

# Colorado River Commission of Nevada

## **Natural Resources Group Hydrologic Update March 10, 2015**



# Unregulated Inflow



# Unregulated Inflow Into Lake Powell

As of March 9, 2015

|                               | MAF* | % Avg** |
|-------------------------------|------|---------|
| • WY 2015 (forecast):         | 8.61 | 79%     |
| • April-July 2015 (forecast): | 5.10 | 71%     |
| • February (observed):        | 0.42 | 108%    |
| • March (forecasted):         | 0.53 | 80%     |

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

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



# Storage Conditions

As of March 9, 2015

Percent of  
Capacity

Δ from last year

Lake Mead elev.      1087.98 ft      41%       18.63 ft

Lake Powell elev.      3,592.11 ft      45%       16.58 ft

Total System  
Storage (3/2015)      29.20 maf      49%       0.48 maf

Total System  
Storage (3/2014)      28.72 maf      48%



# Reservoir Storage

As of March 9, 2015

## Colorado River Reservoir Storages

| Basin       | Reservoir         | Max Storage       | *Current Storage  | Percentage | Current Storage subtotals |
|-------------|-------------------|-------------------|-------------------|------------|---------------------------|
| Upper Basin | Crystal Reservoir | 17,356            | 16,743            | 96%        | 5,172,251                 |
|             | Flaming Gorge     | 3,749,000         | 3,198,422         | 85%        |                           |
|             | Fontenelle        | 344,800           | 202,238           | 59%        |                           |
|             | Morrow Point      | 117,190           | 109,635           | 94%        |                           |
|             | Blue Mesa         | 829,500           | 546,604           | 66%        |                           |
|             | Navajo            | 1,696,000         | 1,098,609         | 65%        |                           |
|             | Lake Powell       | 24,322,000        | 11,015,346        | 45%        |                           |
| Lower Basin | Lake Mead         | 26,120,000        | 10,683,000        | 41%        | 2,330,000                 |
|             | Lake Mohave       | 1,809,800         | 1,740,300         | 96%        |                           |
|             | Lake Havasu       | 619,400           | 589,700           | 95%        |                           |
|             | <b>TOTAL</b>      | <b>59,625,046</b> | <b>29,200,597</b> | <b>49%</b> |                           |

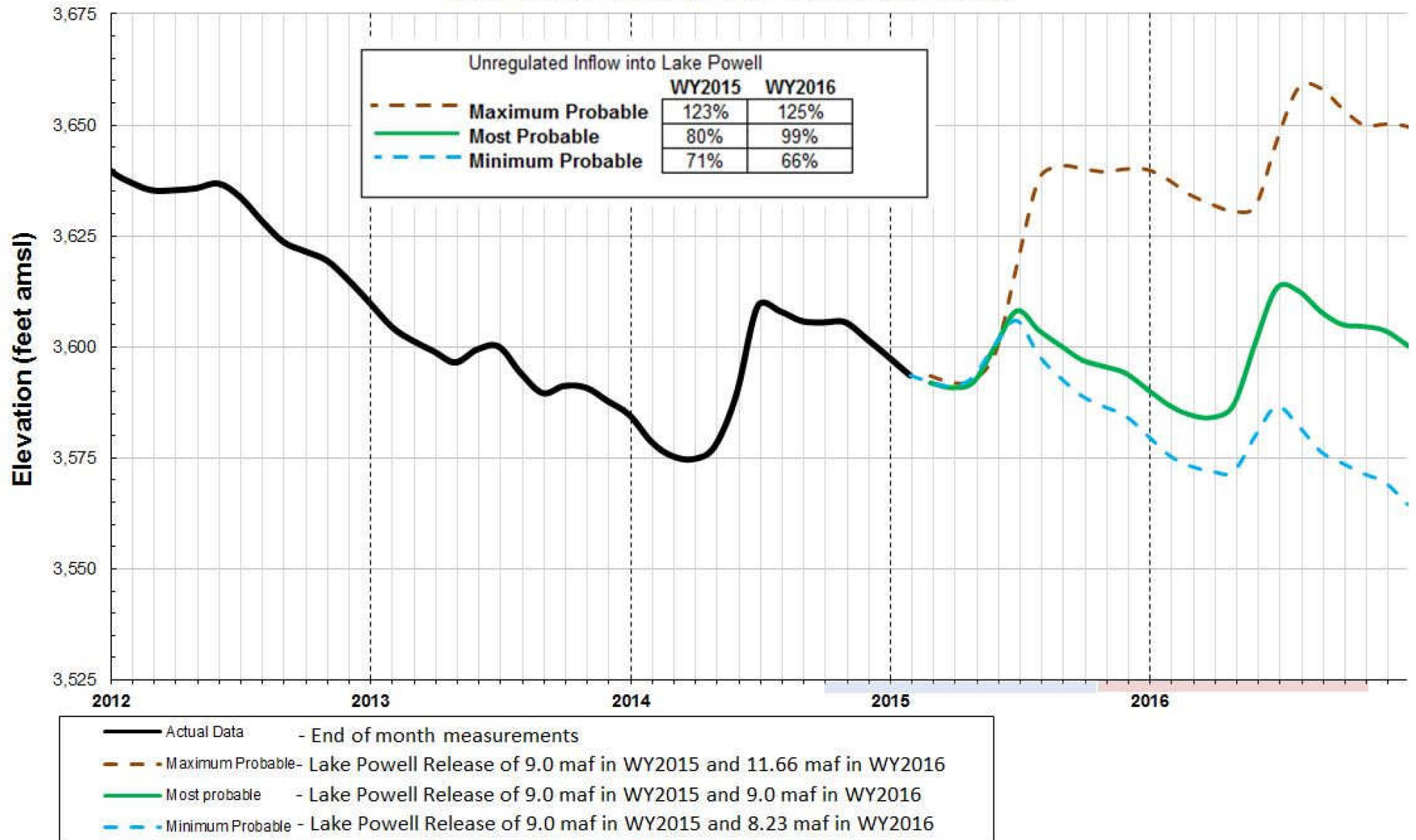
\*Data current as 3/9/2015

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

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

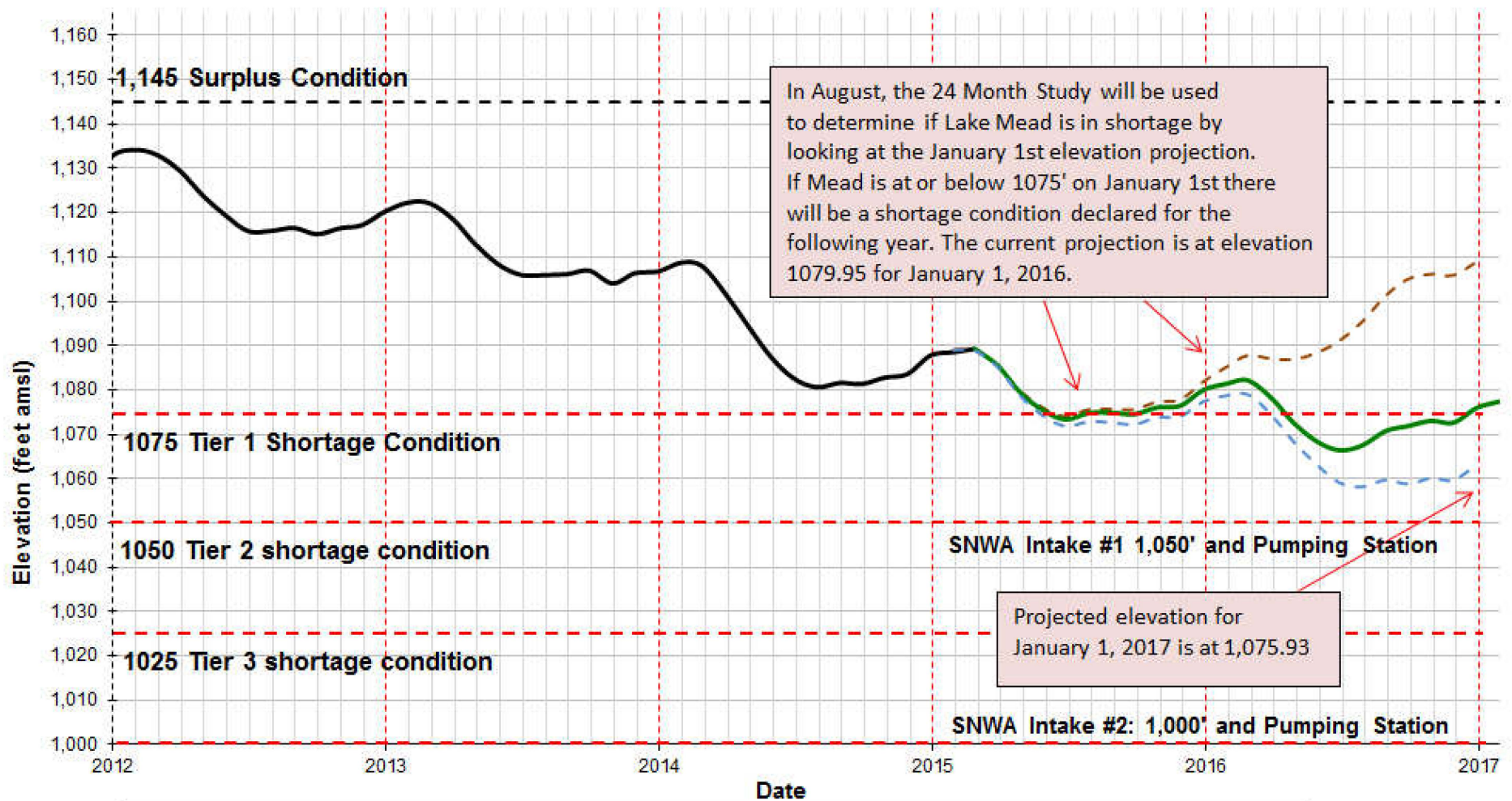
# Lake Powell End of Month Elevations

(based on February 2015 24-month Study)



# Lake Mead End of Month Elevation Projections

(Projections based on the February 2015 24-month study)



|       |                                         |                                                                    |
|-------|-----------------------------------------|--------------------------------------------------------------------|
| —     | Actual Data - End of month measurements |                                                                    |
| - - - | Maximum Probable                        | - Lake Powell Release of 9.0 maf in WY2015 and 11.66 maf in WY2016 |
| —     | Most probable                           | - Lake Powell Release of 9.0 maf in WY2015 and 9.0 maf in WY2016   |
| - - - | Minimum Probable                        | - Lake Powell Release of 9.0 maf in WY2015 and 8.23 maf in WY2016  |

# Drought and Precipitation



# Precipitation – Colorado River Basin

As of March 9, 2015

## Upper Colorado Basin

WY 2015 Precip to Date

83% (12.8")

Current Basin Snowpack

87% (11.8")

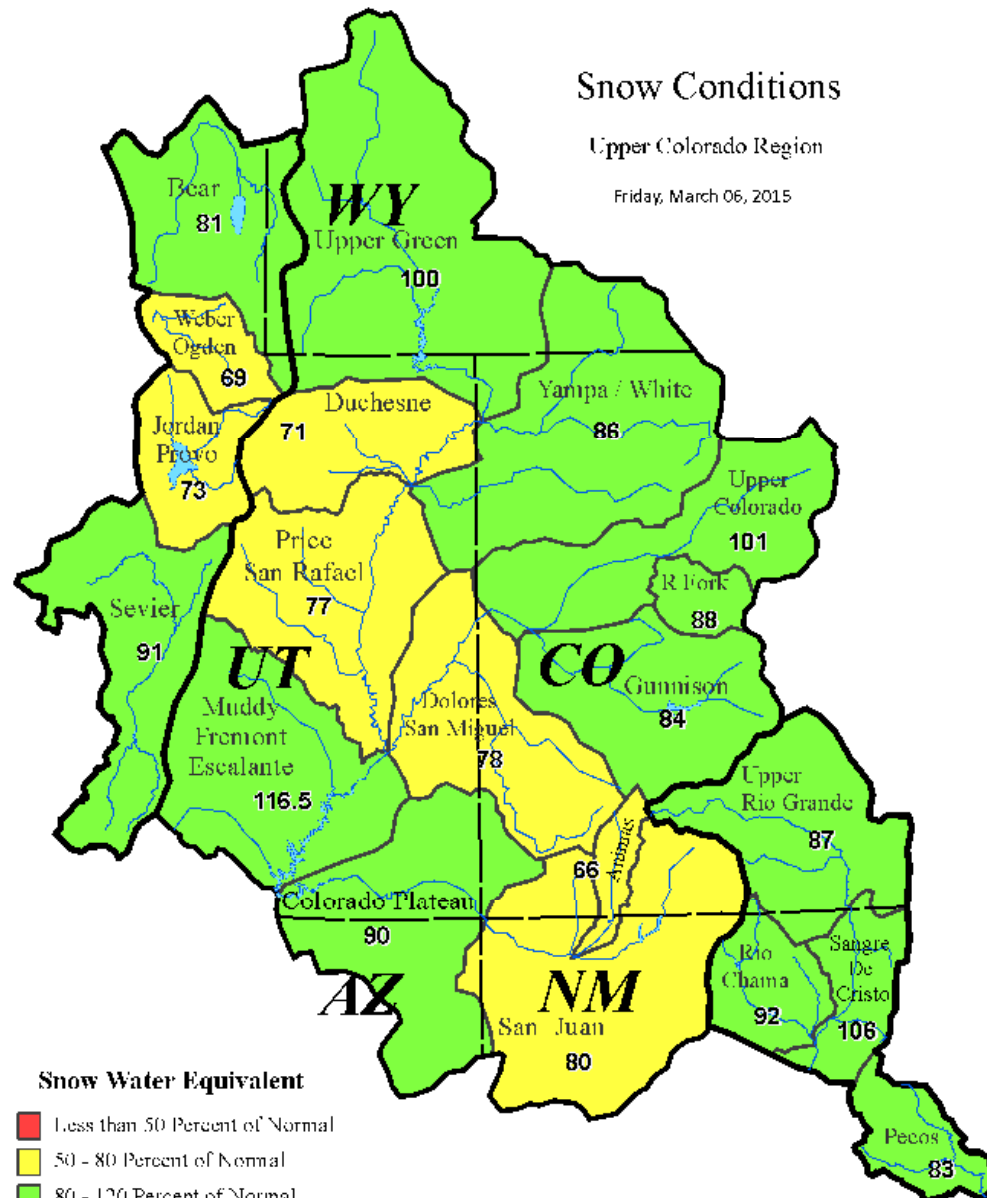
(Avg 1981-2010)



## Snow Conditions

Upper Colorado Region

Friday, March 06, 2015



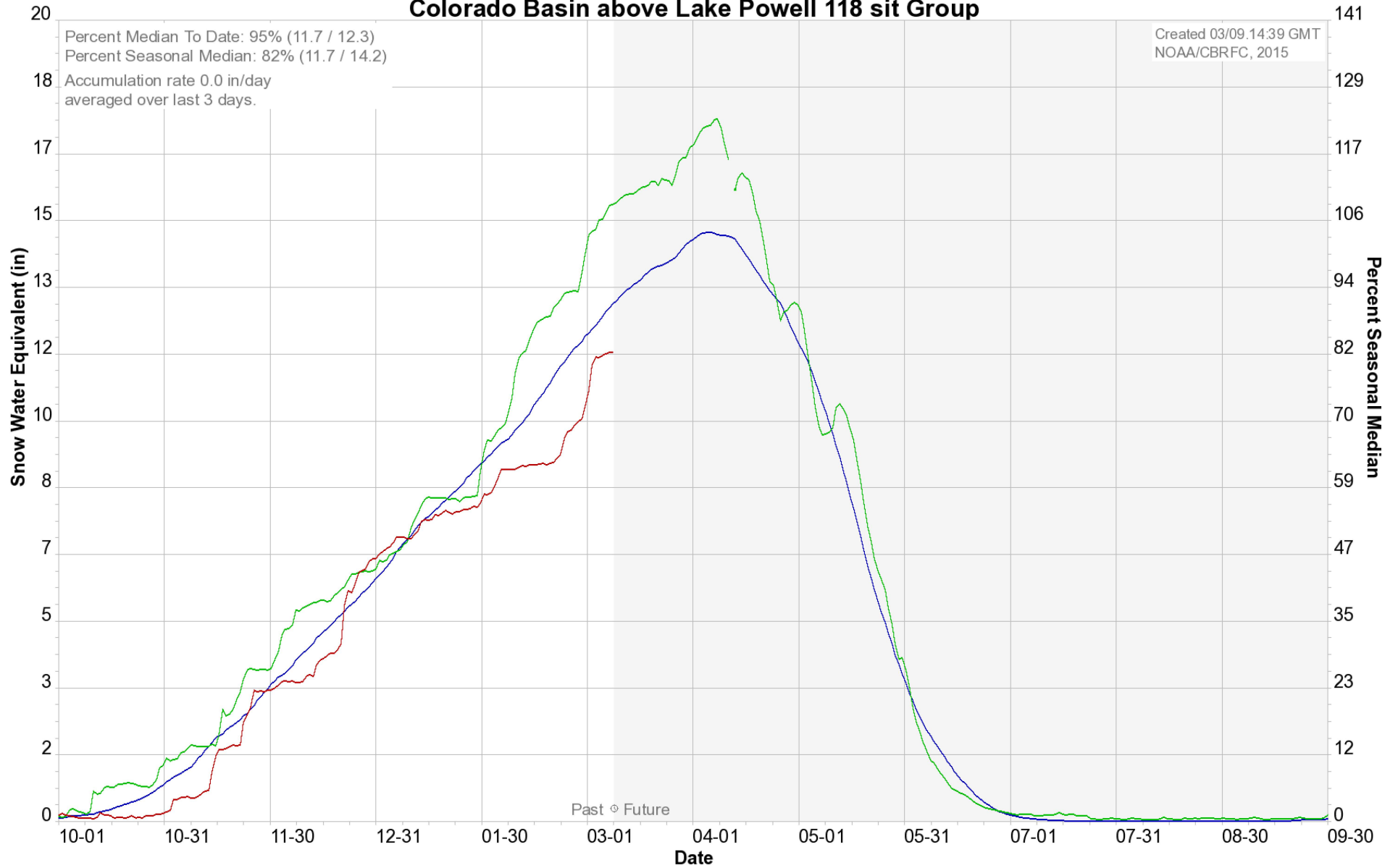
### Snow Water Equivalent

- Less than 50 Percent of Normal
- 50 - 80 Percent of Normal
- 80 - 120 Percent of Normal
- 120 - 150 Percent of Normal
- Greater than 150 Percent of Normal

Data Provided by the Natural Resource Conservation Service

Upper Colorado  
**GIS**  
Region

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



# U.S. Drought Monitor

## West

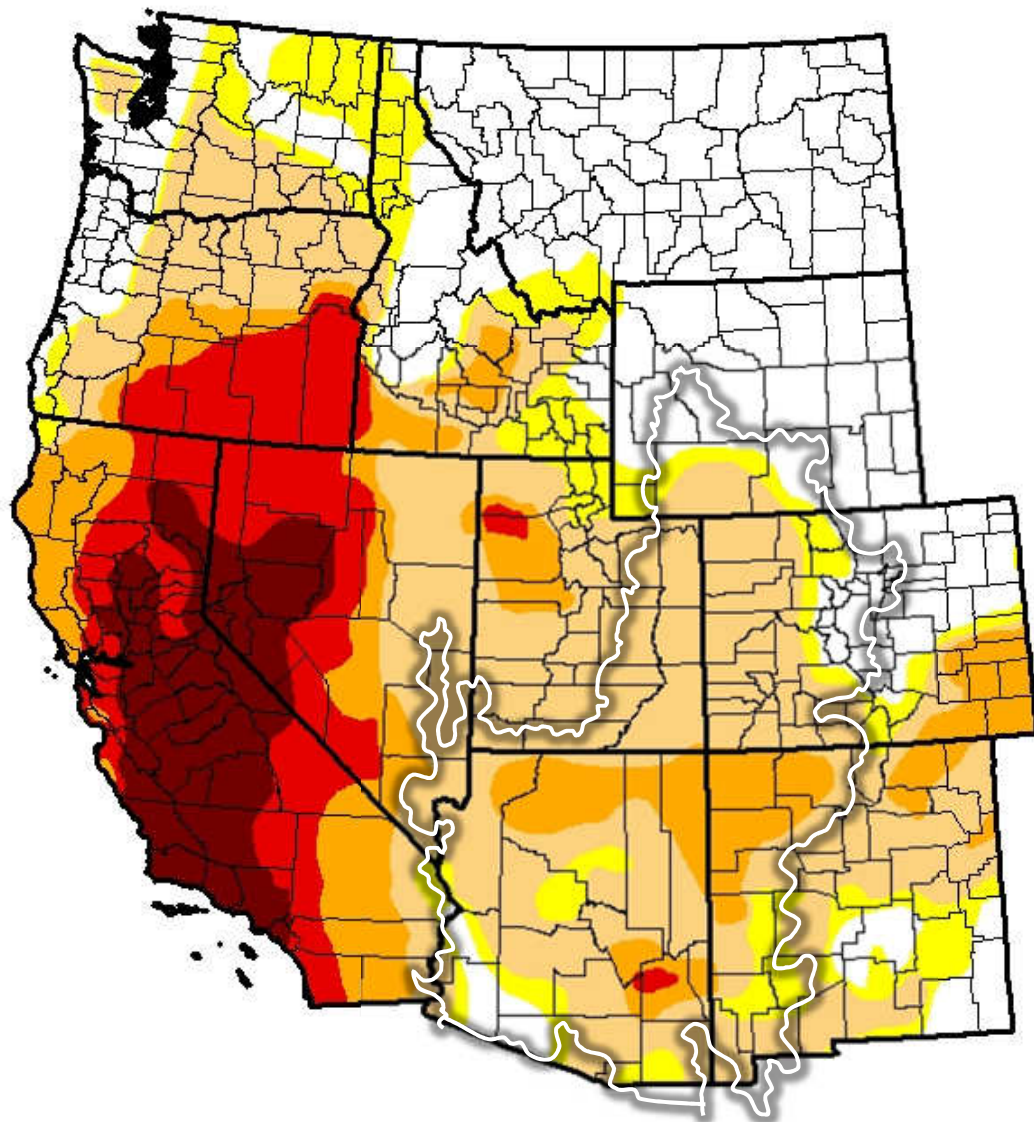
**March 3, 2015**

*(Released Thursday March 5, 2015)*

Valid 7 a.m. EST

### Intensity:

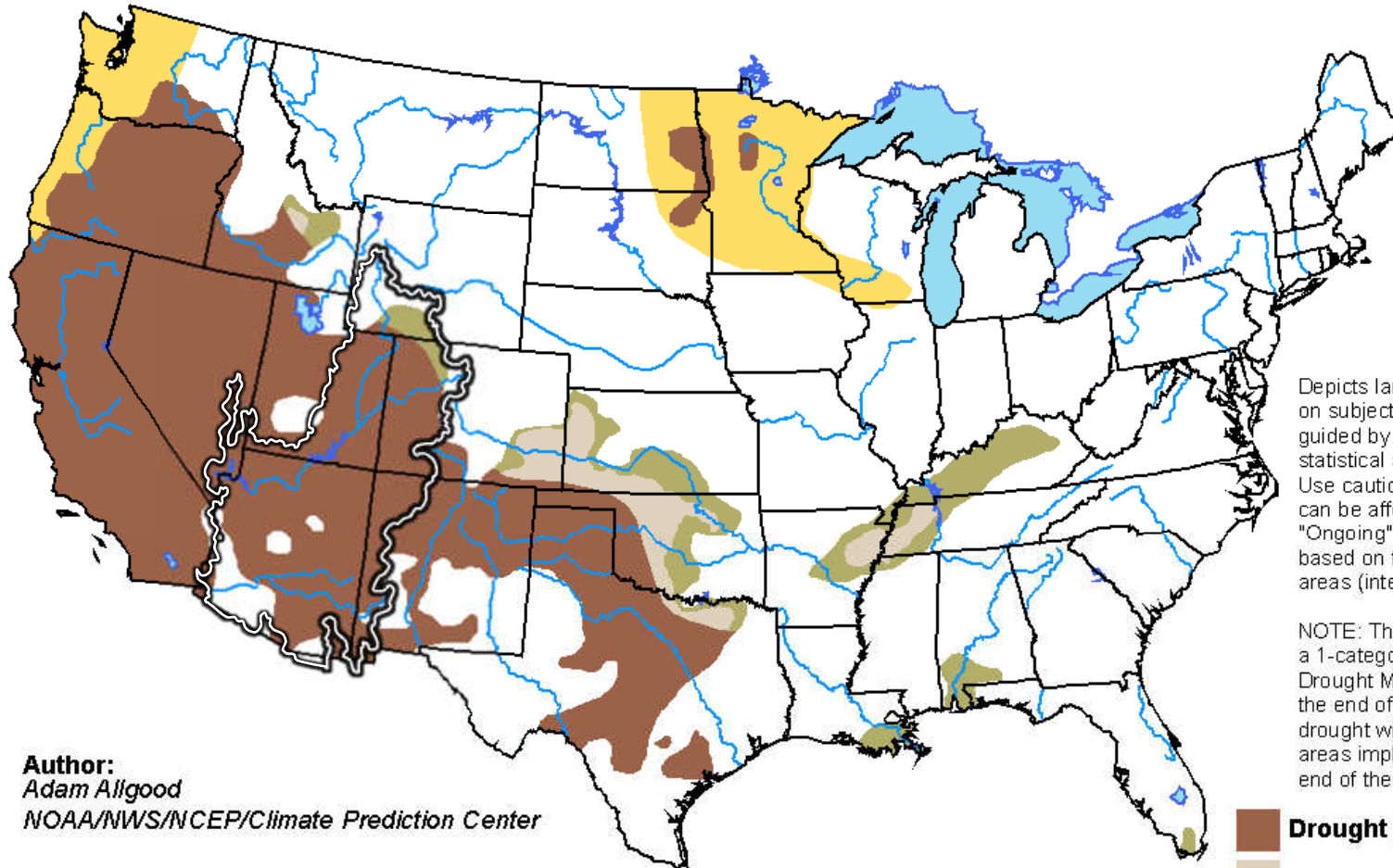
-  D0 - Abnormally Dry
-  D1 - Moderate Drought
-  D2 - Severe Drought
-  D3 - Extreme Drought
-  D4 - Exceptional Drought



# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for February 19 - May 31, 2015  
Released February 19, 2015

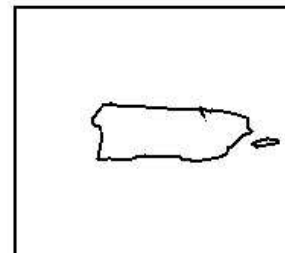
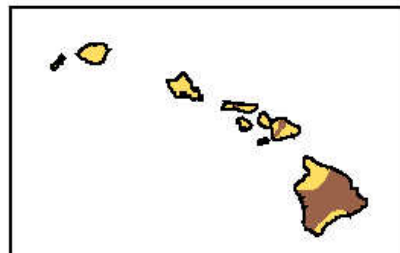
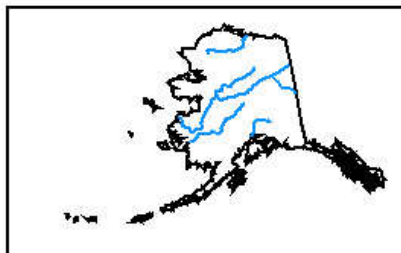


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

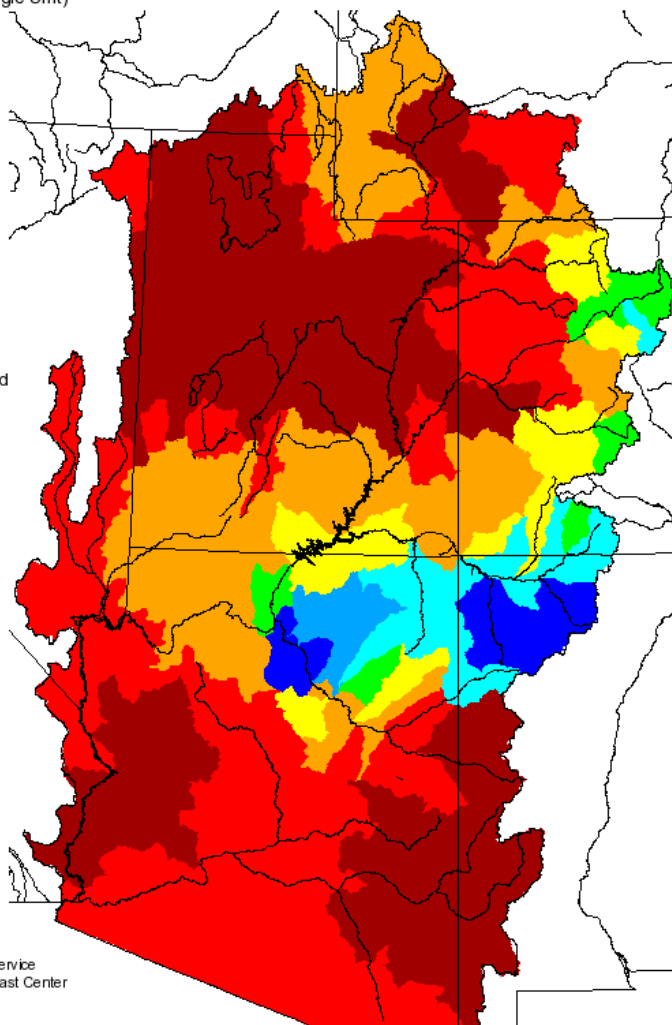
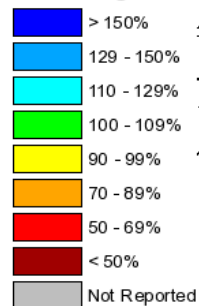


<http://go.usa.gov/hHTe>

## Monthly Precipitation for February 2015

(Averaged by Hydrologic Unit)

### % Average

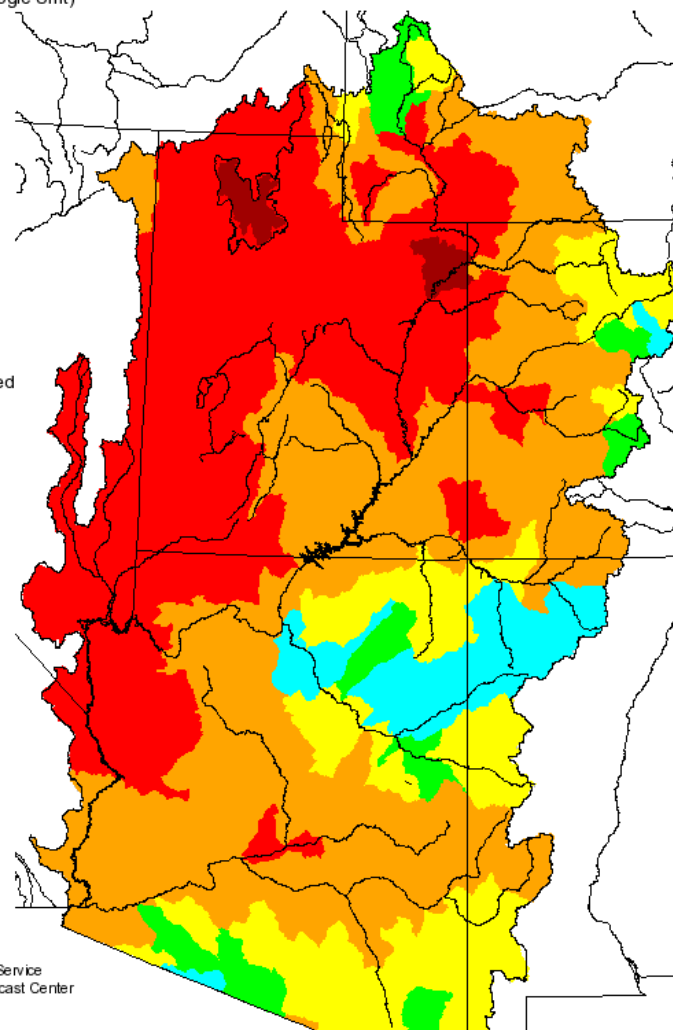
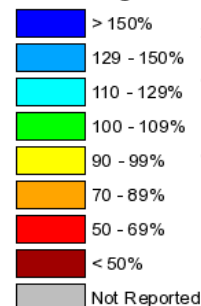


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

## Seasonal Precipitation, October 2014 - February 2015

(Averaged by Hydrologic Unit)

### % Average

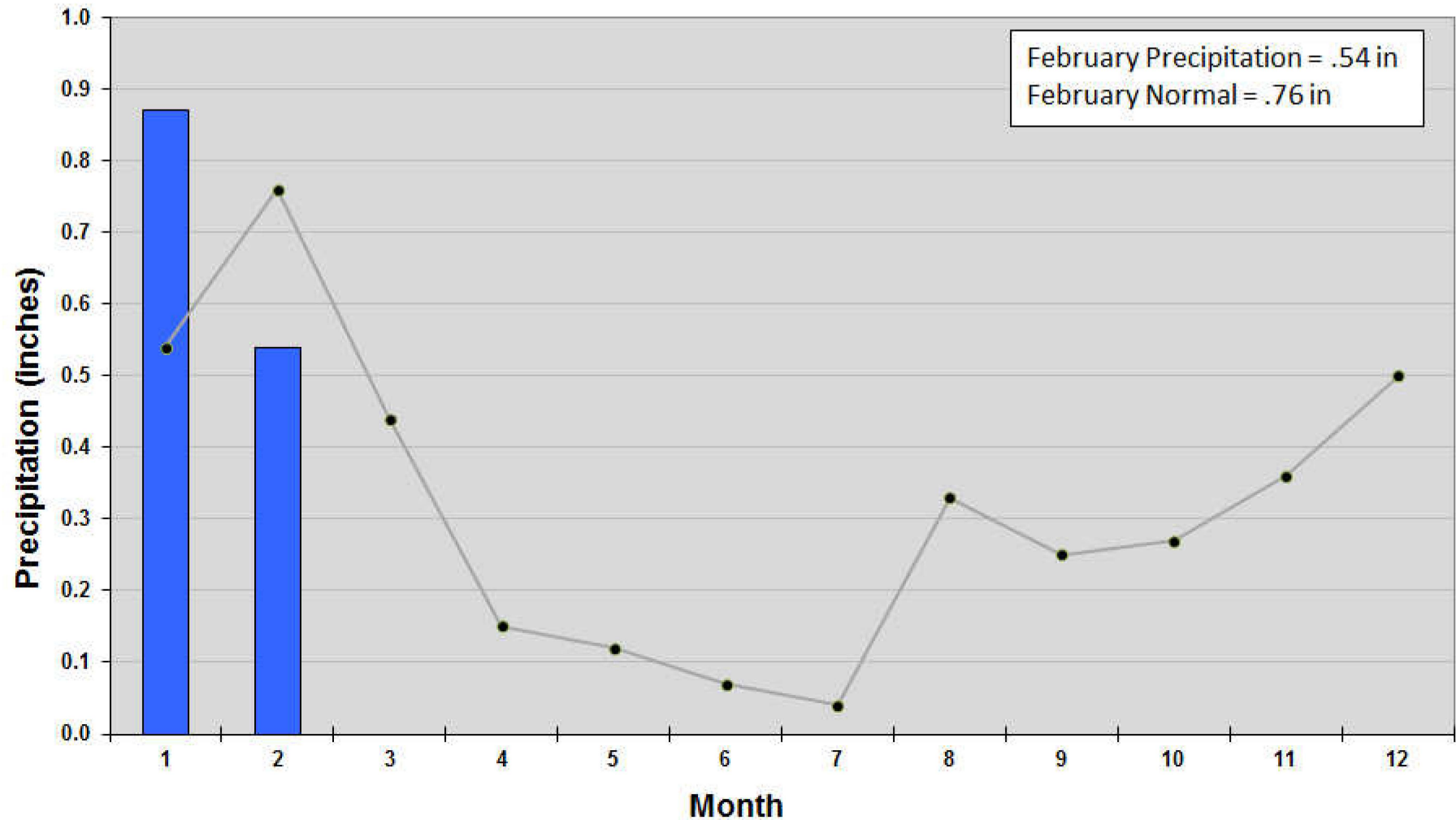


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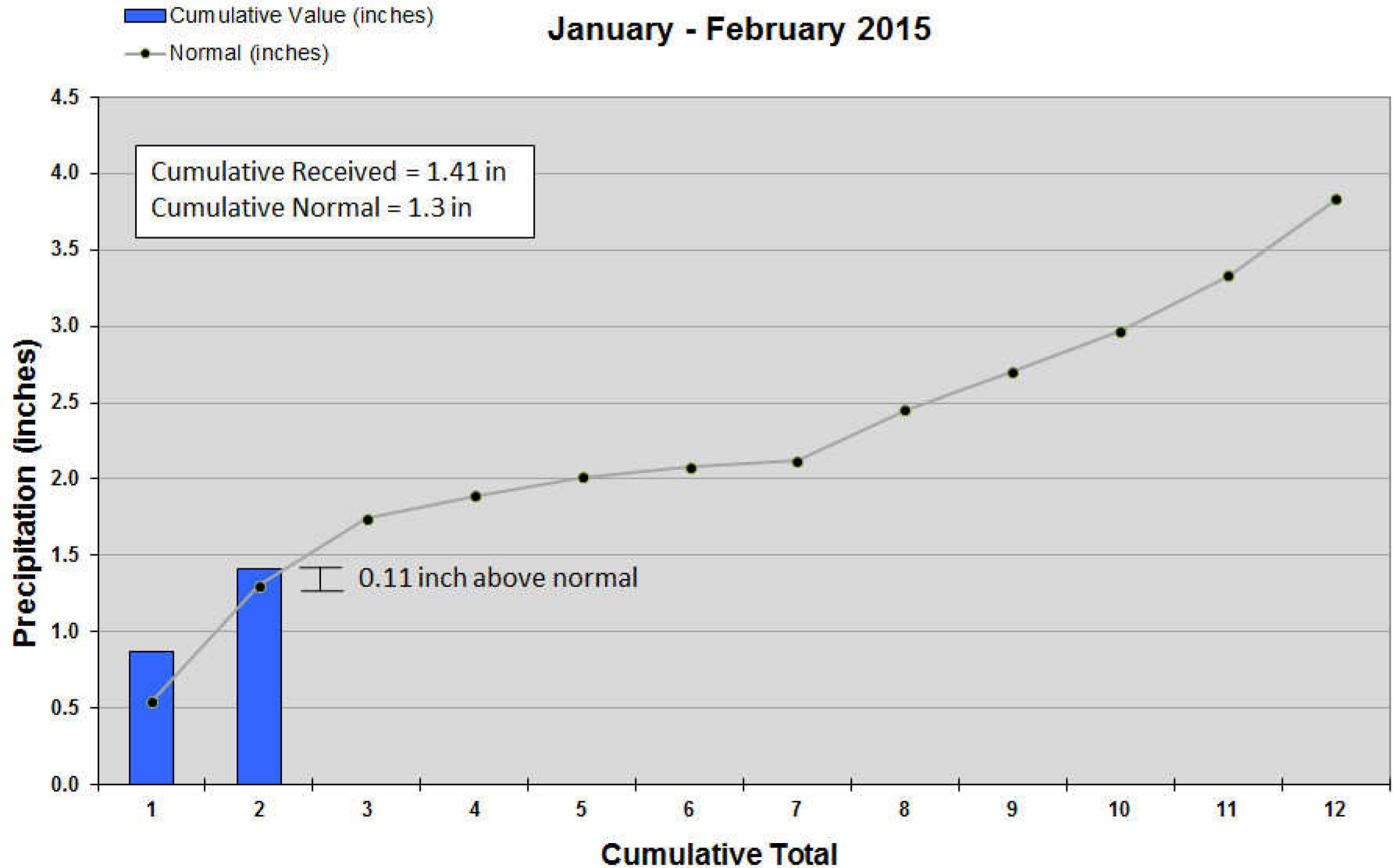
## Monthly Precipitation at McCarran International Airport, Las Vegas, NV

Recorded Value (inches)  
Normal (inches)

January - February 2015



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



# Water Use in Southern Nevada



# Water Use in Southern Nevada

January 2015

2015\*: Consumptive Use = 6,146 af

2014\*: Consumptive Use = 8,129 af

**Difference = -1,983 af**

\*Subject to final accounting.



# Colorado River Commission of Nevada

## Questions?

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