Colorado River Commission of Nevada

Natural Resources Group
Hydrologic Update
February 18, 2016

Unregulated Inflow Into Lake Powell

As of February 8, 2016

	MAF*	% Avg**
• WY 2016 (Projected):	9.92	92%
• April-July 2016 (Projected):	6.70	94%
• January (observed):	0.30	83%
• February (forecasted):	0.35	89%

***MAF=Million Acre-Feet**

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

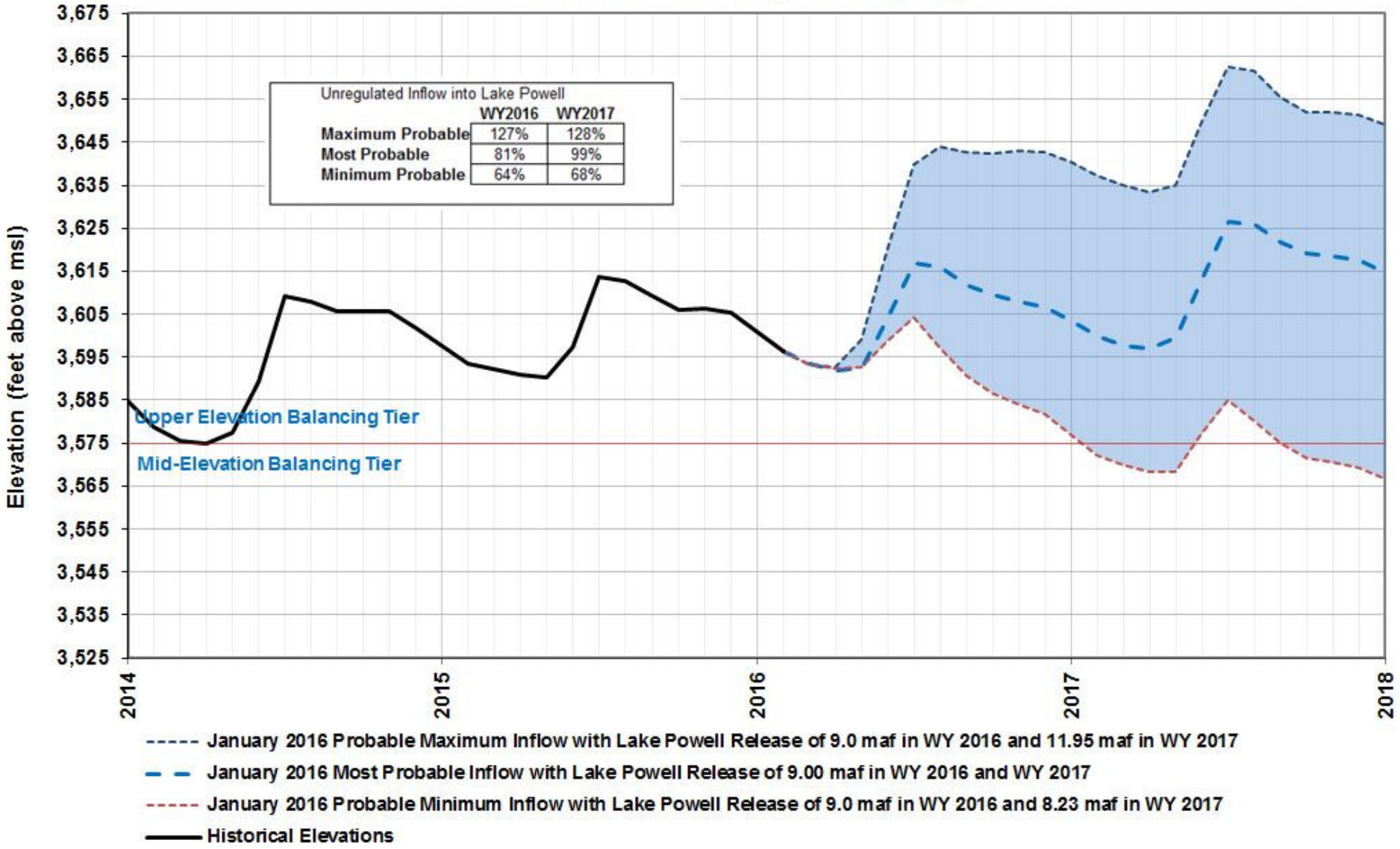
Storage Conditions

As of February 8, 2016

		Percent of Capacity	Δ from last year
Lake Mead elev.	1084.03 ft	40%	↓ 4.82 ft
Lake Powell elev.	3,595.99 ft	47%	↑ 2.70 ft
Total System Storage (2/2016)	29.35 maf	49%	↓ 0.02 maf
Total System Storage (2/2015)	29.37 maf	49%	

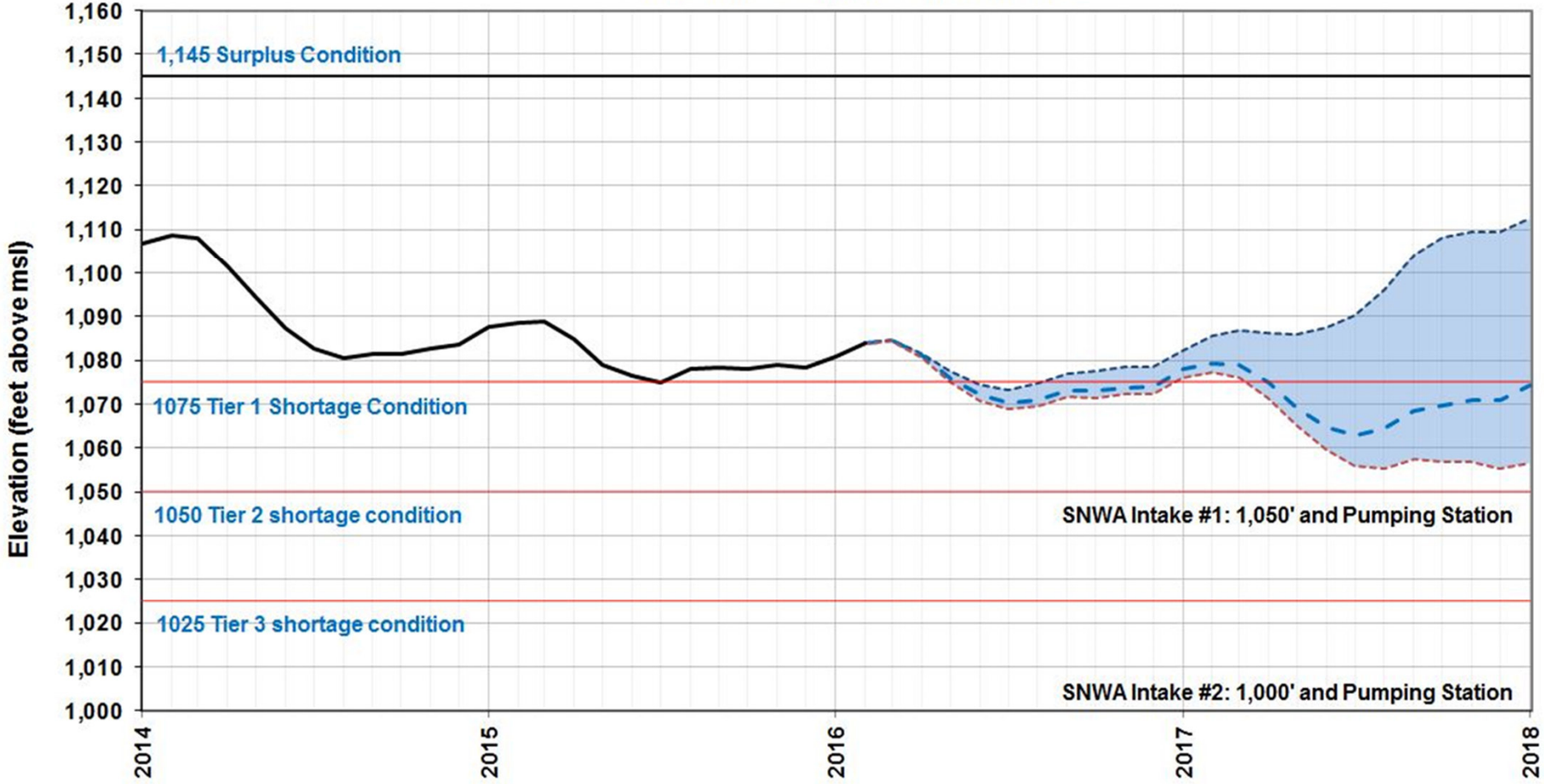
Lake Powell Projections

Reclamation's January 24-Month Study



Lake Mead Projections

Reclamation's January 24-Month Study



January 2016 Probable Maximum Inflow with Lake Powell Release of 9.0 maf in WY 2016 and 11.95 maf in WY 2017

January 2016 Most Probable Inflow with Lake Powell Release of 9.00 maf in WY 2016 and WY 2017

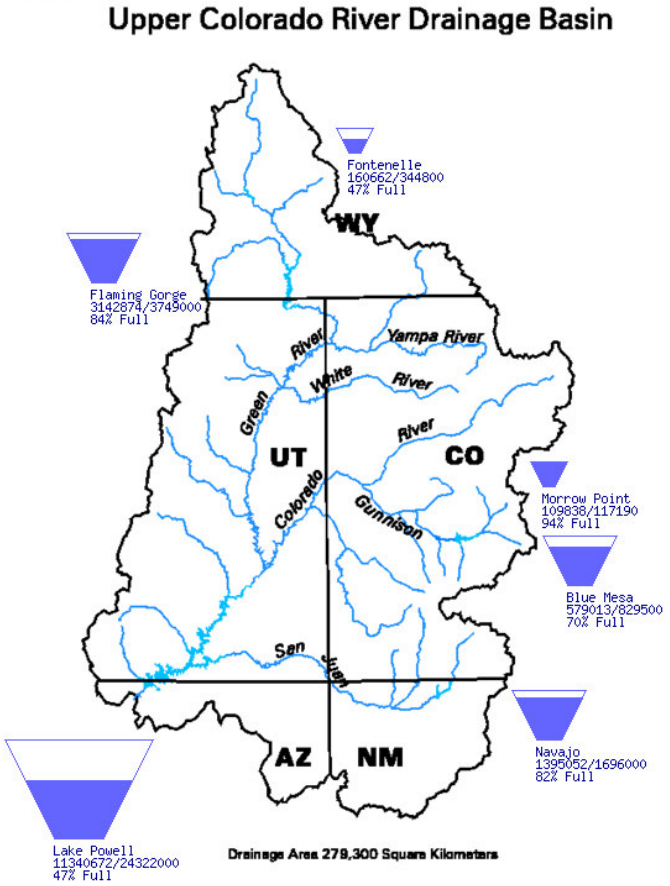
January 2016 Probable Minimum Inflow with Lake Powell Release of 9.0 maf in WY 2016 and 8.23 maf in WY 2017

Historical Elevations

Reservoir Storage

As of February 10, 2016

Data Current as of:
02/10/2016



Colorado River Reservoir Storages

Basin	Reservoir	Max Storage	*Current Storage	Percentage	Current Storage subtotals
Upper Basin	Crystal Reservoir	17,356	15,015	87%	5,402,454
	Flaming Gorge	3,749,000	3,142,874	84%	
	Fontenelle	344,800	160,662	47%	
	Morrow Point	117,190	109,838	94%	
	Blue Mesa	829,500	579,013	70%	
	Navajo	1,696,000	1,395,052	82%	
	Lake Powell	24,322,000	11,340,672	47%	
Lower Basin	Lake Mead	26,120,000	10,355,000	40%	
	Lake Mohave	1,809,800	1,645,800	91%	2,198,000
	Lake Havasu	619,400	552,200	89%	
	TOTAL	59,625,046	29,296,126	49%	

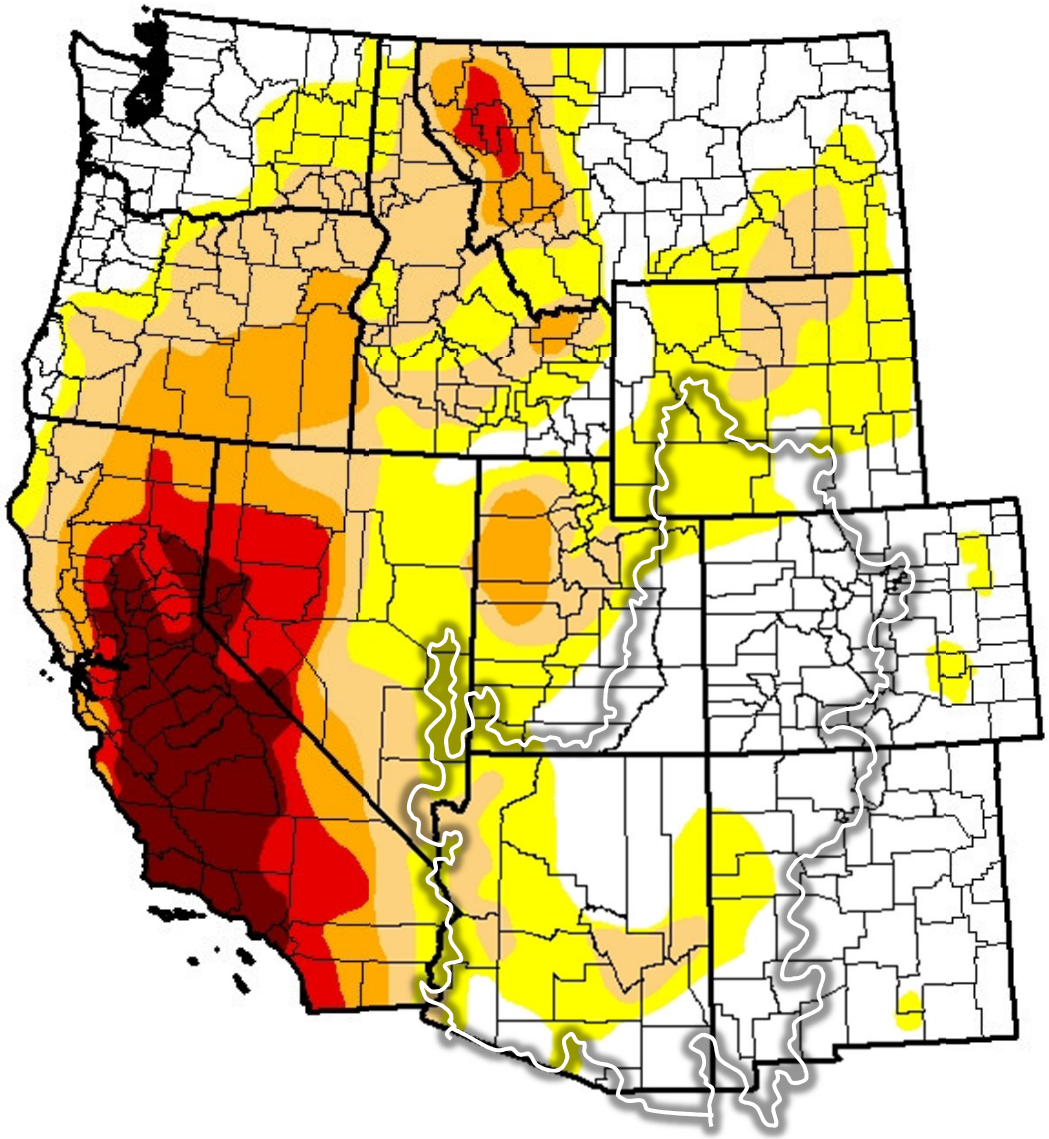
**Data current as 2/10/2016*

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

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

U.S. Drought Monitor

West



February 9, 2016

(Released Thursday, Feb. 11, 2016)

Valid 7 a.m. EST

Intensity:

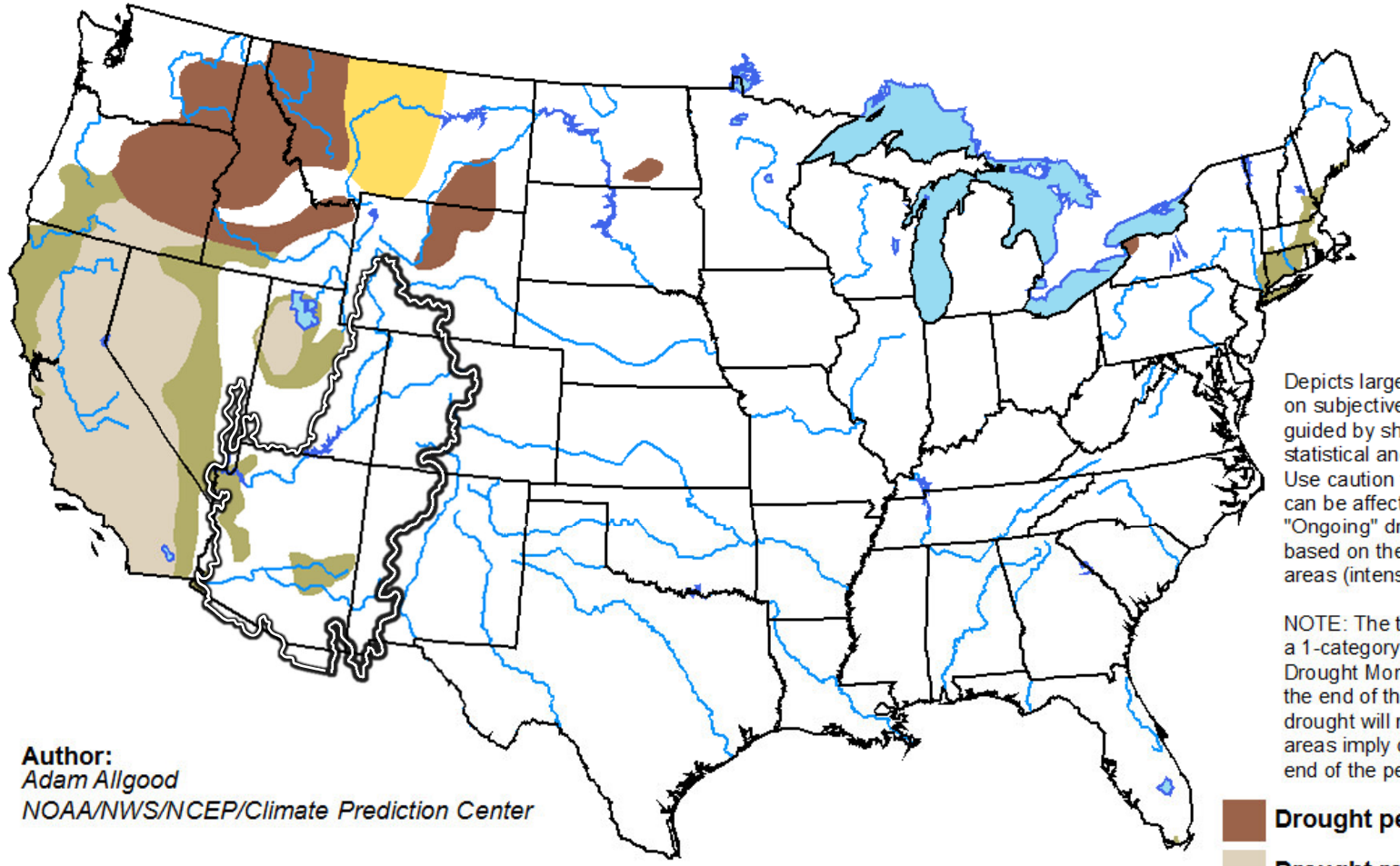
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

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

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for January 21 - April 30, 2016
Released January 21, 2016



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

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).

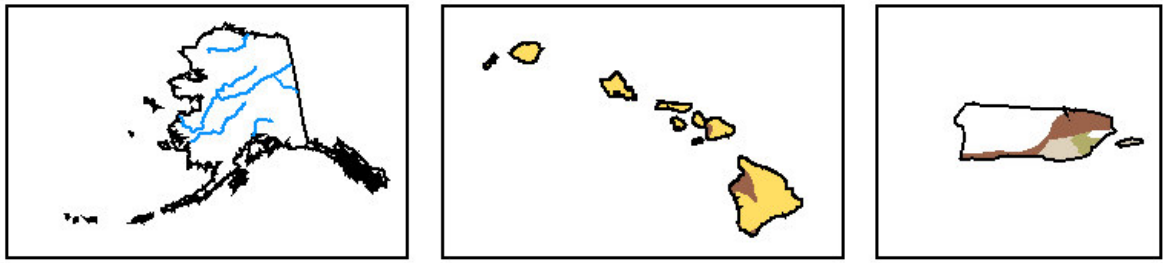
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Drought persists

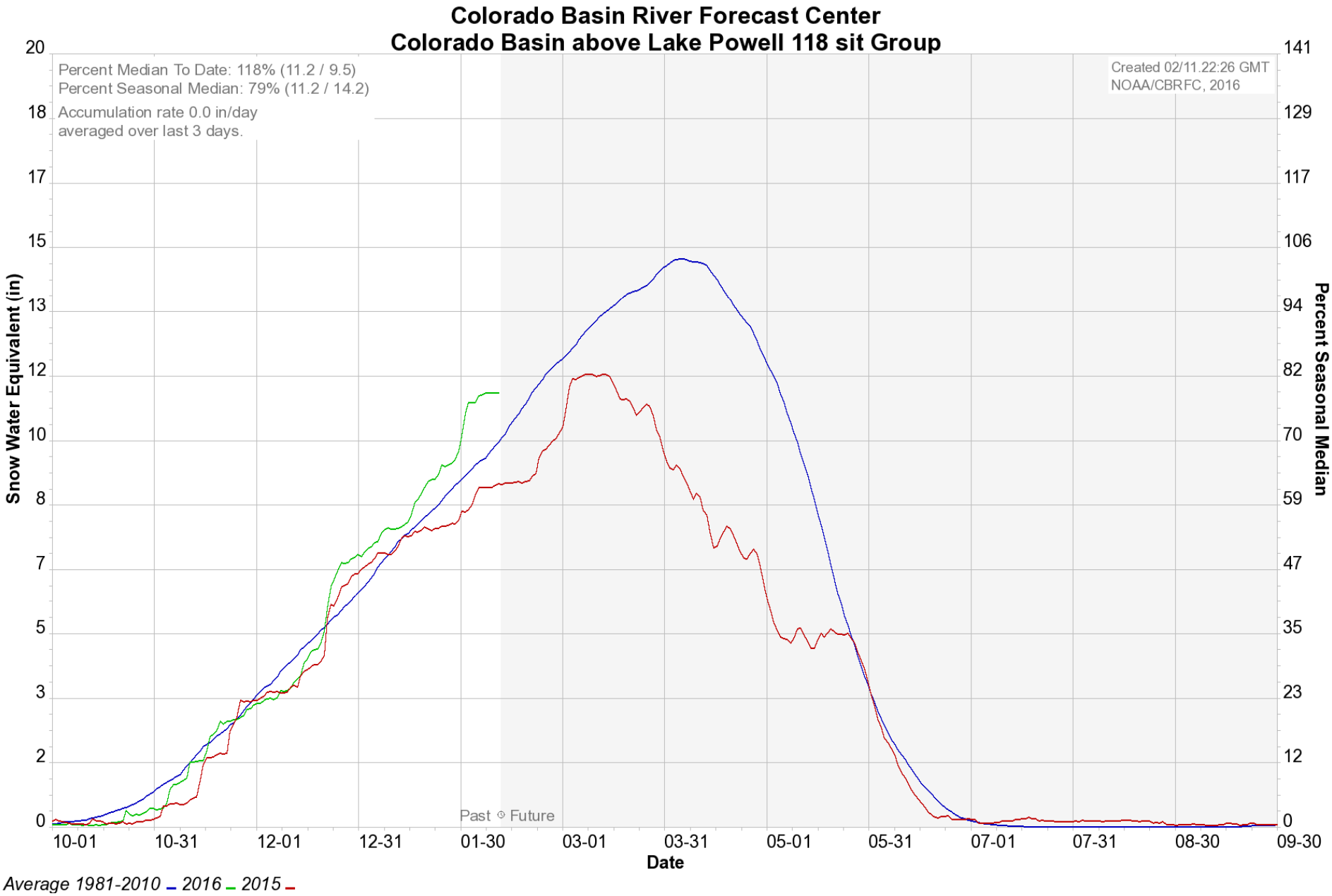
Drought remains but improves

Drought removal likely

Drought development likely



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


Colorado Basin River Forecast Center
Colorado Basin above Lake Powell 118 sit Group
Percent Median To Date: 118% (11.2 / 9.5)
Percent Seasonal Median: 79% (11.2 / 14.2)
Accumulation rate 0.0 in/day
averaged over last 3 days.
Created 02/11.22:26 GMT
NOAA/CBRFC, 2016
Snow Water Equivalent (in)
Percent Seasonal Median
Past
Future
Date
10-01
10-31
12-01
12-31
01-30
03-01
03-31
05-01
05-31
07-01
07-31
08-30
09-30
Average 1981-2010
2016
2015

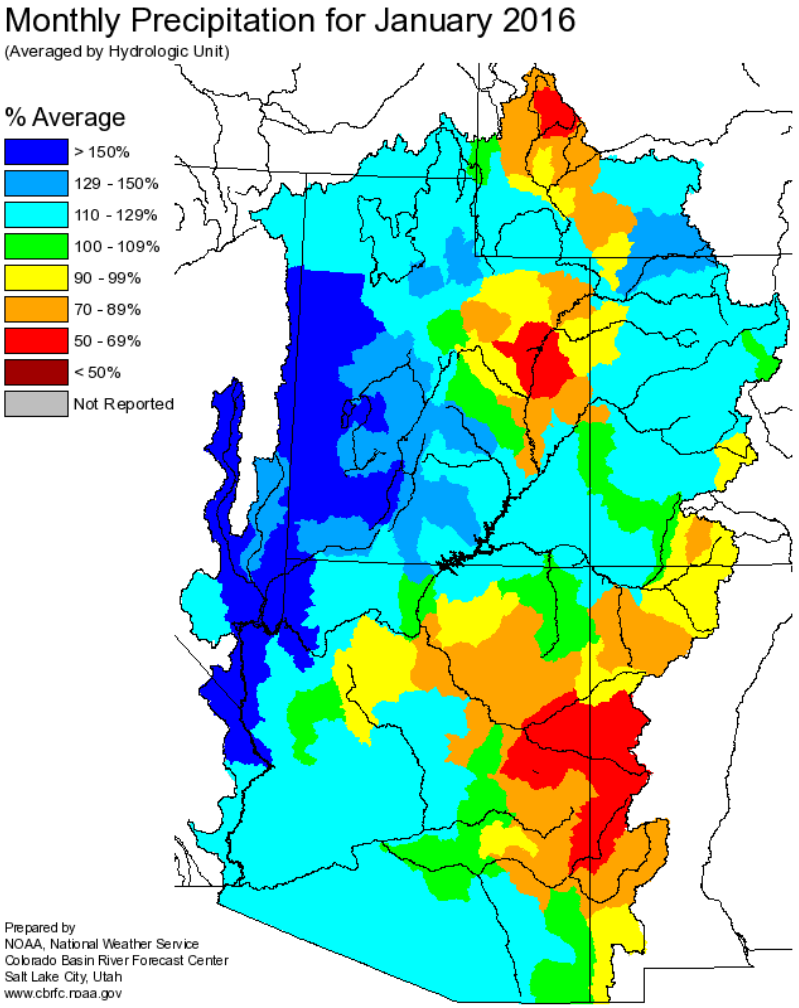
Precipitation – Colorado River Basin

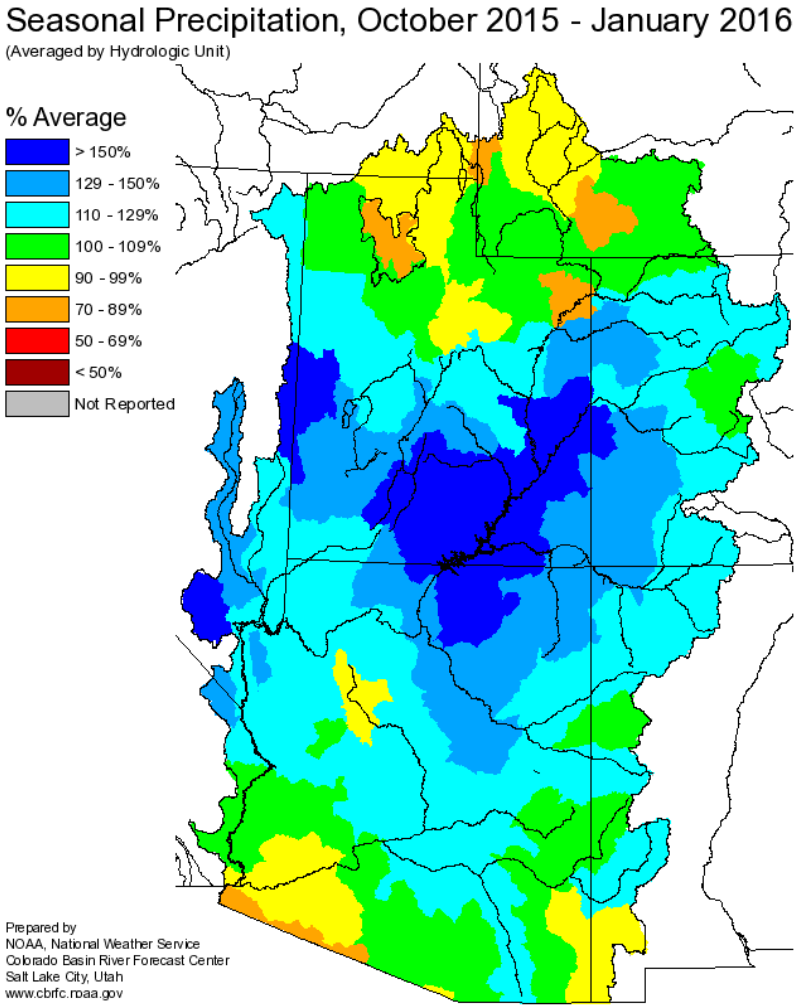
As of February 8, 2016

	Upper Colorado Basin
WY Precip to Date	106% (13.1″)
Current Basin Snowpack	111% (11.5″)

(Avg 1981-2010)

Precipitation





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

Water Use in Southern Nevada

Water Use in Southern Nevada

January – December 2015

2015*: Consumptive Use = 222,699 af

2014: Consumptive Use = 224,622 af

Difference = - 1,923 af

*Subject to final accounting.

Precipitation and Temperature on Valley Water Use

- **The planning division within LVVWD has developed a demand model that shows changes in average daily water use per account caused by deviations in temperature, precipitation, and wind speed from normal conditions.**
- **On a monthly basis the model suggests that each degree above normal results in an 11 gallon increase in average daily use.**
- **Each inch of precipitation above normal results in a 32 gallon decrease in average daily use**
- **Each one mph of wind speed above normal results in a 16 gallon increase in average daily use.**
- **The model is updated yearly to reflect the most current available data.**
- **Due to turf removal programs the impact of temperature and precipitation is causing less of an effect than it did in the past.**

Colorado River Commission of Nevada

Questions?

Warren Turkett Ph.D.
wturkett@crc.nv.gov