



**RECLAMATION**  
*Managing Water in the West*

# Colorado River System Overview and Current Status

Salton Sea Summit

UC Riverside/Palm Desert Campus

October 17, 2019



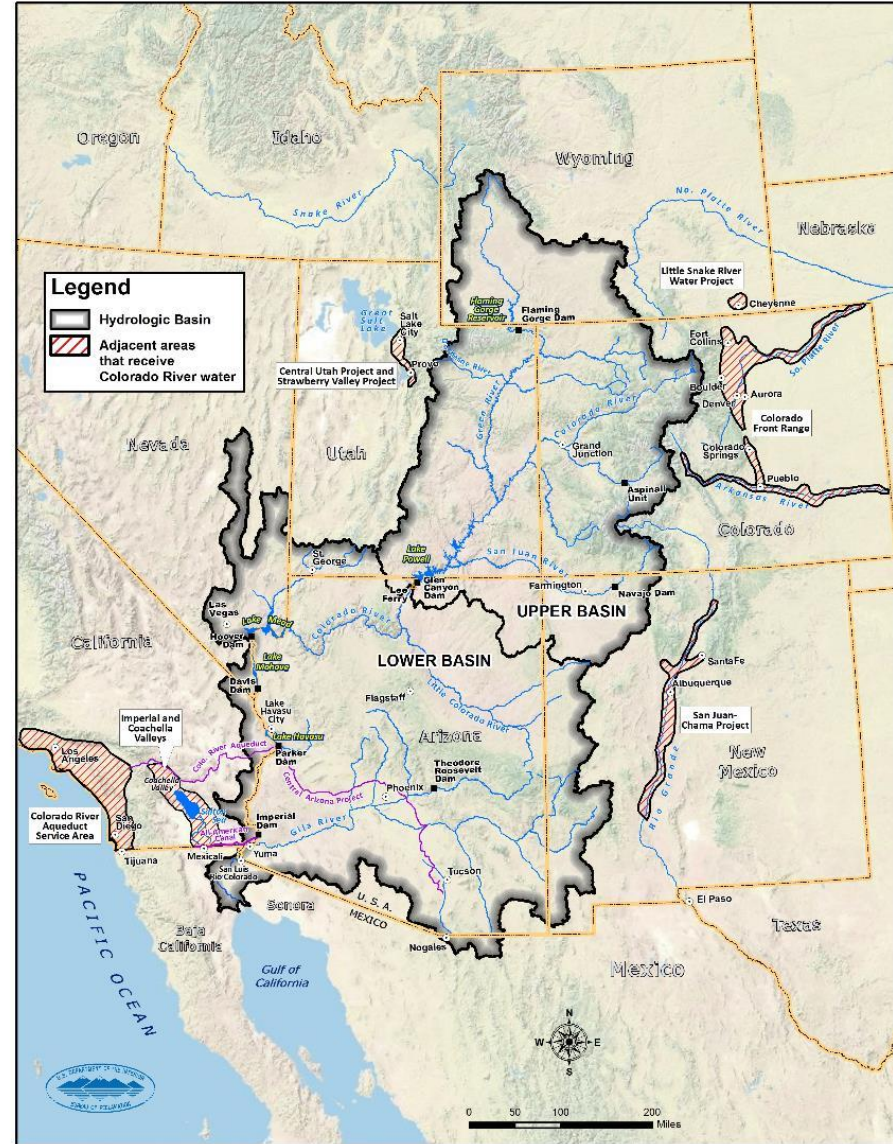
# Presentation Outline

- Overview of the Colorado River Basin
- Colorado River Drought
- Drought Contingency Plans
- Projected Future Conditions

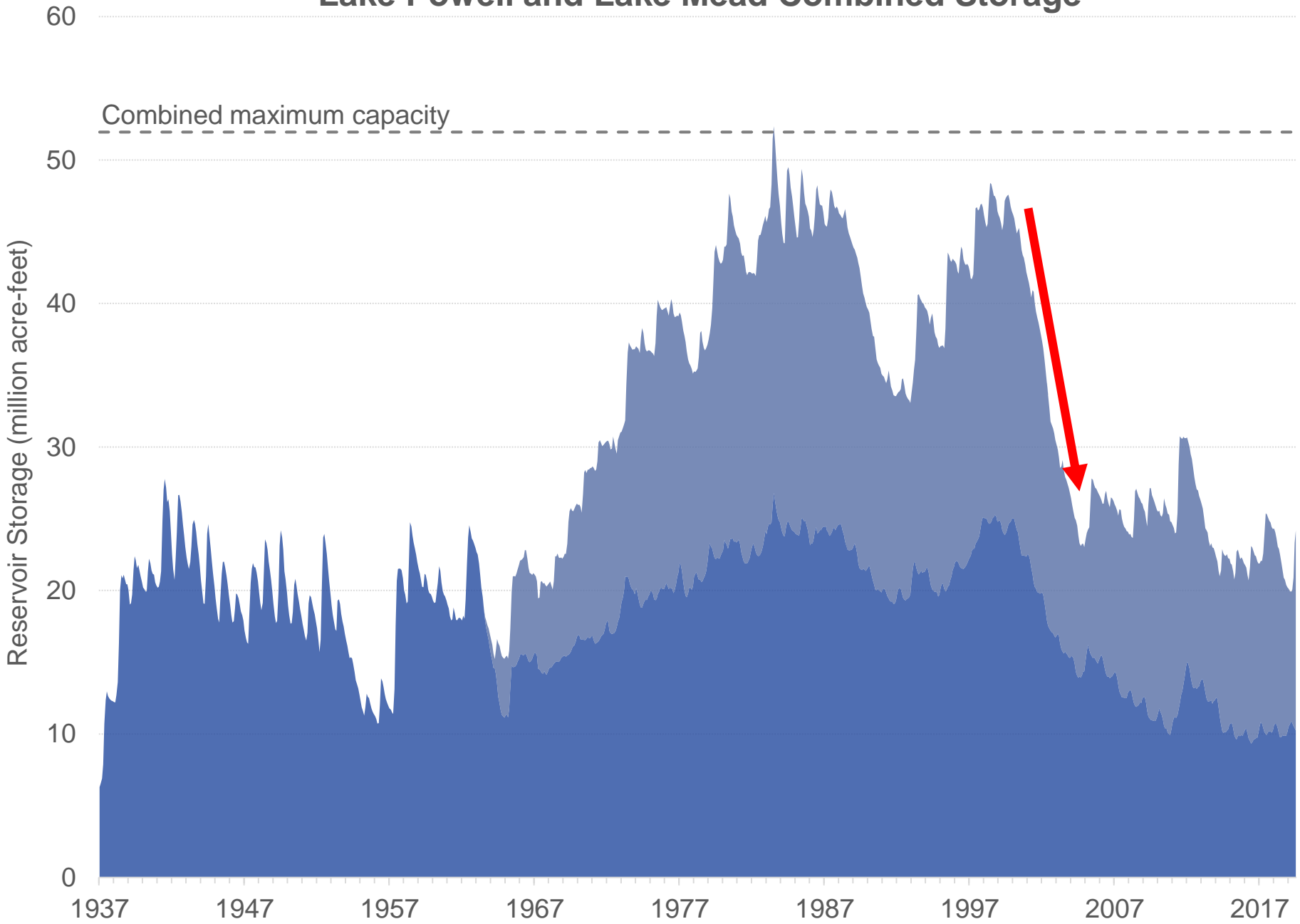


# Overview of the Colorado River System

- 16.5 million acre-feet (maf) allocated annually
  - 7.5 maf each to Upper and Lower Basins and 1.5 maf to Mexico
- 16 maf average annual “natural flow” (from historical record)
  - 14.8 maf in the Upper Basin and 1.3 maf in the Lower Basin
- Year-to-year inflows are highly variable
- 60 maf of storage (about 4 times the annual average inflow)
- Operations and water deliveries governed by the “Law of the River”
  - Secretary of the Interior is the Water Master in the Lower Basin



# Lake Powell and Lake Mead Combined Storage



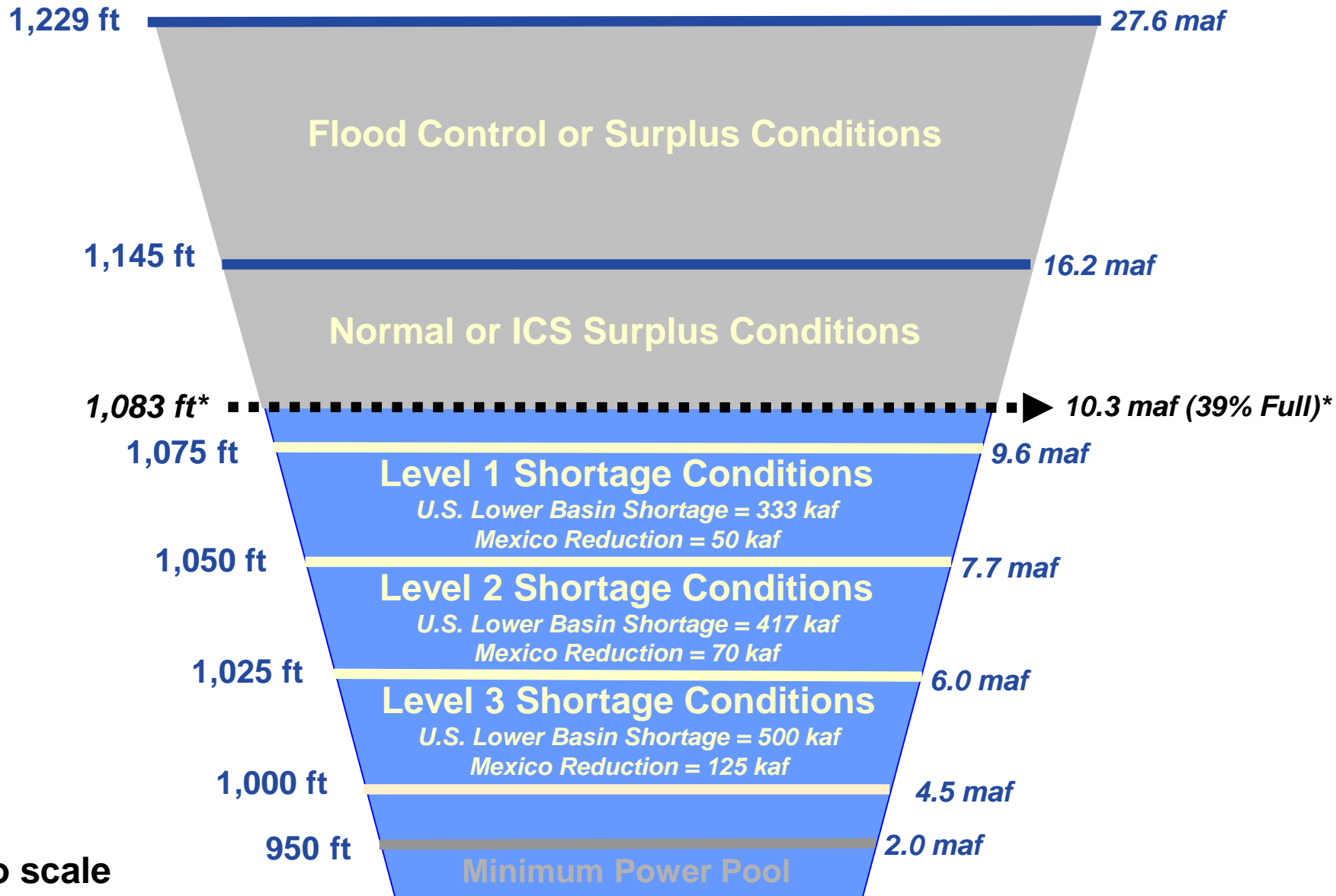


# Overview of the 2007 Interim Guidelines



- In place for an interim period from 2007 through 2026
- Provide for coordinated operations of Lake Powell and Lake Mead at the full range of reservoir conditions
- Establish the Intentionally Created Surplus (ICS) mechanism
- Establish guidelines for determining a shortage condition in the Lower Basin
- Does not include provisions for Mexico
  - Operational agreements with Mexico are established through “Minutes” by the International Boundary and Water Commission (i.e., Minute 323)

# Lake Mead – Key Elevations<sup>1,2</sup>



Not to scale

\*As of October 15, 2019

<sup>1</sup> U.S. Lower Basin shortage volumes based on the 2007 Interim Guidelines (in place 2007-2026).

<sup>2</sup> Mexico reductions based on Minute 323 (in place 2017-2026).





Lake Mead near Hoover Dam in 2000

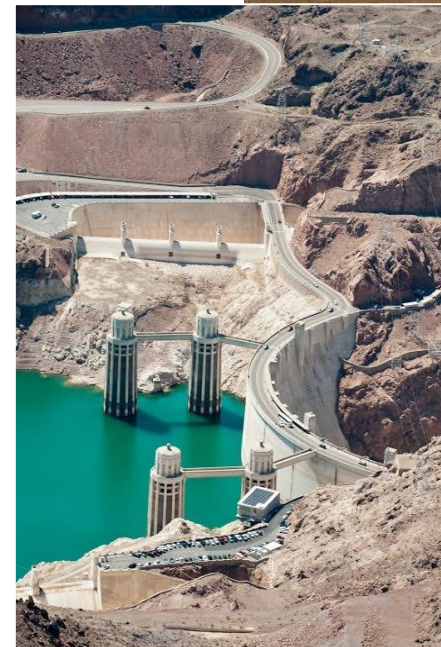
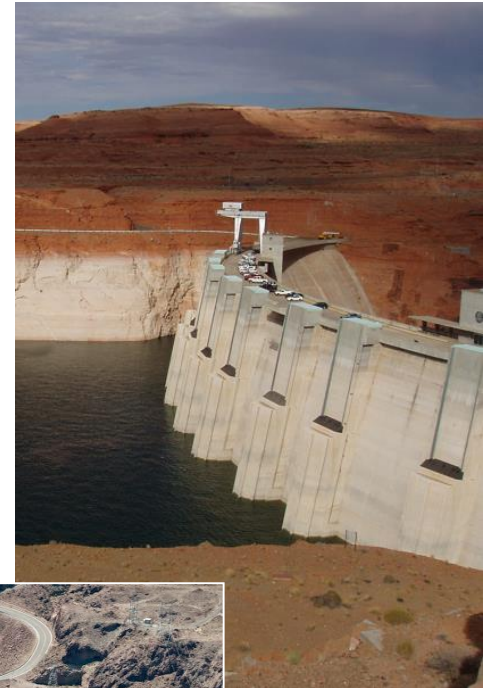


Lake Mead near Hoover Dam in 2016



# Drought Contingency Planning

- Actions are in addition to the 2007 Interim Guidelines
- Goals:
  - Reduce risk of Lake Mead and Lake Powell reaching critically low elevations (1,020 feet and 3,490/3,525 feet, respectively)
- Key Elements:
  - Additional contributions of water by Lower Basin States
  - Additional flexibility for water storage and recovery to incentivize conservation
  - Drought operations and demand management in Upper Basin



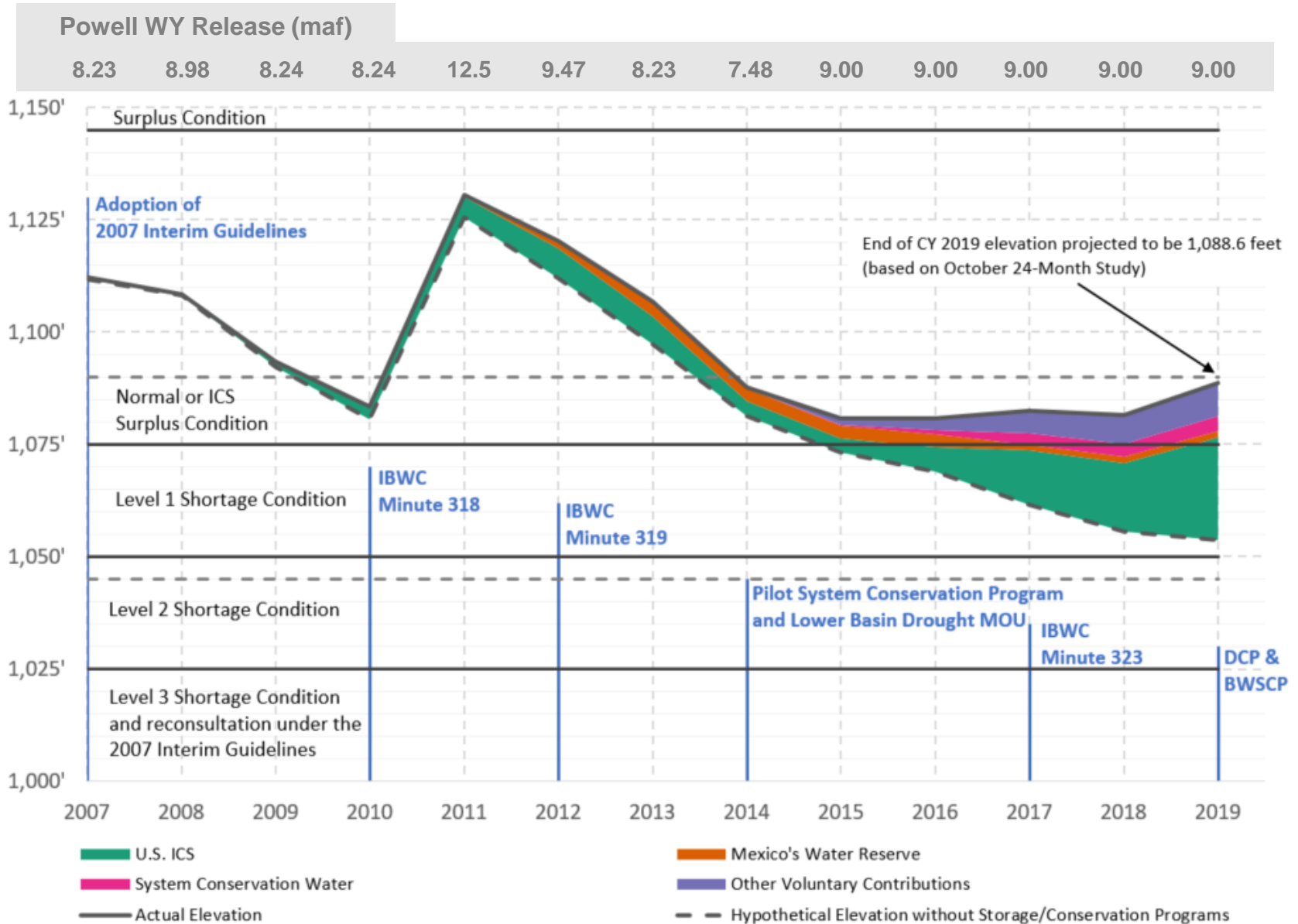


## Total Lower Basin Volumes (in KAF) 2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan & Binational Water Scarcity Contingency Plan

Lake Mead Elevation (ft msl)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Contributions			Binational Water Scarcity Contingency Plan Savings	Combined Volumes by Country <i>US: (2007 Interim Guidelines Shortages + DCP Contributions)</i> <i>Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)</i>					Total Combined Volumes
	AZ	NV	Mexico	<b>Lower Basin States + Mexico</b>	AZ	NV	CA	Mexico	AZ Total	NV Total	CA Total	Lower Basin States Total	Mexico Total	<b>Lower Basin States + Mexico</b>
1,090 - >1,075	0	0	0	<b>0</b>	192	8	0	41	192	8	0	200	41	<b>241</b>
1,075 - >1050	320	13	50	<b>383</b>	192	8	0	30	512	21	0	533	80	<b>613</b>
1,050 - >1,045	400	17	70	<b>487</b>	192	8	0	34	592	25	0	617	104	<b>721</b>
1,045 - >1,040	400	17	70	<b>487</b>	240	10	200	76	640	27	200	867	146	<b>1,013</b>
1,040 - >1,035	400	17	70	<b>487</b>	240	10	250	84	640	27	250	917	154	<b>1,071</b>
1,035 - >1,030	400	17	70	<b>487</b>	240	10	300	92	640	27	300	967	162	<b>1,129</b>
1,030 - 1,025	400	17	70	<b>487</b>	240	10	350	101	640	27	350	1,017	171	<b>1,188</b>
<1,025	480	20	125	<b>625</b>	240	10	350	150	720	30	350	1,100	275	<b>1,375</b>

The US will work to create or conserve 100,000 af or more of Colorado River system water on an annual basis to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs. All actions taken by the United States shall be subject to applicable federal law, including availability of appropriations.

# Lake Mead Storage and Conservation

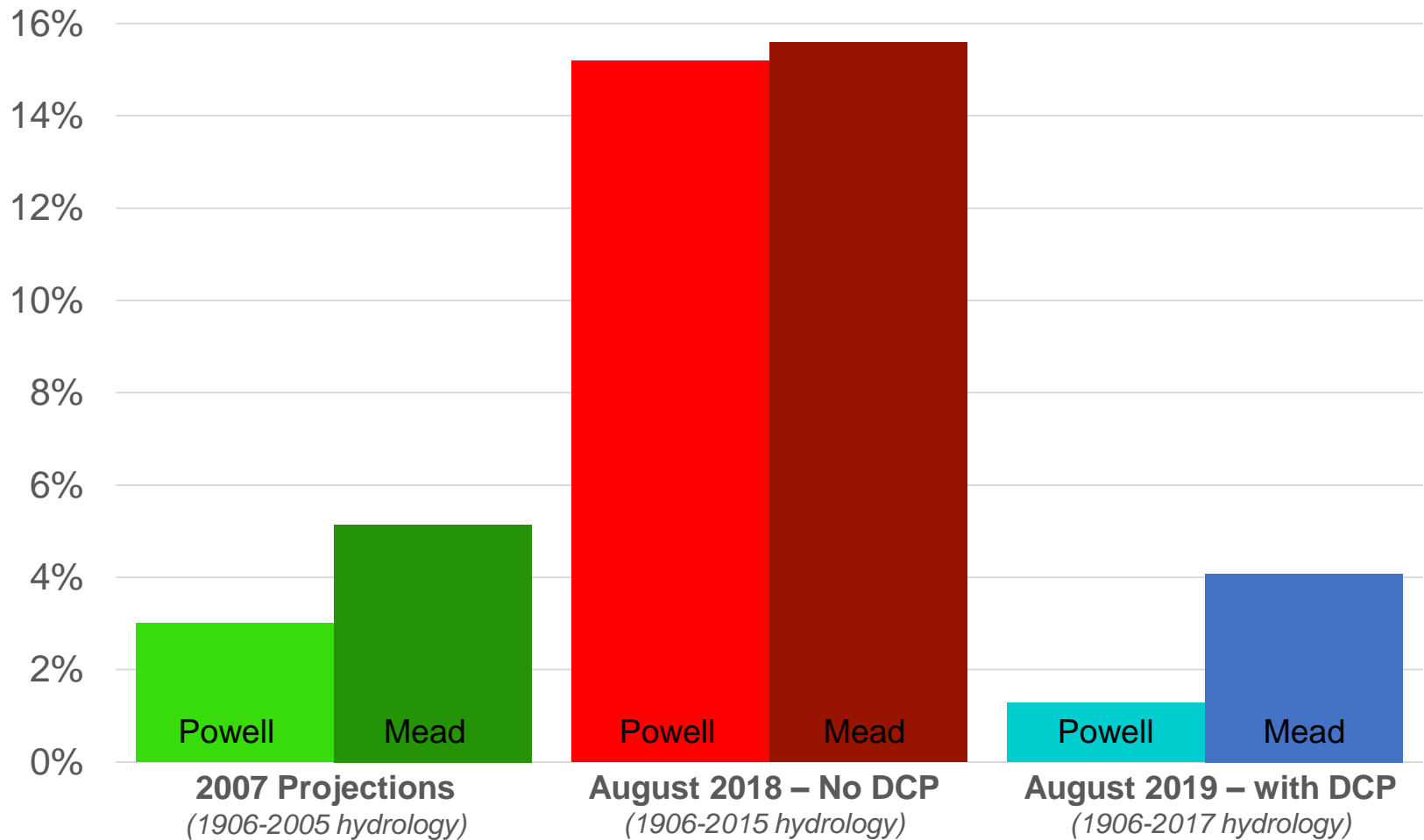


End of calendar year 2019 balances of U.S. ICS and Mexico's Water Reserve, system conservation water, and other voluntary contributions to Lake Mead are provisional and subject to change.



# Average Risk Through 2026

Average Risk of Reaching Critical Elevations Through 2026  
(Lake Powell < 3,525' & Lake Mead < 1,025')





For further information:

[www.usbr.gov/lc/riverops.html](http://www.usbr.gov/lc/riverops.html)

[www.usbr.gov/dcp](http://www.usbr.gov/dcp)