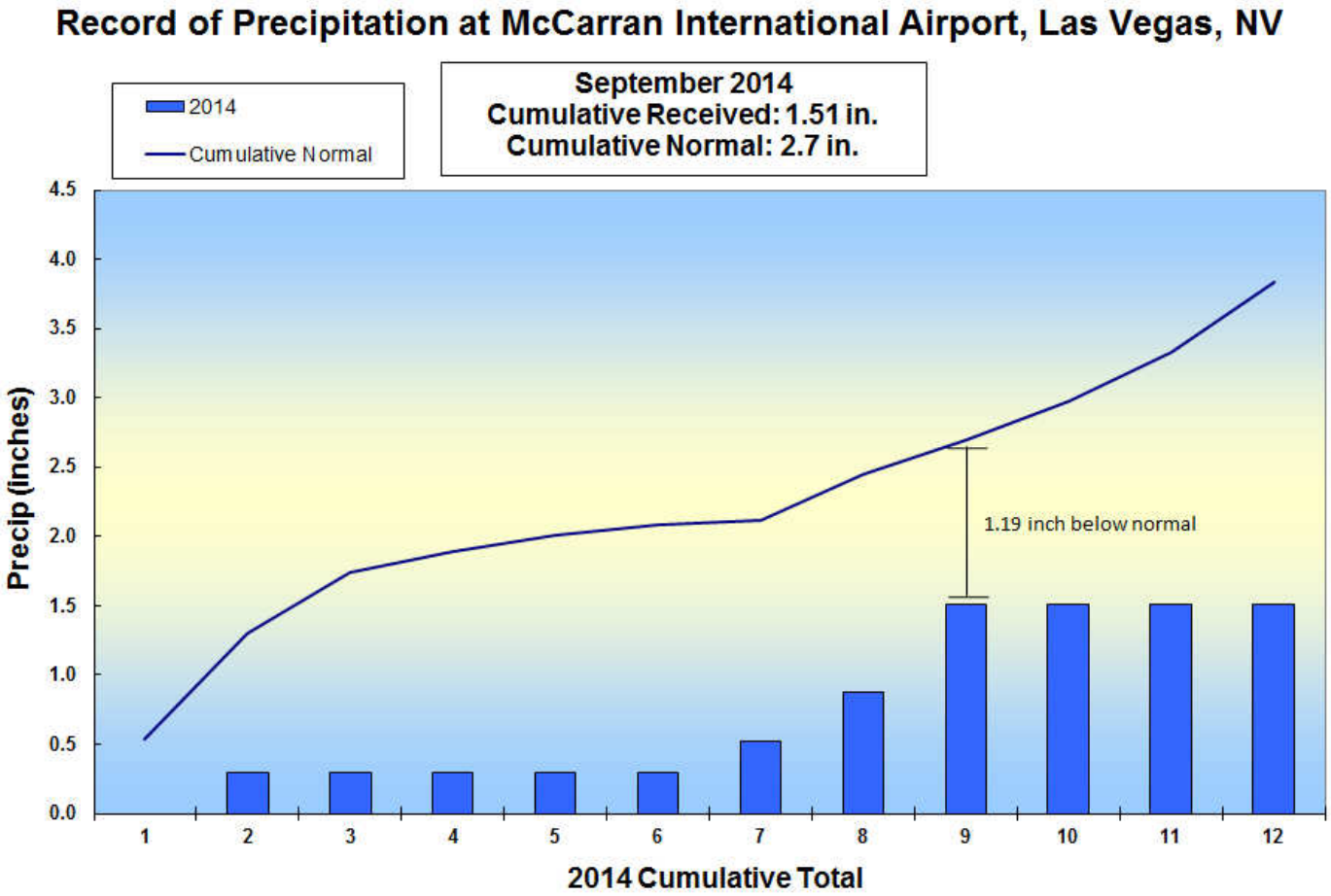
Monthly Precipitation, Las Vegas, NV

As of September 30, 2014



Cumulative Precipitation, Las Vegas, NV

As of September 30, 2014



Water Use in Southern Nevada

Water Use in Southern Nevada

January – August 2014

2014*:	Consumptive Use =	160,825
	CR Water Banked =	0
		160,825
2013:	Consumptive Use =	166,758
	CR Water Banked =	0
		166,758

Difference = - 5,933 af

*Subject to final accounting.

RFC Calculations

Consumptive Use = Diversions - Return Flow Credit

Year	Diversion	Returns	Un-measured Returns	Consumptive Use	Not included in RFC returns
2013	433,559	208,309	1,687	223,563	(5,076)
2012	439,357	200,654	1,542	237,161	(10,293)
2011	438,435	214,025	1,563	222,847	(1,871)
2010	451,792	208,958	1,397	241,437	(5,145)
2009	457,963	207,747	1,603	248,613	(2,968)
2008	479,974	208,463	1,857	269,654	3,711
2007	517,165	215,442	1,411	300,312	3,710

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