

# Colorado River Commission of Nevada

## **Natural Resources Group Hydrologic Update April 8th, 2014**



# Unregulated Inflow



# Unregulated Inflow Into Lake Powell

As of April 7, 2014

	MAF*	% Avg**
• WY 2014 (forecasted):	11.11	103%
• April-July 2014 (forecasted):	7.85	110%
• March (observed):	0.51	76%
• April (forecasted):	0.96	90%

**\*MAF=Million Acre-Feet**

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



# Storage Conditions

As of April 7, 2014

Percent of  
Capacity

Δ from last year

Lake Mead elev.	1,100.38 ft	45%	↓ 7.07 ft
Lake Powell elev.	3,574.50 ft	39%	↓ 23.79 ft
Total System Storage (4/2014)	28.05 maf	47%	↓ 3.68 maf
Total System Storage (4/2013)	31.73 maf	53%	



# Reservoir Storage

As of April 4, 2014

## Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	13,842	80%	4,571,393
	Flaming Gorge	3,749,000	2,923,842	78%	
	Fontenelle	344,800	118,539	34%	
	Morrow Point	117,190	106,130	91%	
	Blue Mesa	829,500	410,702	50%	
	Navajo	1,696,000	998,338	59%	
	Lake Powell	24,322,000	9,483,164	39%	
Lower Basin	Lake Mead	26,120,000	11,830,000	45%	2,224,000
	Lake Mohave	1,809,800	1,647,500	91%	
	Lake Havasu	619,400	576,500	93%	
	<b>TOTAL</b>	<b>59,625,046</b>	<b>28,108,557</b>	<b>47%</b>	

\*Data current as 4/4/2014

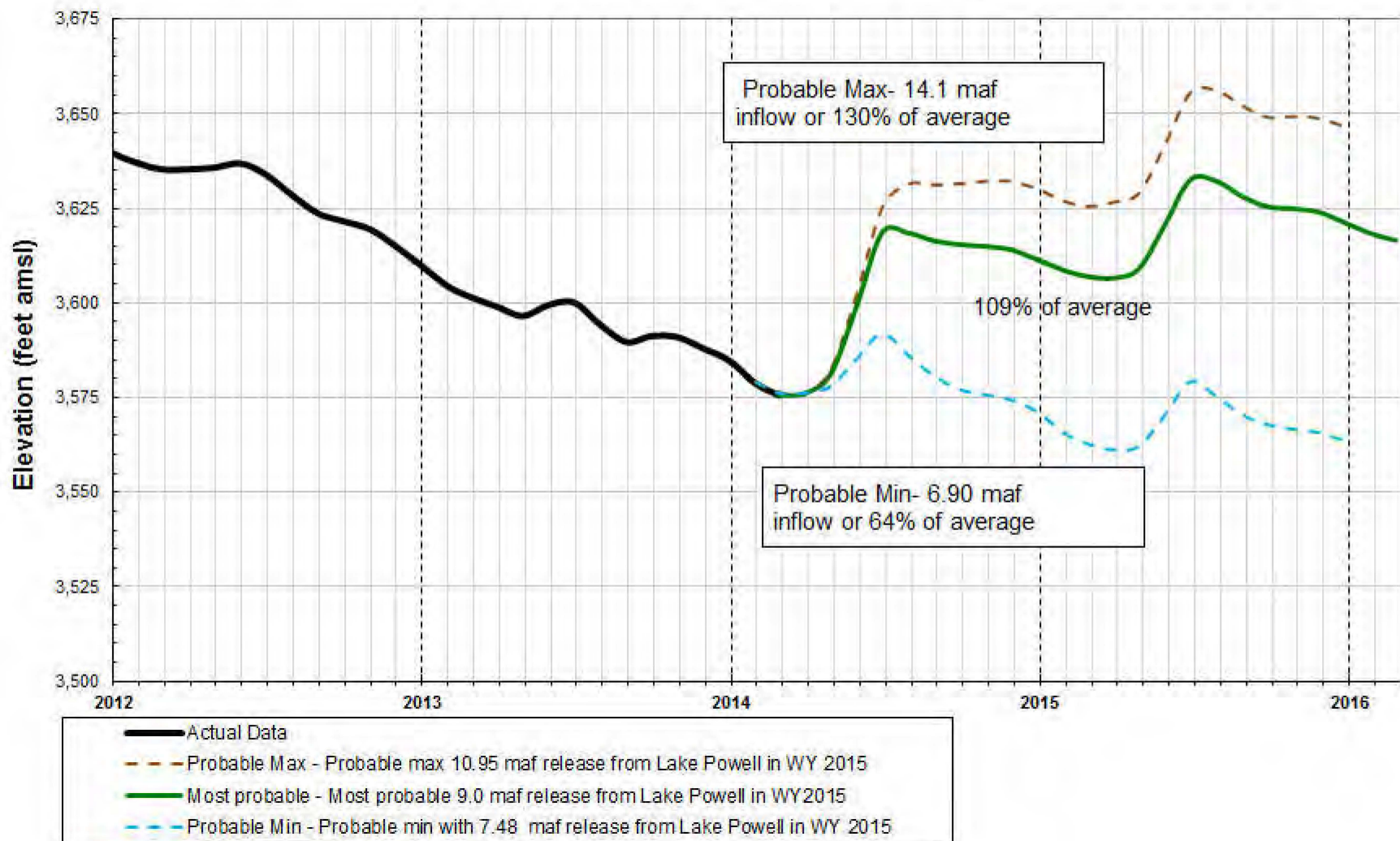
<http://www.usbr.gov/lc/region/g4000/hourly/levels.html>

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

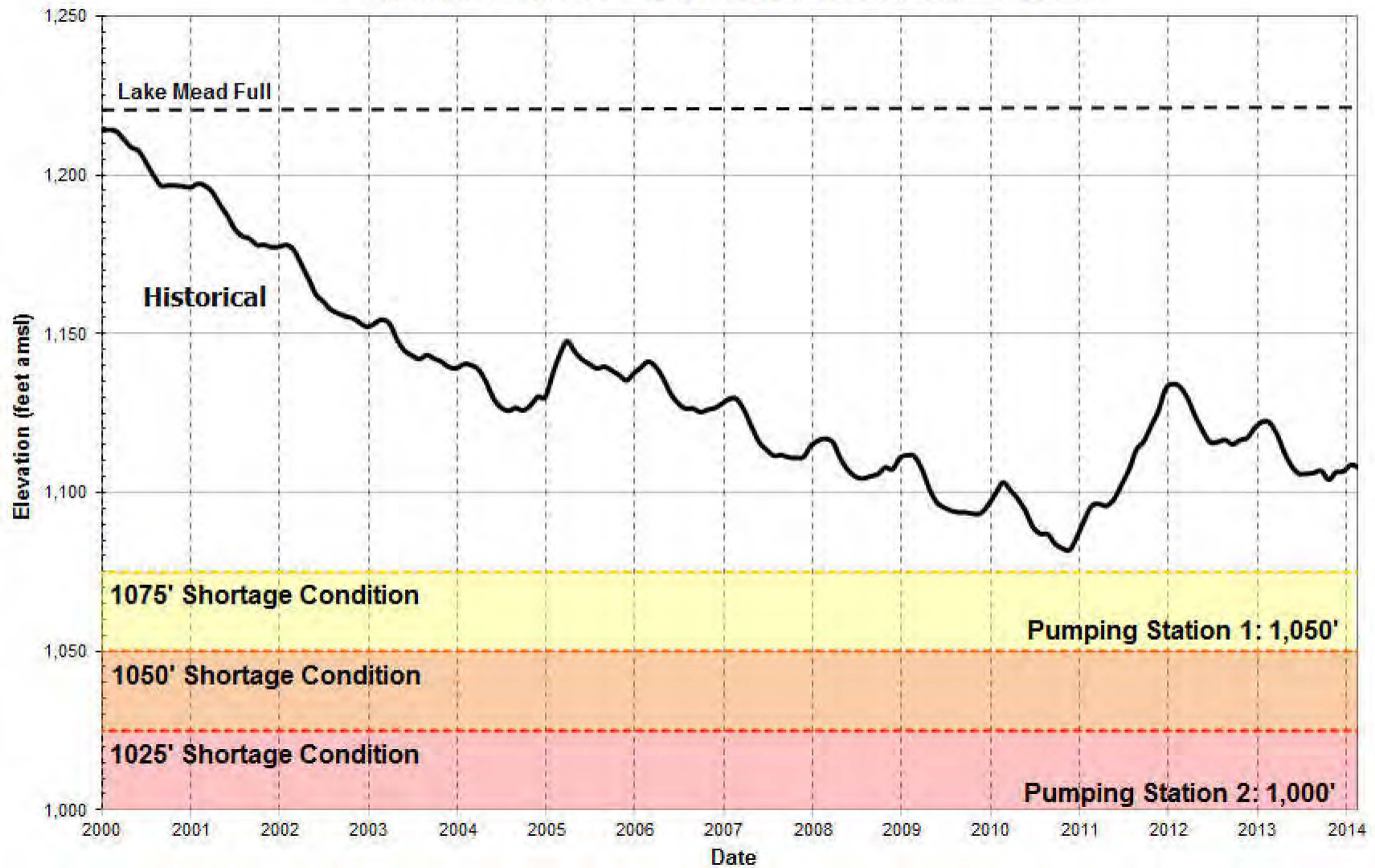


# Lake Powell End of Month Elevations

(based on March 2014 24-month Study)

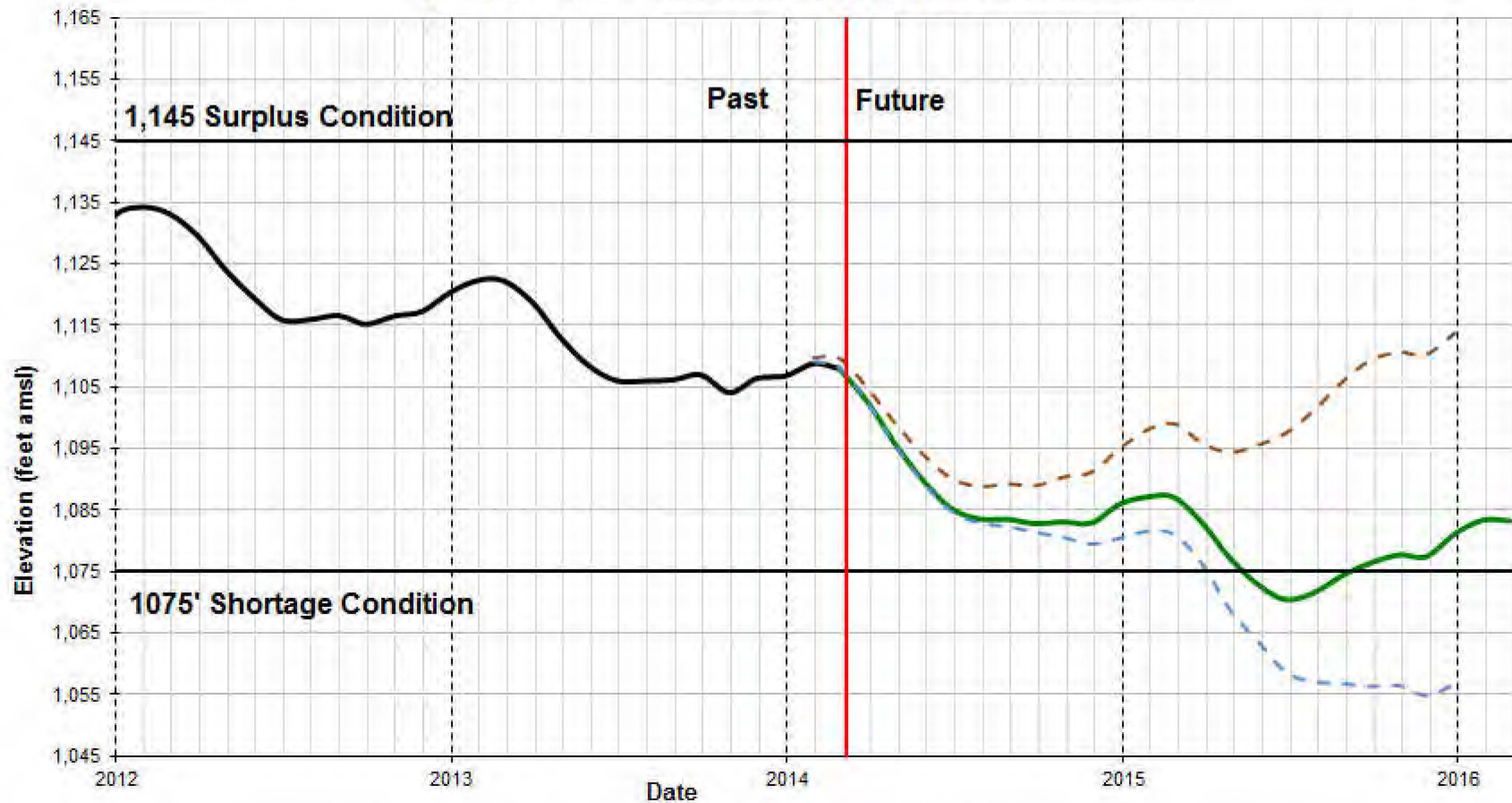


# Lake Mead Elevation 2000-2014



# Lake Mead End of Month Elevation Projections

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



— Actual Data

- - Probable Max - Probable max 10.95 maf release from Lake Powell in WY 2015

— Most probable - Most probable 9.0 maf release from Lake Powell in WY 2015

- - Probable Min - Probable Min with 7.48 maf release from Lake Powell in WY 2015



# Drought and Precipitation



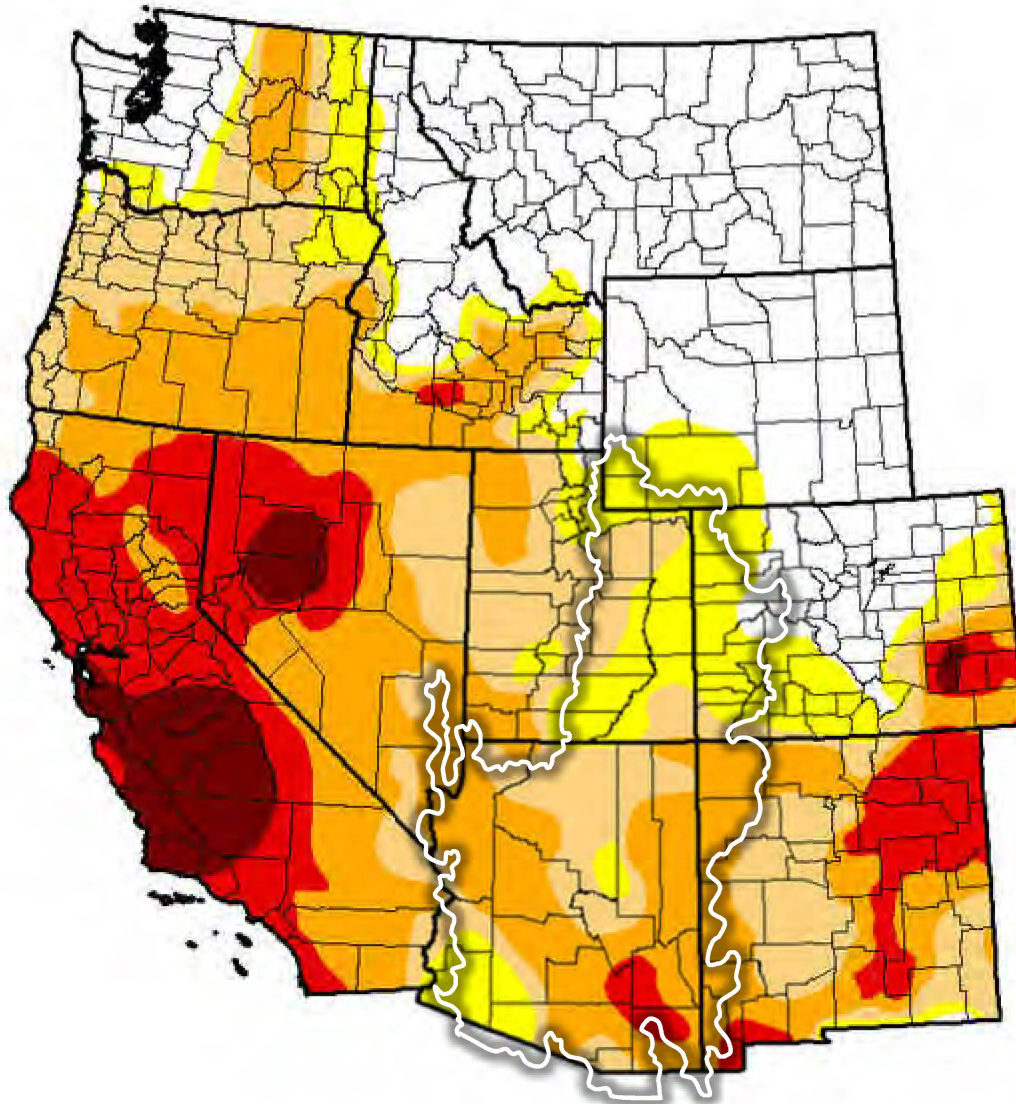
# ***U.S. Drought Monitor***

**West**

**April 1, 2014**

*(Released Thursday April 3, 2014)*

**Valid 7 a.m. Eastern**



## **Intensity:**

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



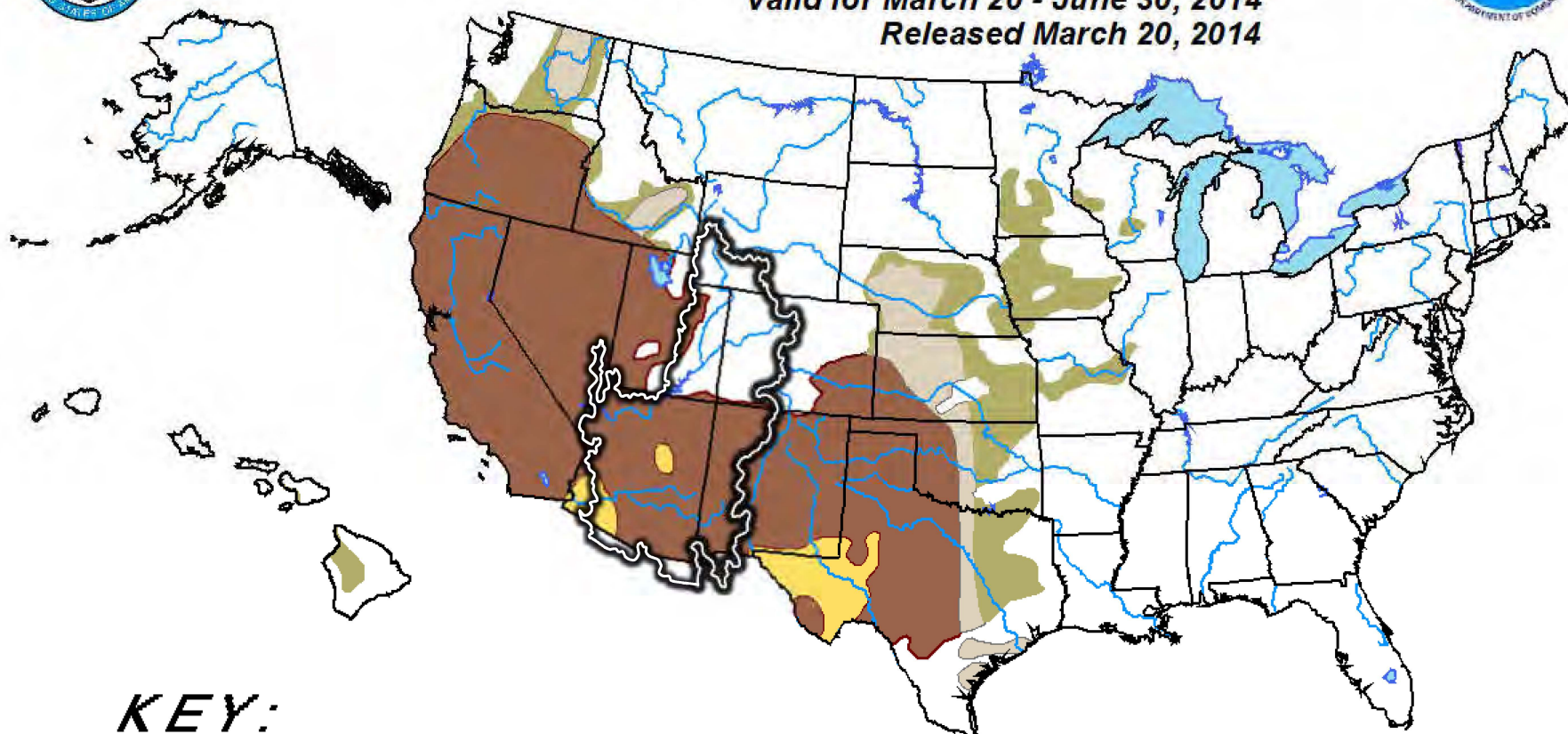


# U.S. Seasonal Drought Outlook





Drought Tendency During the Valid Period

Valid for March 20 - June 30, 2014

Released March 20, 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/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)

# Precipitation – Colorado River Basin

As of April 7, 2014

## Upper Colorado Basin

WY Precip to Date

101% (18.6")

Current Basin Snowpack

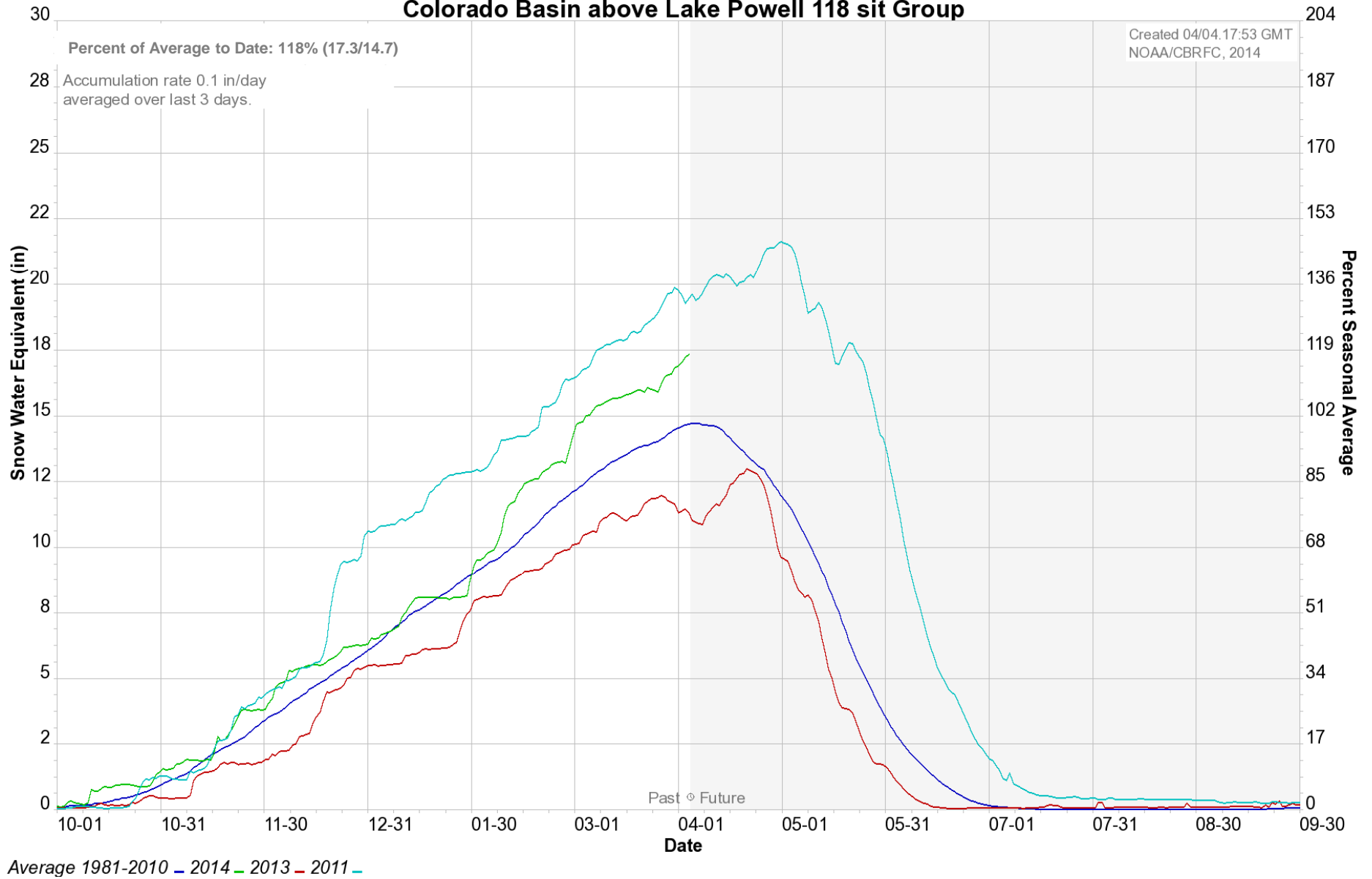
113% (17.9")

(Avg 1981-2010)





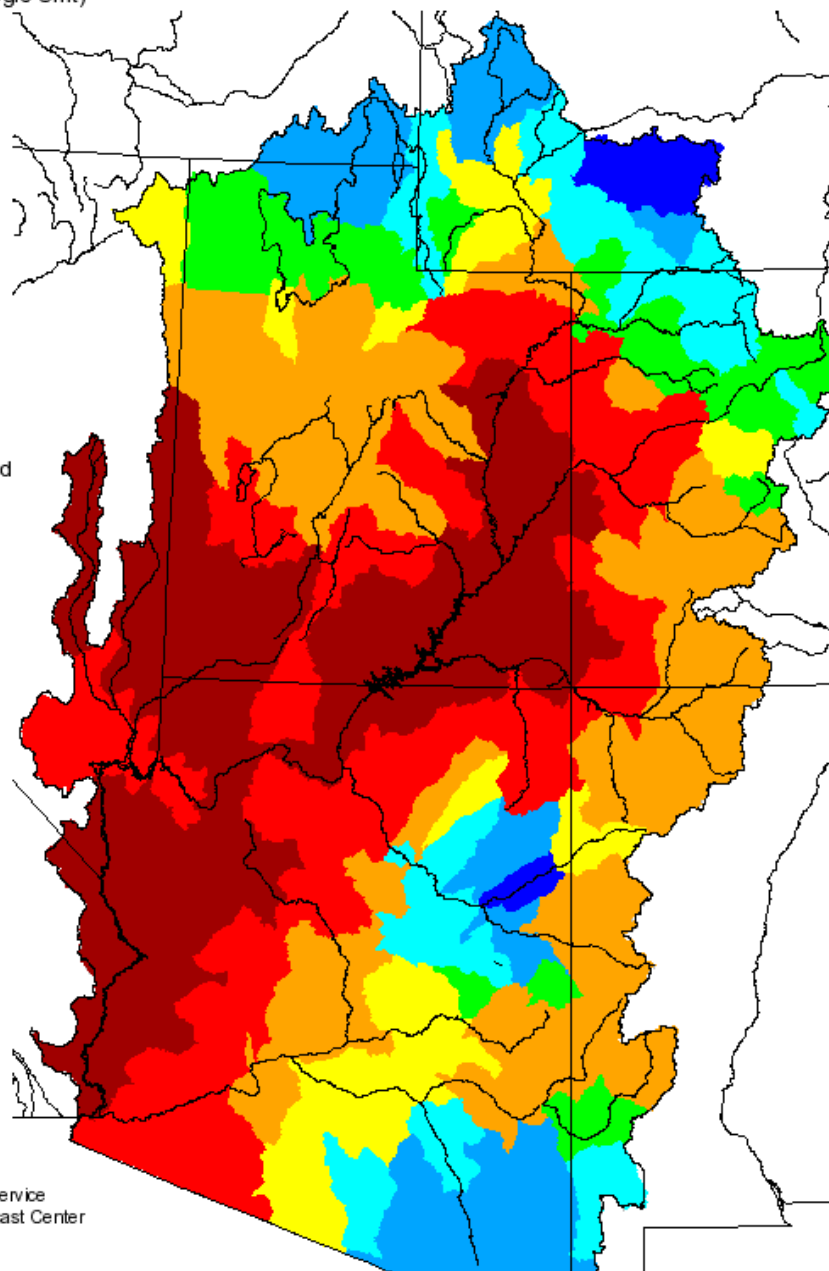
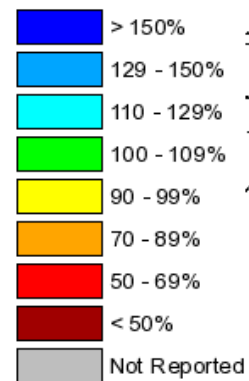
# Colorado Basin River Forecast Center Colorado Basin above Lake Powell 118 sit Group



# Monthly Precipitation for March 2014

(Averaged by Hydrologic Unit)

## % Average



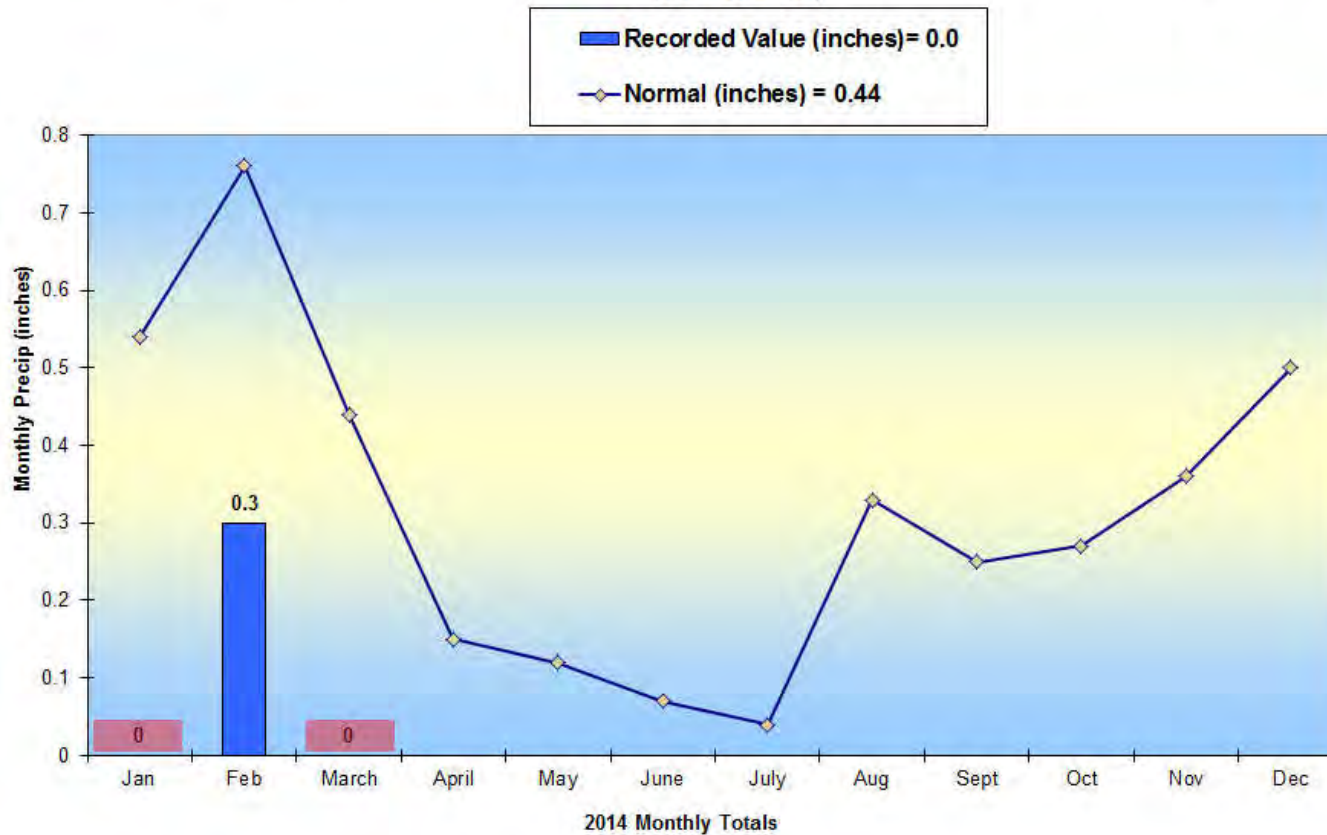
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

# Monthly Precipitation, Las Vegas, NV

As of March 31, 2014

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

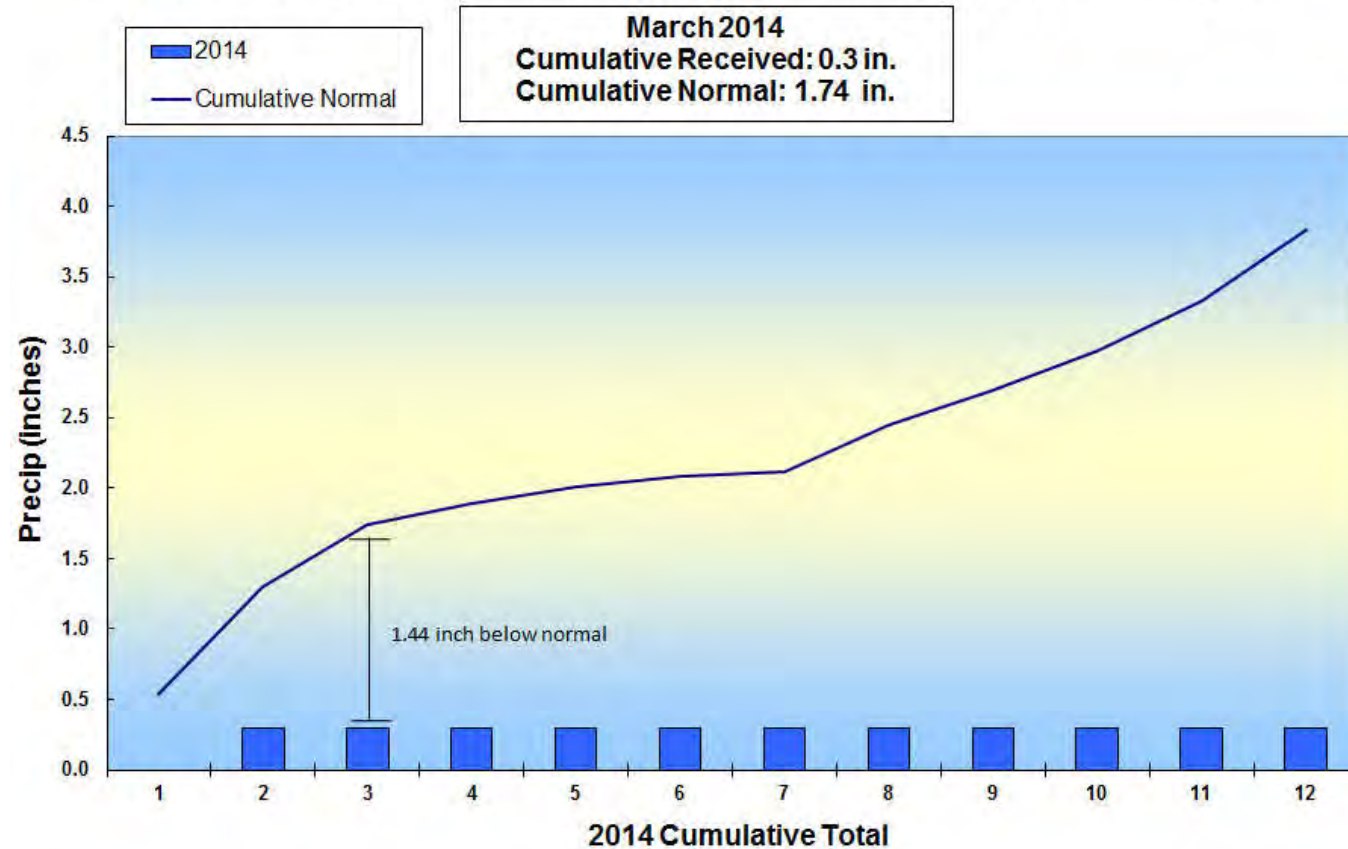
March 2014



# Cumulative Precipitation, Las Vegas, NV

As of March 31, 2014

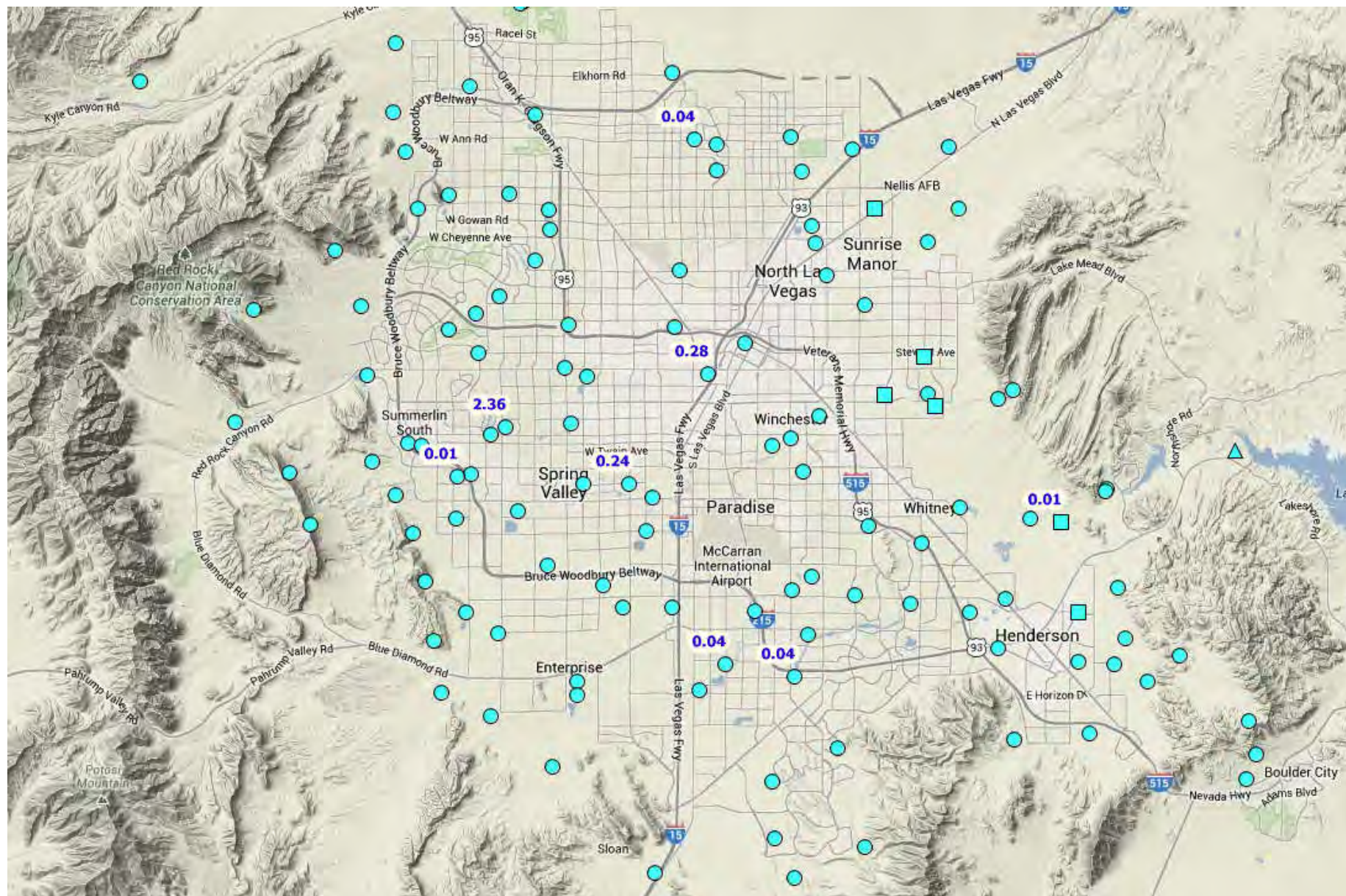
## Record of Precipitation at McCarran International Airport, Las Vegas, NV





# Clark County Regional Flood Control District Rain Gages

March 2014 Totals



# Water Use in Southern Nevada





# Water Use in Southern Nevada

January - February 2014

2014\*:      Consumptive Use = 16,156

CR Water Banked = 0

16,156

2013\*:      Consumptive Use = 17,435

CR Water Banked = 0

17,435

**Difference = - 1,279 af**

\*Subject to final accounting.



# Water Use Comparison

January – February 2014

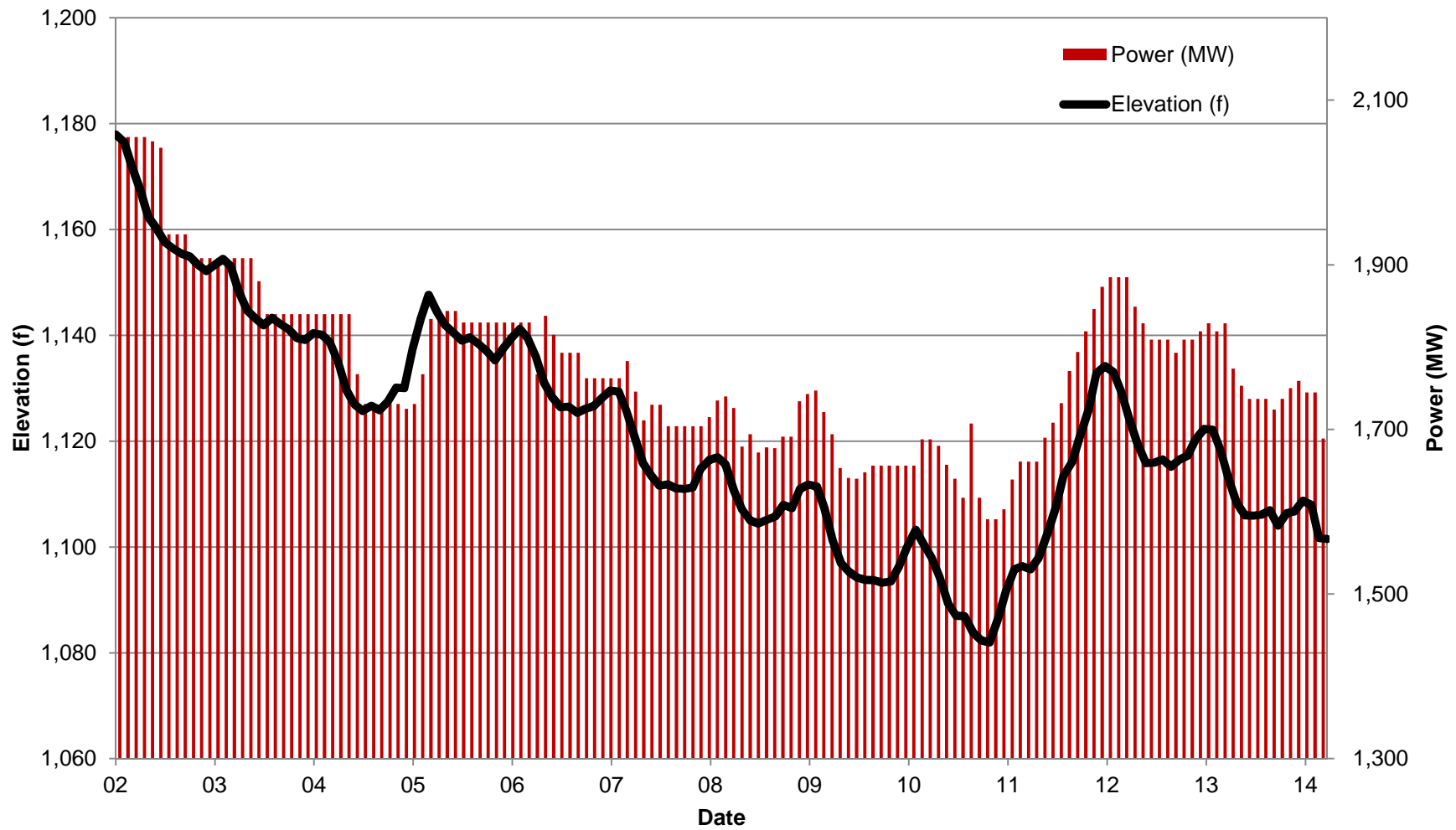
Water Use	2013 Acre Feet	2014 Acre Feet	Difference	% Change
Las Vegas Wash Gauged Flow	35,007	35,848	841	2.4%
Diversions	52,701	52,529	-172	-0.3%
Return Flow Credit	35,267	36,373	1,106	3.1%
Consumptive Use	17,435	16,156	-1,279	-7.3%





# Power Generation and Elevation

**Elevation and Power Generation**



# Colorado River Commission of Nevada

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