



# Colorado River Commission of Nevada

## Hydrology and Water Use Update

Warren Turkett

January 12, 2021





## Summary

### Lake Powell

- Drought conditions are causing below average inflow forecasts.
- Unregulated inflow for water year<sup>1</sup> 2021 is forecasted at 53% of average.
- Upper Basin snowpack is currently 66% of seasonal average.

### Lake Mead

- Lake Mead is forecasted to decrease almost 15 feet in elevation by the end of calendar year 2021.
- Lower Basin conservation programs have conserved roughly 3.5 million af or about 40 addition feet in Lake Mead.

### Nevada Water Supply

- Southern Nevada has 9 years of water supply banked. <sup>2</sup>
- **In 2019, Southern Nevada used 22% less than its annual allocation.**

Storage	Elevation (f)	% Capacity	Change since last year
Lake Mead	1,084.5	40%	-7.3 ft
Lake Powell	3,580.4	42%	-27.2 ft

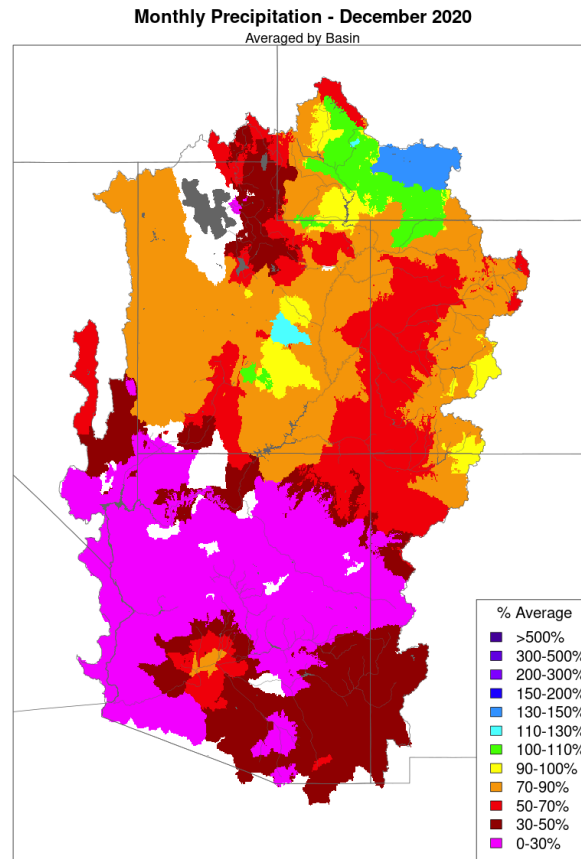
Data retrieved January 10, 2021

<sup>1</sup> Water year is defined as October through September.

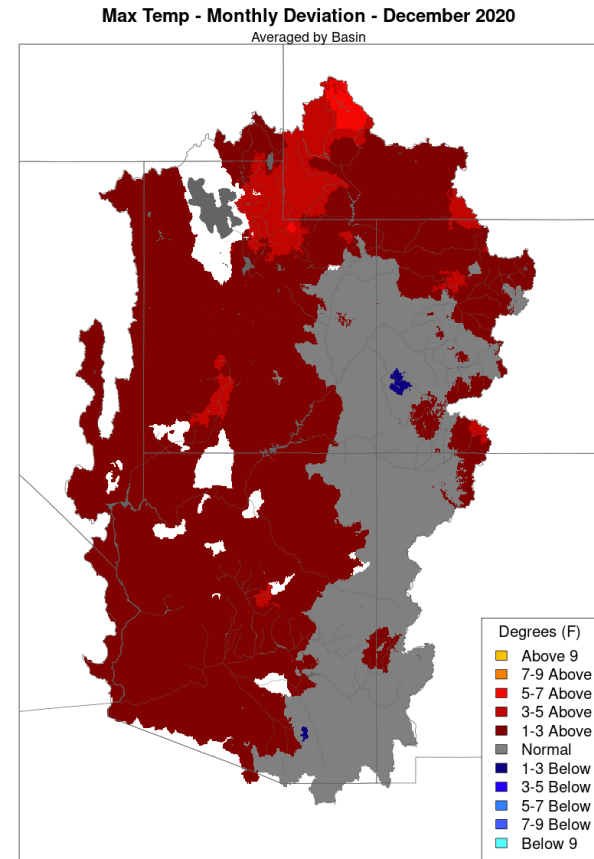
<sup>2</sup> Based on historical Southern Nevada water use.



# Precipitation and Temperature



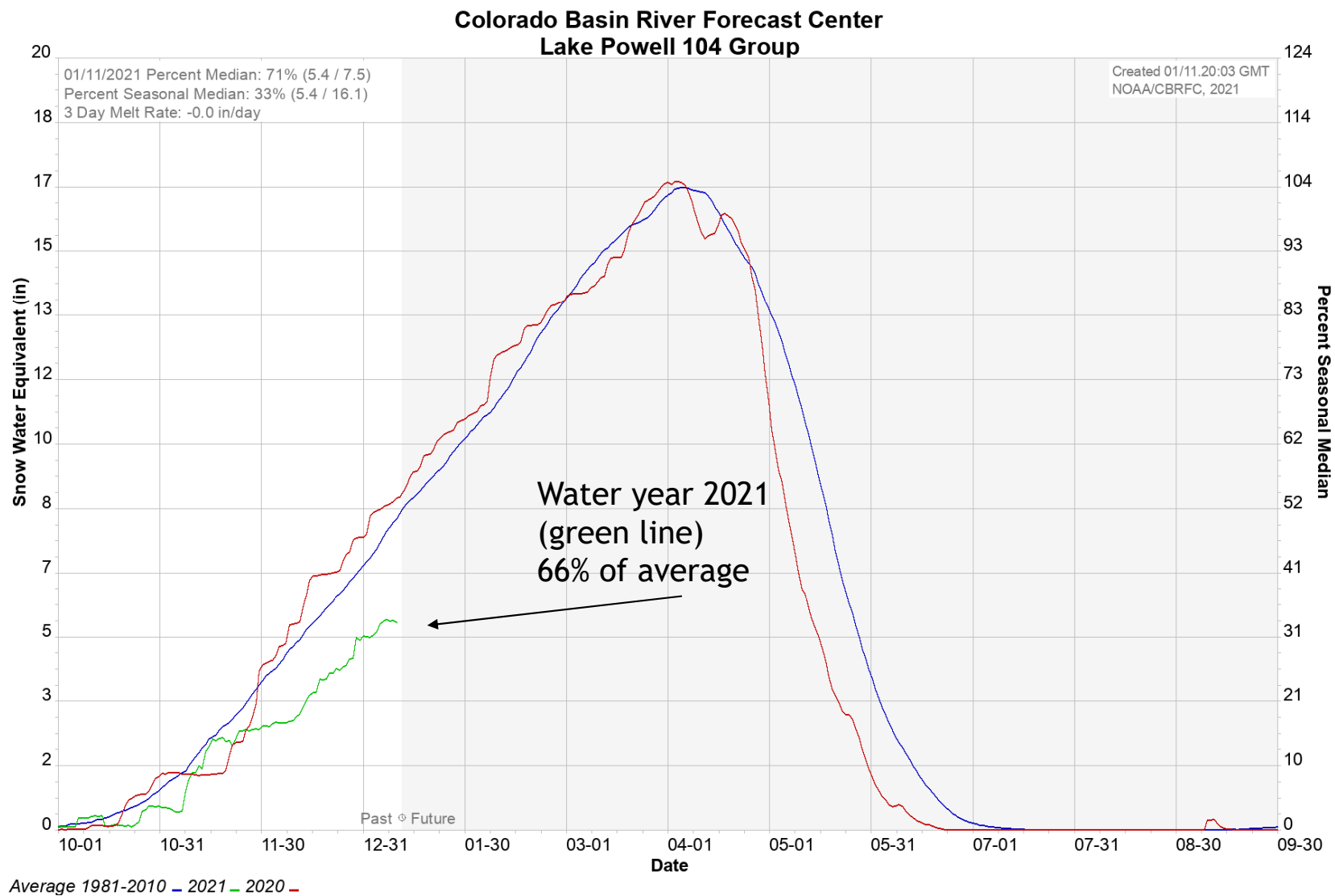
Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)



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

Above Lake Powell December precipitation: 75%

Above Lake Powell water year 2021 cumulative precipitation: 67%





## Unregulated Inflow, Current and Projected Reservoir Status

Projected unregulated inflow to Lake Powell	Acre-Feet	% Average
Water Year 2021	5,732,000	53%
April thru July 2021	3,800,000	53%

Reservoir	Current Elevation	Current Storage Acre-Feet	Current % Capacity	Projected Elevation on 1/1/2022 <sup>1</sup>
Lake Mead	1,084.5	10,336,000	40%	1,069.7
Lake Powell	3,580.4	10,095,000	42%	3,564.8

Data retrieved January 10, 2021

<sup>1</sup> Based on Reclamation's December 2020 24 Month Study Most Probable Inflow.





## Water Use In Southern Nevada

### Southern Nevada Water Use

### 2019 Actual Use in Acre-Feet

Nevada Annual Allocation	300,000
Diversion	472,314
Return Flows	238,318
Consumptive Use	233,996
Unused Allocation Available for Banking	66,004 (22%)

### Southern Nevada Water Use

### Diversions

### Return Flows

### Consumptive Use

January-November 2020	452,831	204,903	247,928
-----------------------	---------	---------	---------

### Banked Water (through end of 2019)

### Acre-Feet

Ground Water Recharge in So. Nevada	358,315
Banked in Lake Mead	785,913
Banked in California and Arizona	944,071
Total	2,088,299