

Colorado River Commission of Nevada

Hydrology and Water Use Update

Warren Turkett

February 11, 2020



Summary

Lake Powell

- Water Year 2020 snowpack accumulation is currently at seasonal average.
- Below average precipitation from June to September 2019 has caused dry soil conditions in the Upper Basin.
- Water Year 2020 unregulated inflow is forecasted to be 80% of average.

Lake Mead

- In calendar year 2020, Nevada will be required to have an Extraordinary ICS contribution of 8,000 acre feet pursuant to the DCP operation agreement.
- Lake Mead is projected to decrease about 10 feet by end of this calendar year.

Nevada Water Supply

- Southern Nevada has 7 years of water supply banked. ¹
- **In 2018, Southern Nevada used 19% less than its annual allocation.**

Storage	Elevation (f)	% Capacity	Change since last year
Lake Mead	1,094.9	43%	9.1 ft
Lake Powell	3,604.9	50%	29.9 ft

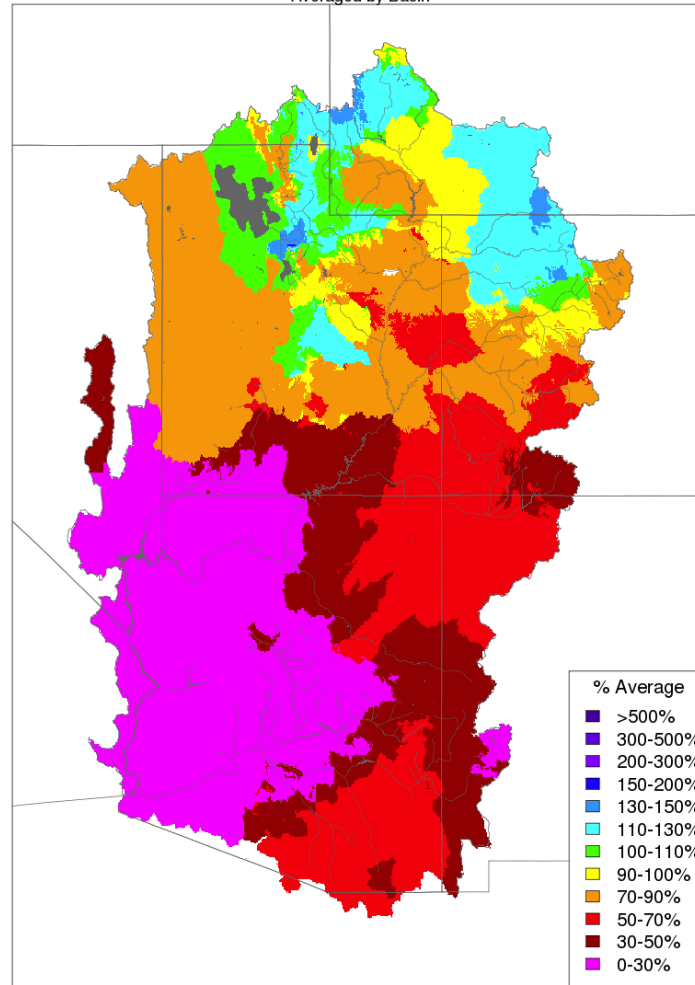
Data retrieved February 7, 2020

¹ Based on historical Southern Nevada water use.

Precipitation and Temperature

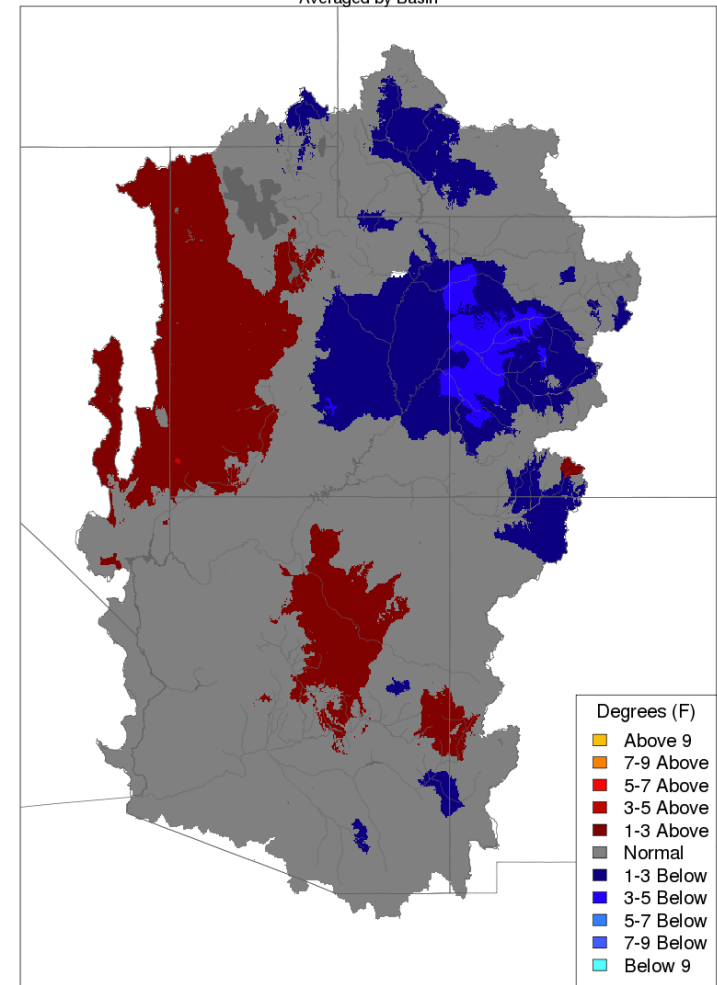


Monthly Precipitation - January 2020
Averaged by Basin



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrcf.noaa.gov

Max Temp - Monthly Deviation - January 2020
Averaged by Basin

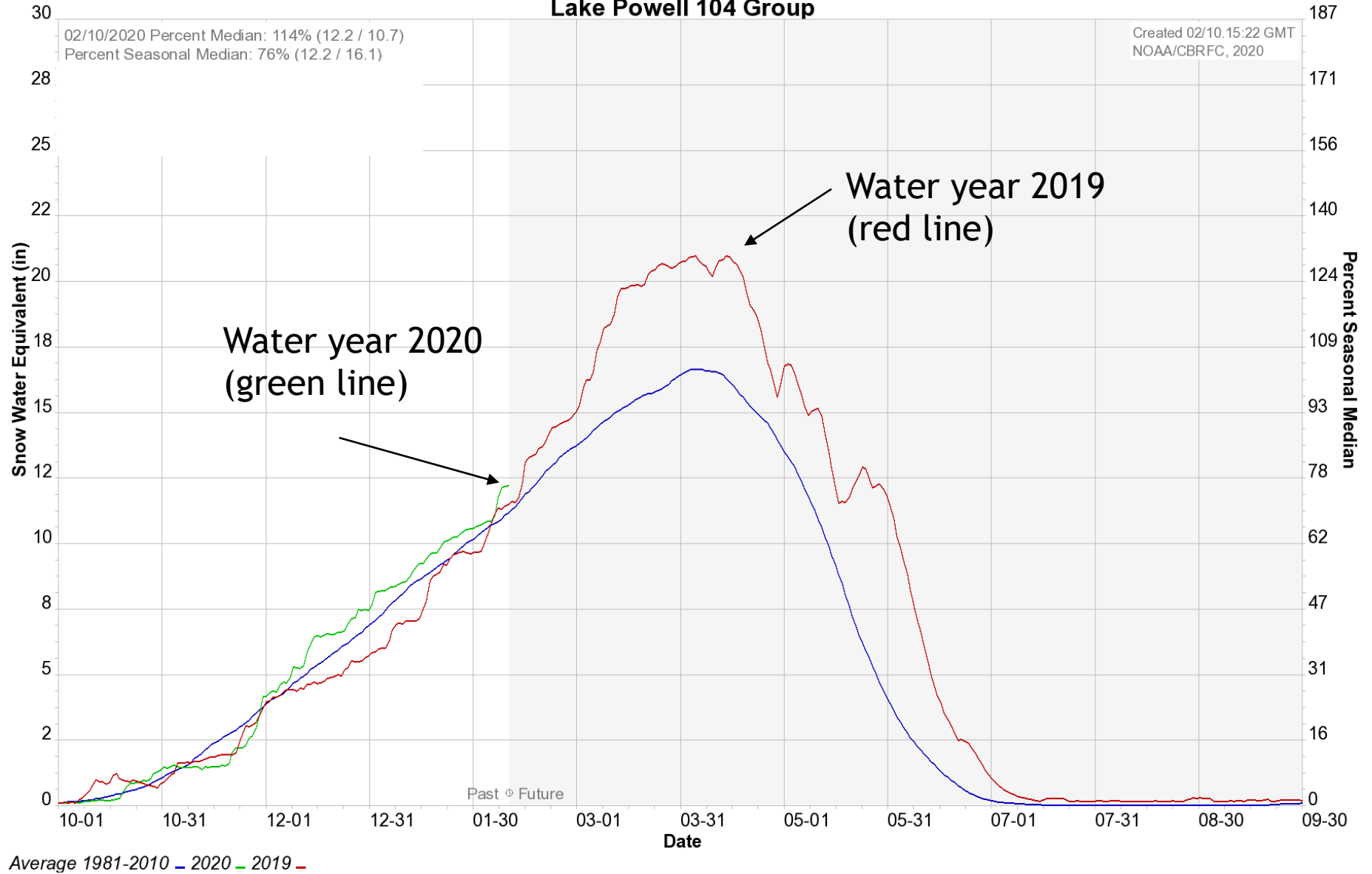


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrcf.noaa.gov

Above Lake Powell December precipitation: 89%
Above Lake Powell water year average precipitation: 90%

Upper Basin Snowpack Accumulation

Colorado Basin River Forecast Center
Lake Powell 104 Group



Unregulated Inflow, Current and Projected Reservoir Status

Projected unregulated inflow to Lake Powell	Acre-Feet	% Average
Water Year 2020	8,644,000	80%*
April thru July 2020	5,700,000	80%*

* 2020 forecast reduced due to below average precipitation and dry soil conditions.

Reservoir	Current Elevation	Current Storage Acre-Feet	Current % Capacity	Projected Elevation on 1/1/2021 ¹
Lake Mead	1,094.9	11,280,000	43%	1,084.9
Lake Powell	3,604.9	12,226,000	50%	3,613.8

Data retrieved February 7, 2020

¹ Based on Reclamation's January 2020 24 Month Study Most Probable Inflow.

Water Use In Southern Nevada

Southern Nevada Water Use

2018 Actual Use in Acre-Feet

Nevada Annual Allocation	300,000
Diversion	479,279
Return Flows	235,176
Consumptive Use	244,103
Unused Allocation Available for Banking	55,897 (19%)

Southern Nevada Water Use

Diversions

Return Flows

Consumptive Use

January-December 2019	472,218	238,257	233,961
-----------------------	---------	---------	---------

Banked Water (through end of 2018)

Acre-Feet

Ground Water Recharge in So. Nevada	358,045
Banked in Lake Mead	700,448
Banked in California and Arizona	943,821
Total	2,002,314

2020 Nevada DCP Contribution Determination

- Reclamation uses the August 24 Month Study to forecast lake elevations for the upcoming January 1, to determine water operations for the upcoming year.
- The Drought Contingency Plan (DCP) requires a contribution for Nevada and Arizona if the projected elevation falls below 1,090 feet.
- The 2019 August 24 Month Study projected Lake Mead to be at an elevation of 1,089.40 feet on January 1, 2020, or below the threshold of 1,090 feet.
- However, on January 1, 2020 the actual elevation in Lake Mead was 1,090.64 feet.
- Under such a scenario for Nevada, the Lower Basin DCP provides that if the actual elevation at Lake Mead is above 1,090 feet on January 1, then the required DCP contribution contemplated in August, will be treated as Intentional Created Surplus (ICS), rather than a DCP contribution and remain available.
- Consequently, Nevada will not be required to have a DCP contribution of 8,000 acre feet, but have the 8,000 acre feet treated as regular Intentional Created Surplus in calendar year 2020.