

Colorado River Commission of Nevada

Natural Resources Group Hydrologic Update July 9, 2013



Hydrologic Conditions



Unregulated Inflow Into Lake Powell

As of July 1, 2013

	MAF*	% Avg**
• WY 2013 (projected):	4.65	43%
• April-July 2013 (projected):	2.88	40%
• May 2013 (observed):	1.12	48%
• June 2013 (projected):	1.10	41%

***MAF=Million Acre-Feet**

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



Storage Conditions

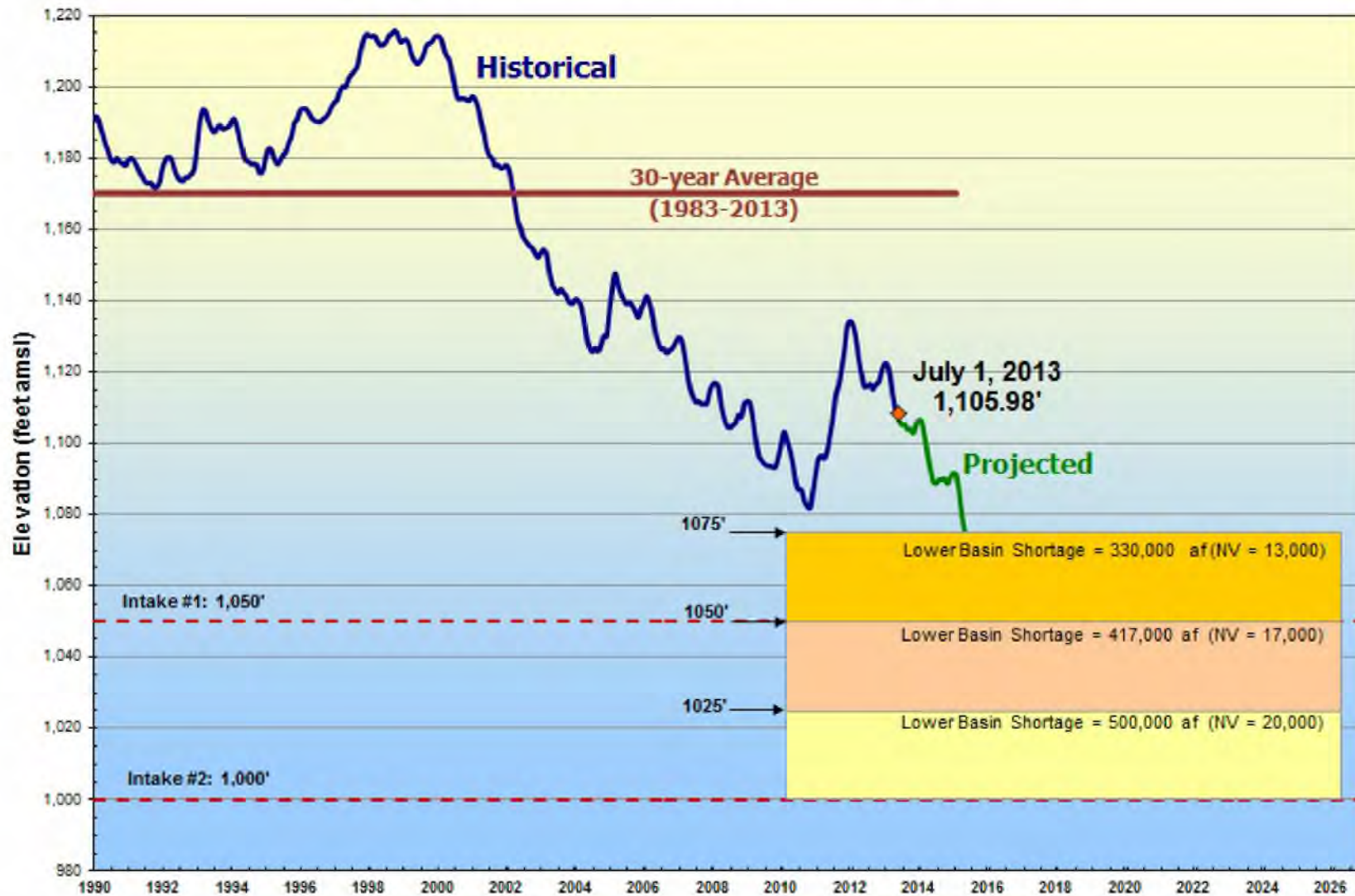
As of July 1, 2013

		<u>Percent of Capacity</u>	<u>Δ from last year</u>
Lake Mead elev.	1,105.98 ft	47%	↓ 9.89 ft
Lake Powell elev.	3,600.07 ft	48%	↓ 33.62 ft
Total System Storage (6/2013)	30.99 maf	52%	↓ 5.06 maf
Total System Storage (6/2012)	36.05 maf	60%	



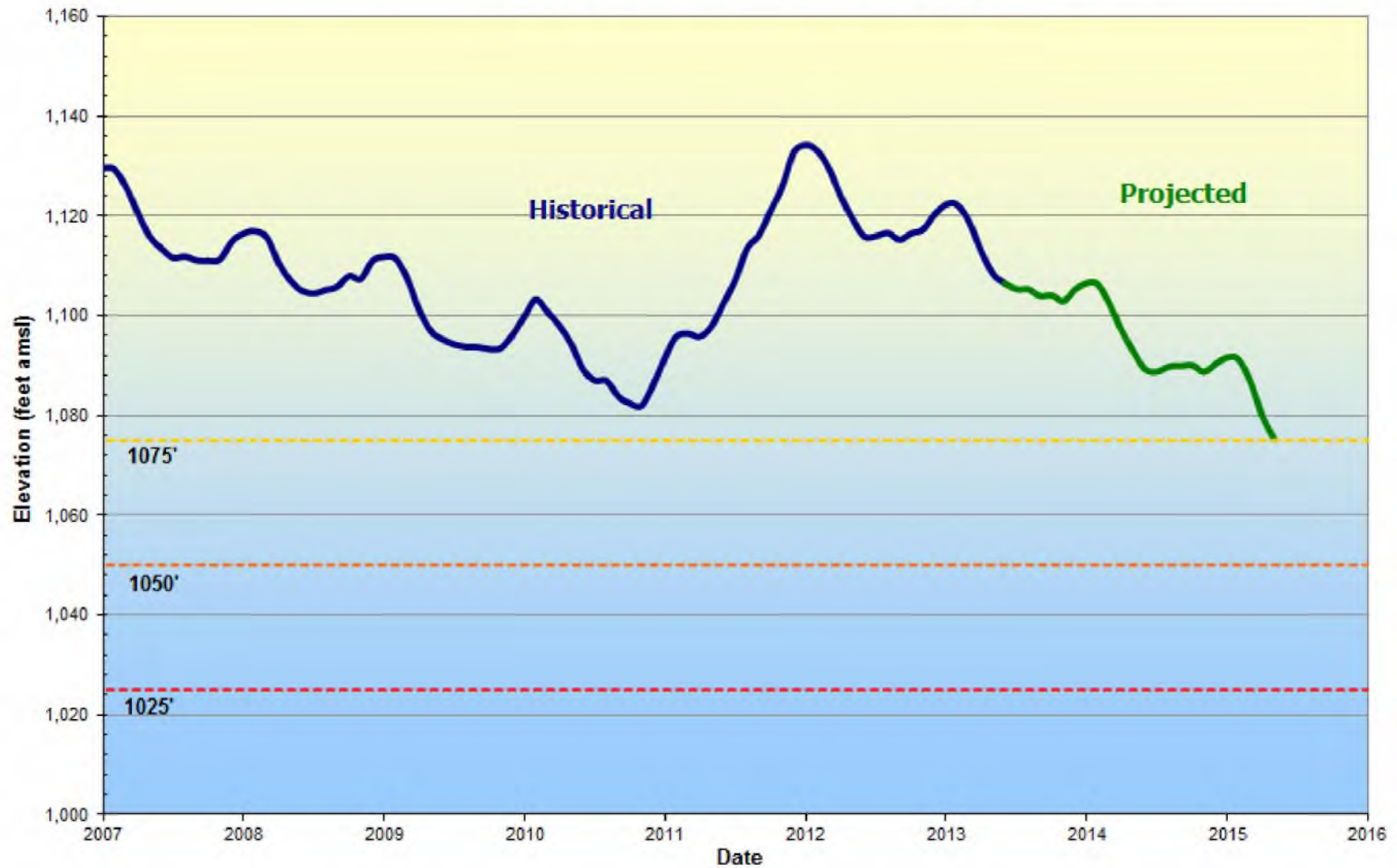
Lake Mead End of Month Elevation Projections

(based on the June 2013 24-month study)



Lake Mead End of Month Elevation Projections

(based on the June 2013 24-month study)



Precipitation - Colorado River Basin

As of July 1, 2013

Upper Colorado Basin

WY Precip to Date

76% (18.7")

Current Basin Snowpack

NA% (NA")

(Avg 1981-2010)

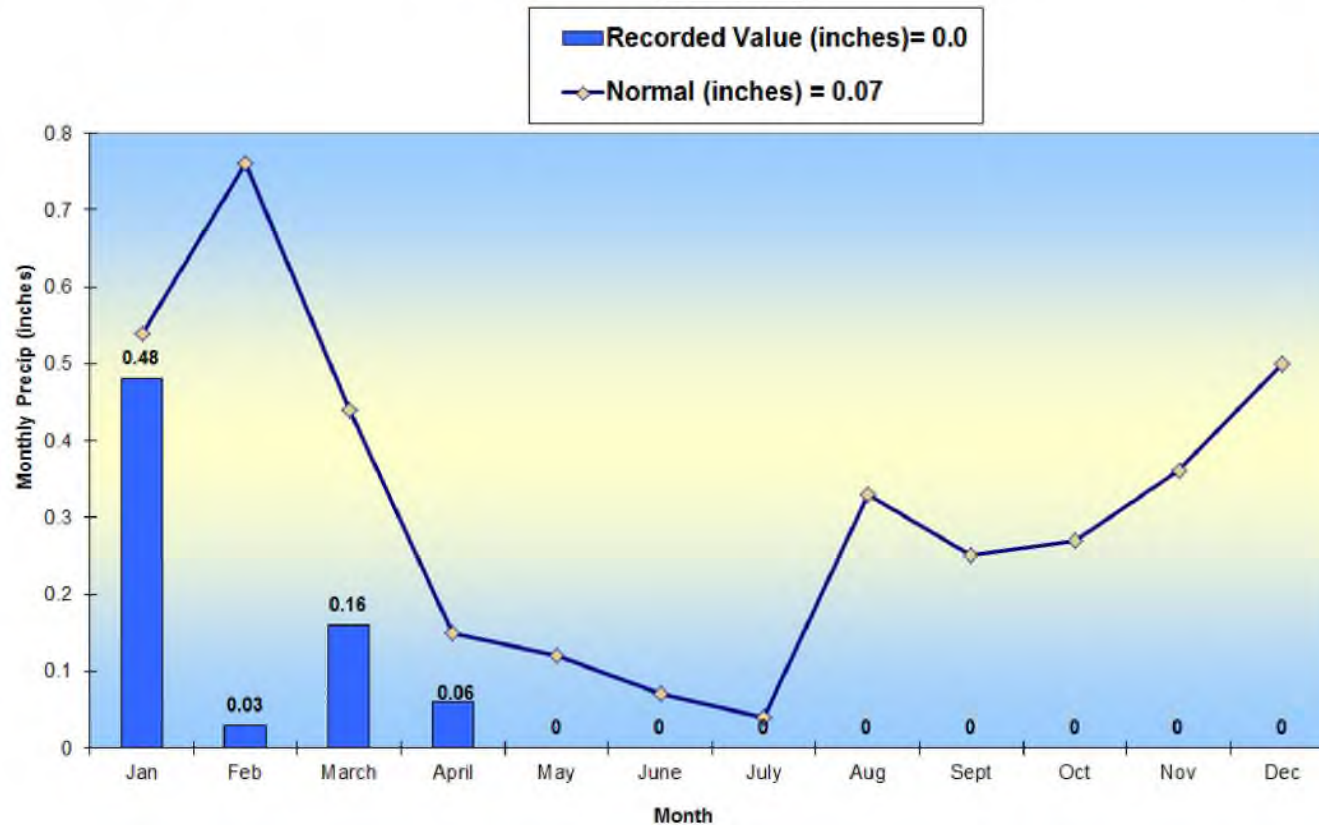


Record of Precipitation, Las Vegas, NV

As of June 30, 2013

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

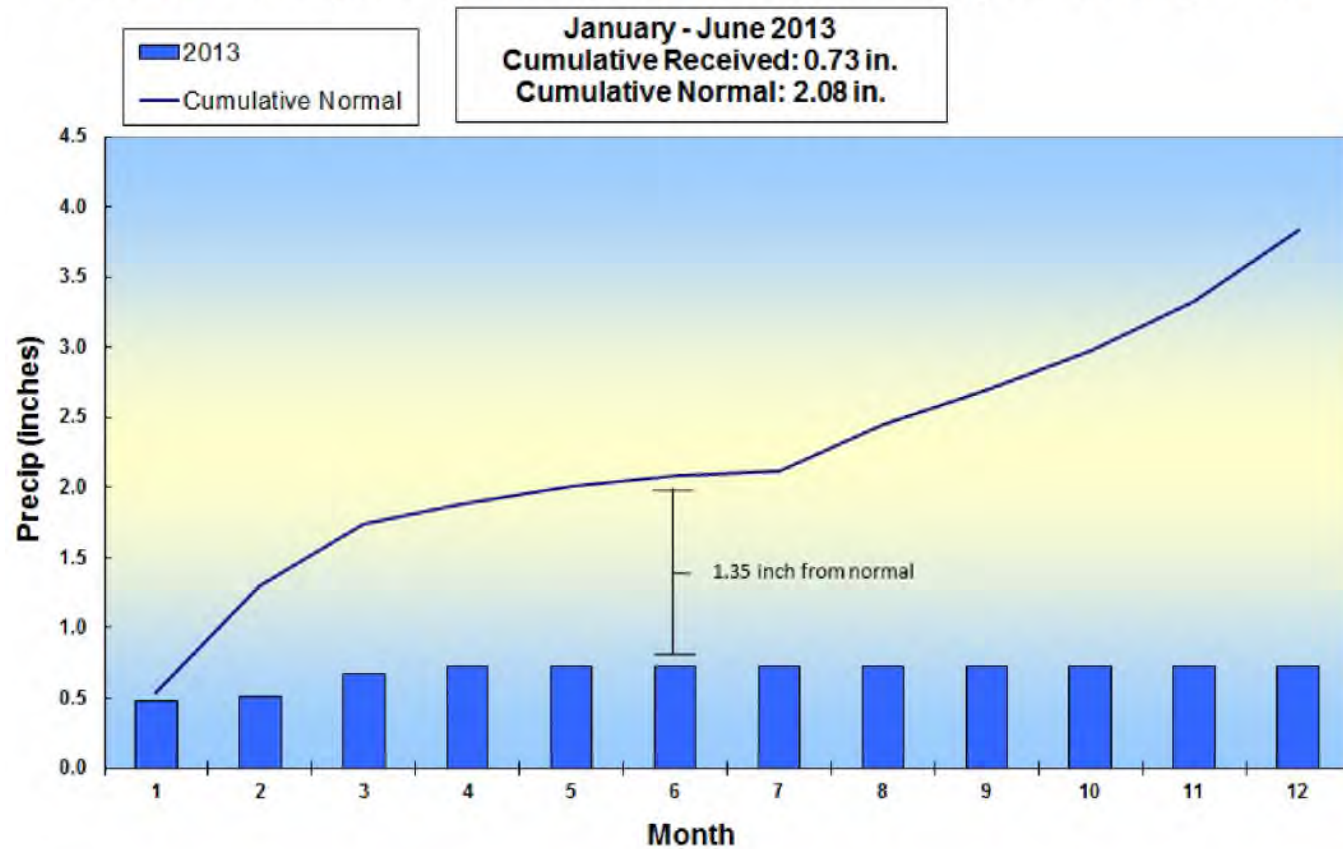
June 2013



Record of Precipitation, Las Vegas, NV

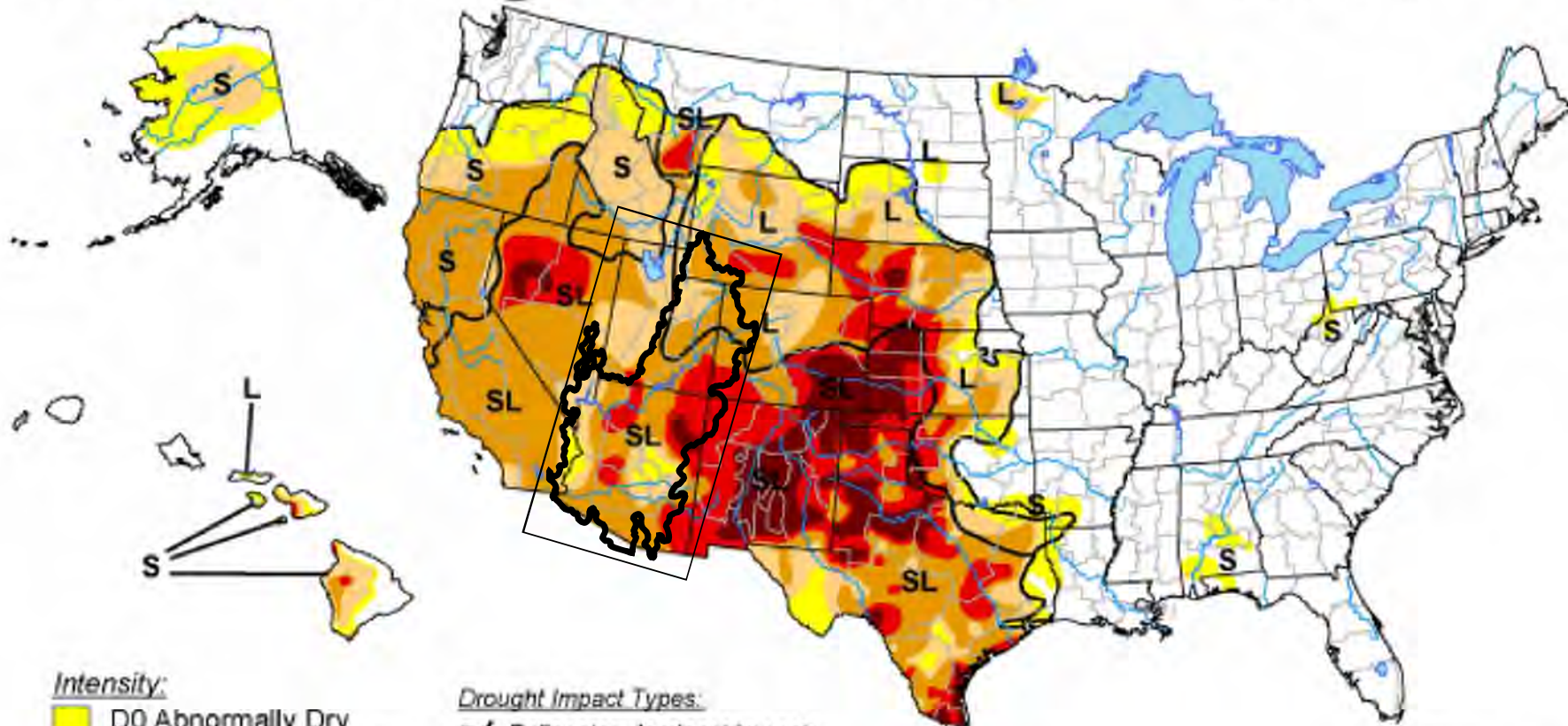
As of June 30, 2013

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



U.S. Drought Monitor


July 2, 2013
Valid 7 a.m. EDT



Intensity:

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

Drought Impact Types:

-  Delineates dominant impacts
- S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months
(e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.

<http://droughtmonitor.unl.edu/>



Released Wednesday, July 3, 2013

Author: Matthew Rosencrans, NOAA/NWS/NCEP/CPC

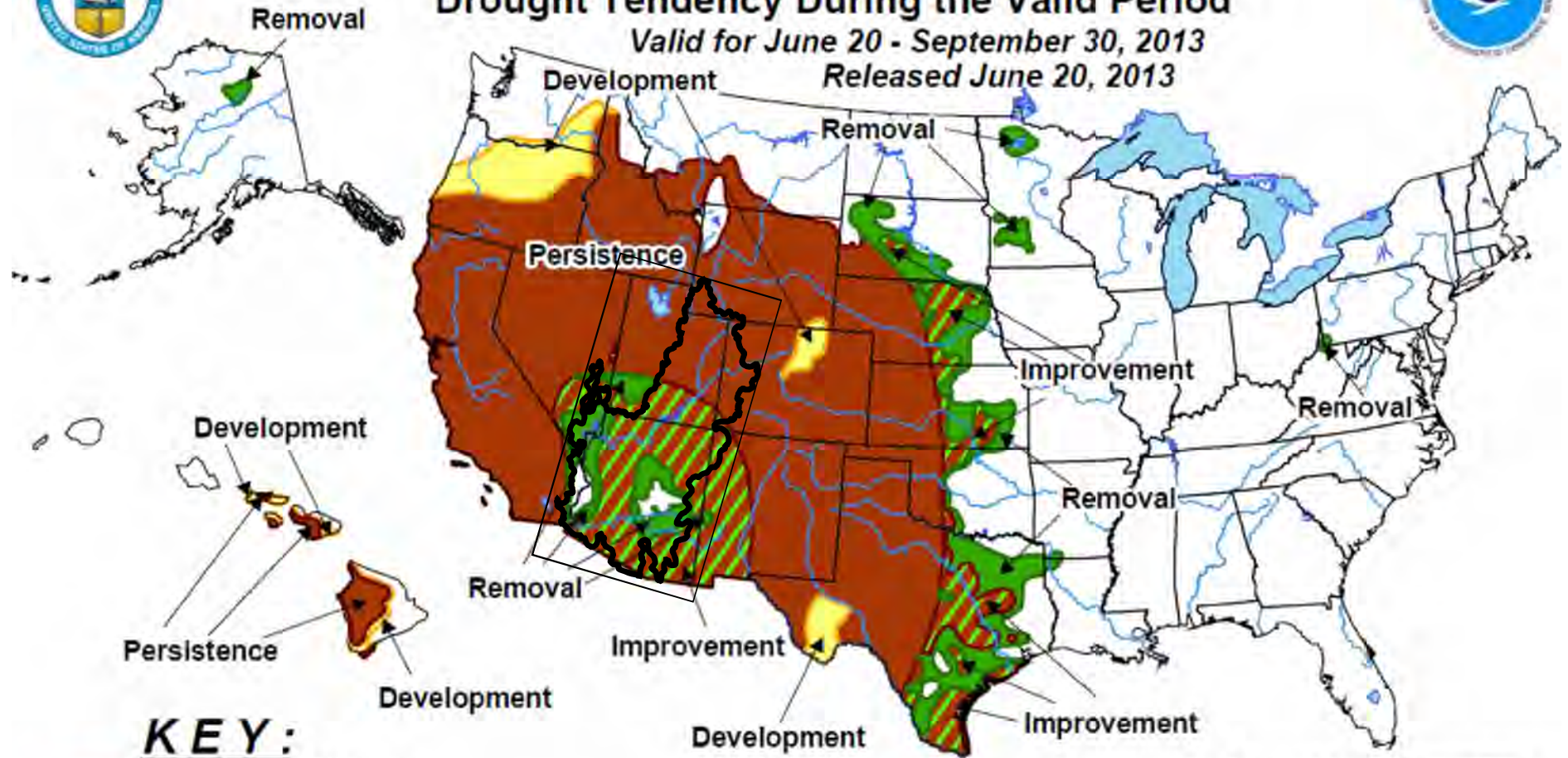


U.S. Seasonal Drought Outlook





Drought Tendency During the Valid Period




Valid for June 20 - September 30, 2013
Released June 20, 2013



KEY:

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

No Drought Posted/Predicted 

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 Green and Brown hatched 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)

Water Use in Southern Nevada



Water Use in Southern Nevada

January - May

2013*:	Consumptive Use =	81,551
	<u>CR Water Banked =</u>	<u>0</u>
		81,551
2012:	Consumptive Use =	87,987
	<u>CR Water Banked =</u>	<u>0</u>
		87,987

Difference = - 6,436 af

*Subject to final accounting.



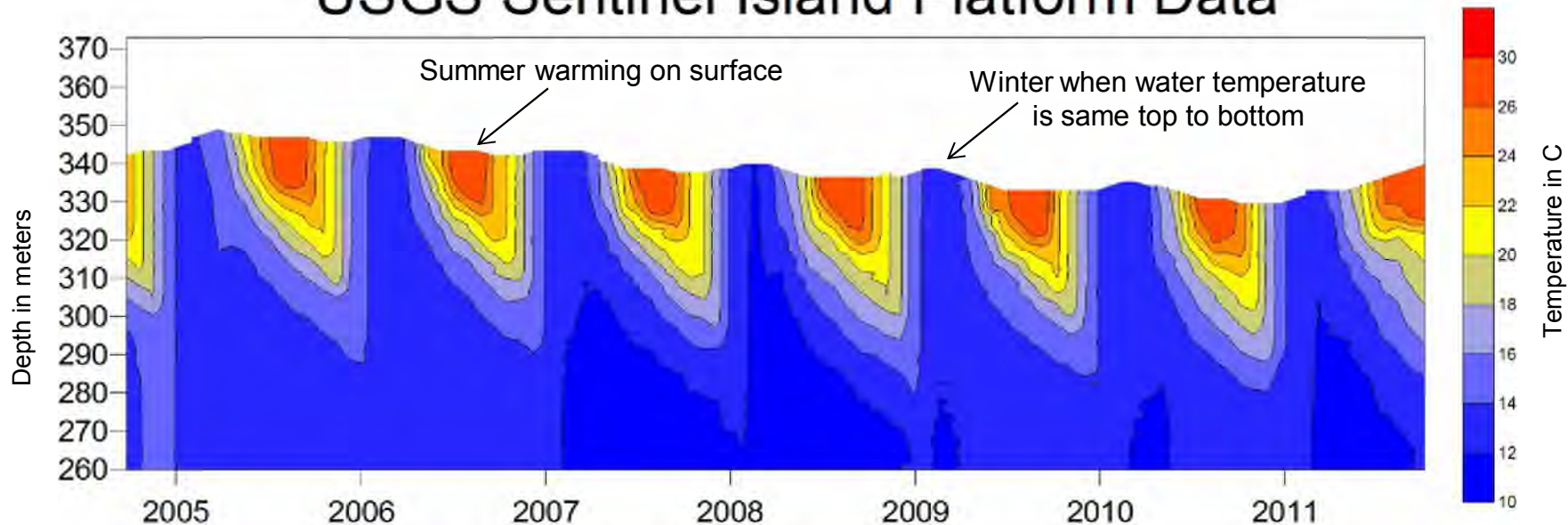
Lake Mead Temperature



Lake Mead Temperature



USGS Sentinel Island Platform Data



In the Boulder Basin of Lake Mead the temperatures have a normal surface summer peak around 30 °C and the lower layer remains around 11 °C. The lake stratification has remained similar during lowering lake elevations, but the proportion of cold water in the lower layers has decreased with elevation. A trend of the data would suggest increasing temperatures, but it is due to the volume of cold water that has decreased.

Thanks to SNWA for providing technical assistance



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