COLORADO RIVER BASIN UPDATE AND STATUS

Presented to:

Drought Interagency Coordinating Group

June 24, 2020

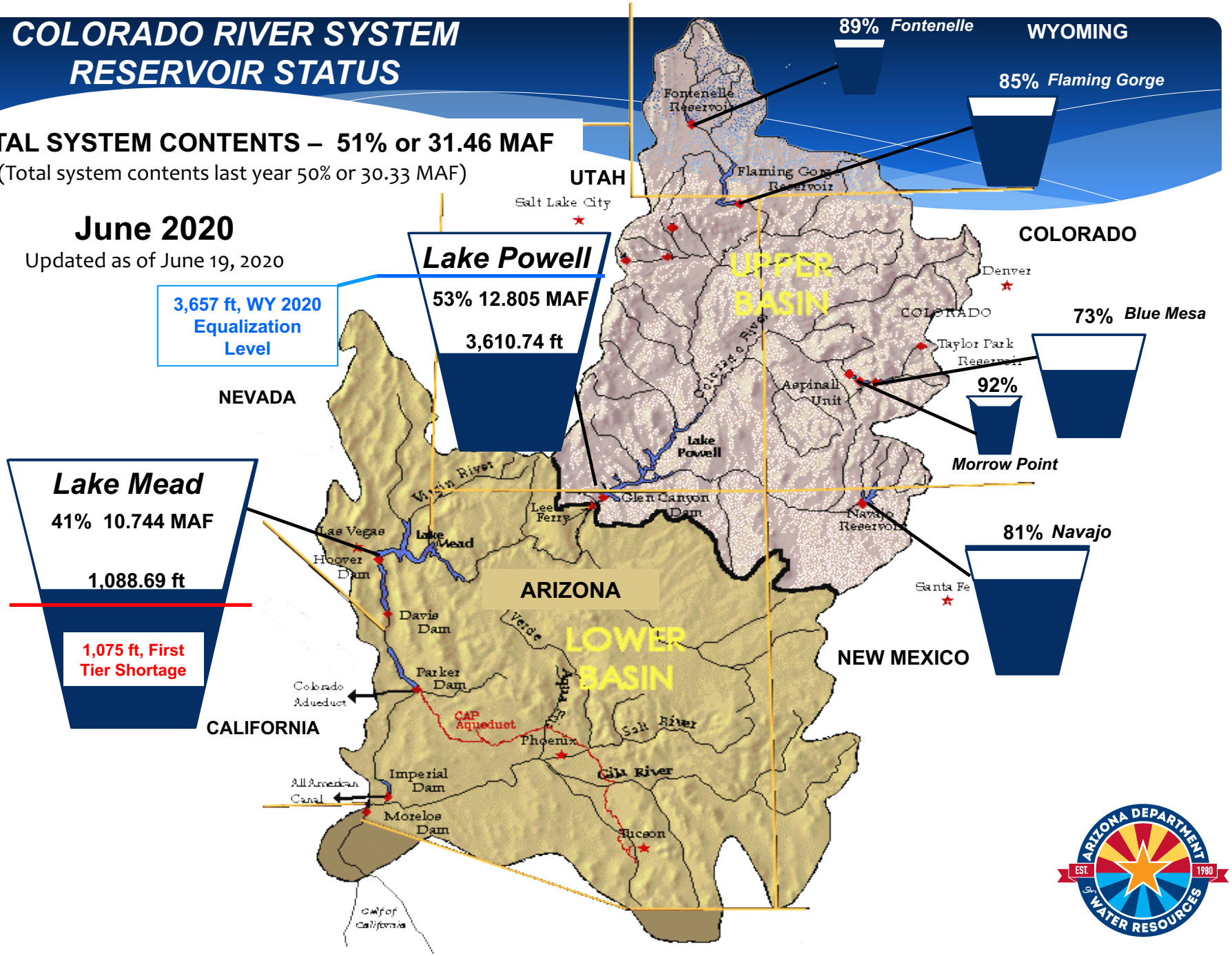
COLORADO RIVER SYSTEM RESERVOIR STATUS

TOTAL SYSTEM CONTENTS – 51% or 31.46 MAF

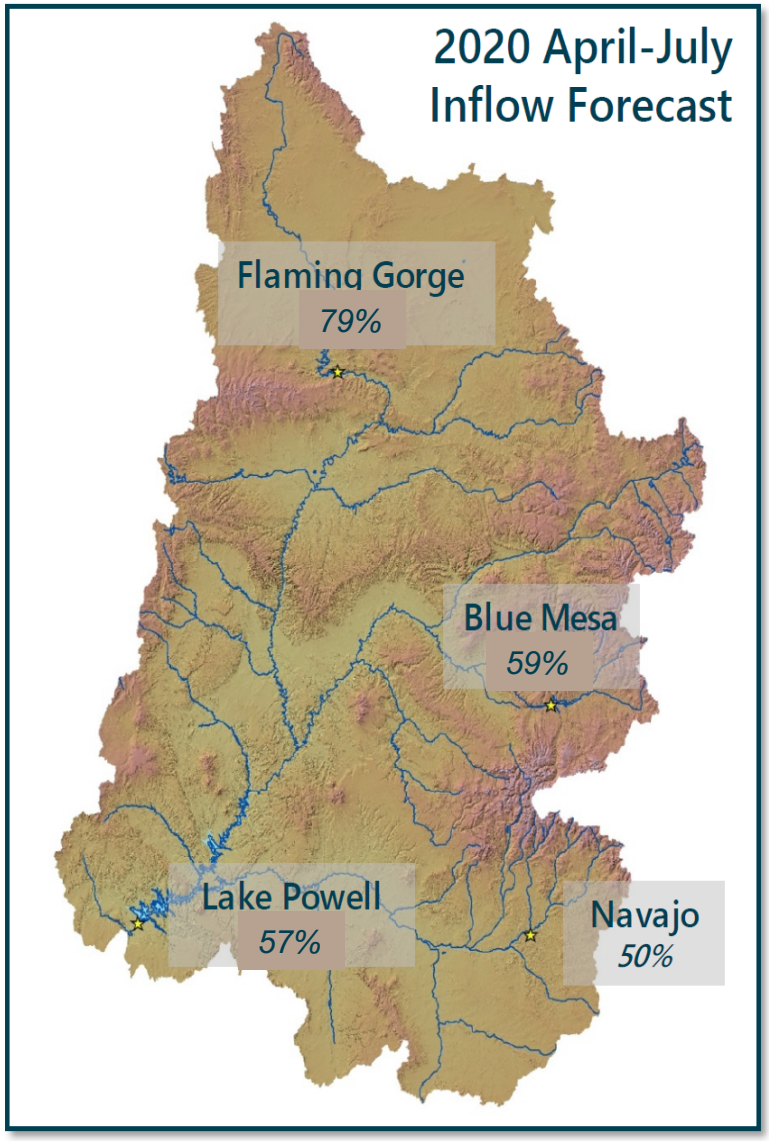
(Total system contents last year 50% or 30.33 MAF)

June 2020

Updated as of June 19, 2020



CBRFC Unregulated Inflow Forecast
Dated June 16, 2020

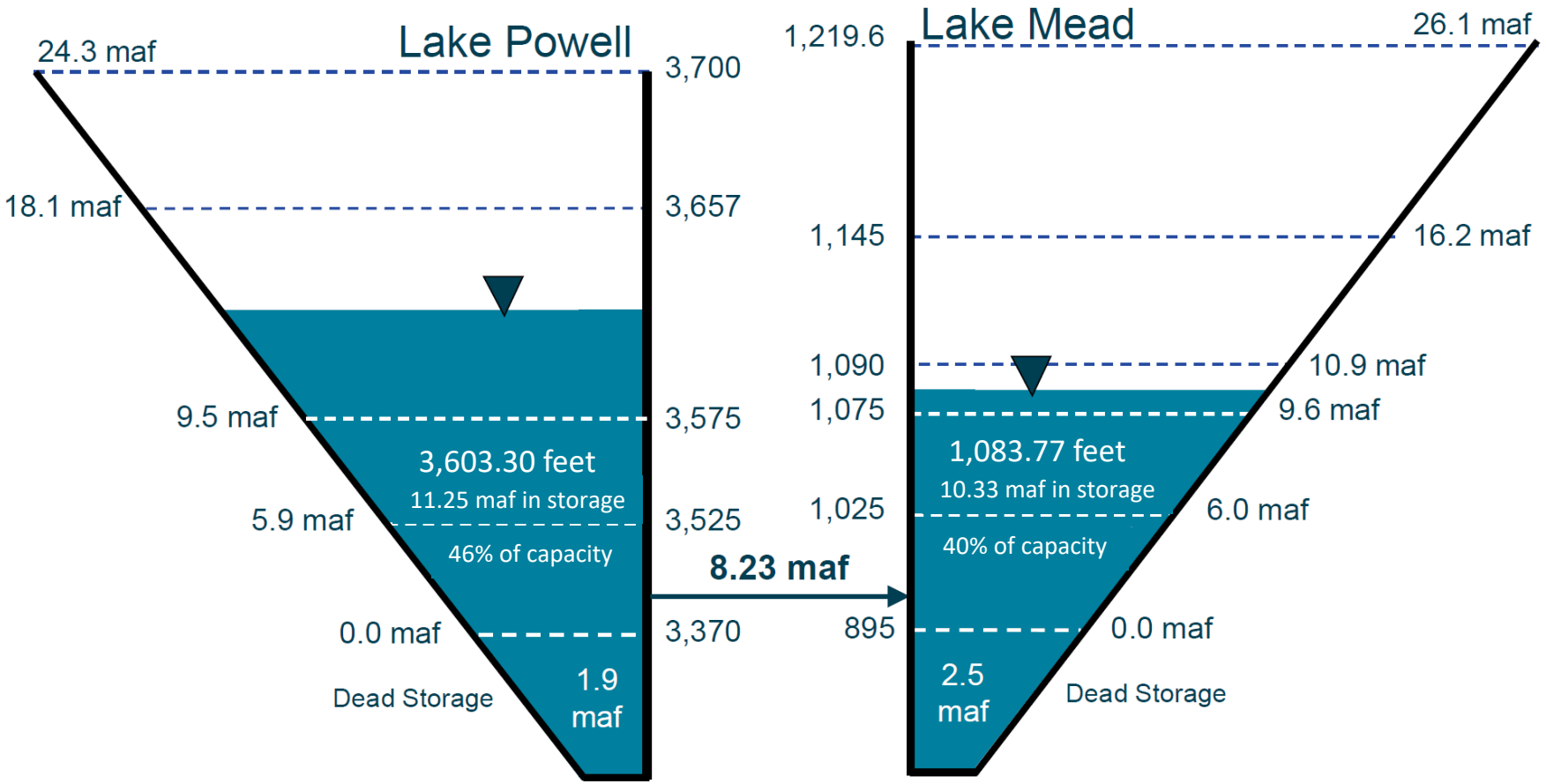


Powell Unregulated Inflow Forecast		
Month/Period	Inflow (kaf)	Percent of Average
Apr 2020 *(Observed)*	475	45
May 2020 ***(Observed)***	1,541	66
Jun 2020	1,650	62
Jul 2020	434	40
2020 Apr-Jul	4,100	57
WY 2020	6,762	62

End of Water Year 2020 Projections

June 2020 24-Month Study Most Probable Inflow Scenario[1]

Projected Lake Powell Unregulated Inflow = 6.762 maf (62% of average)



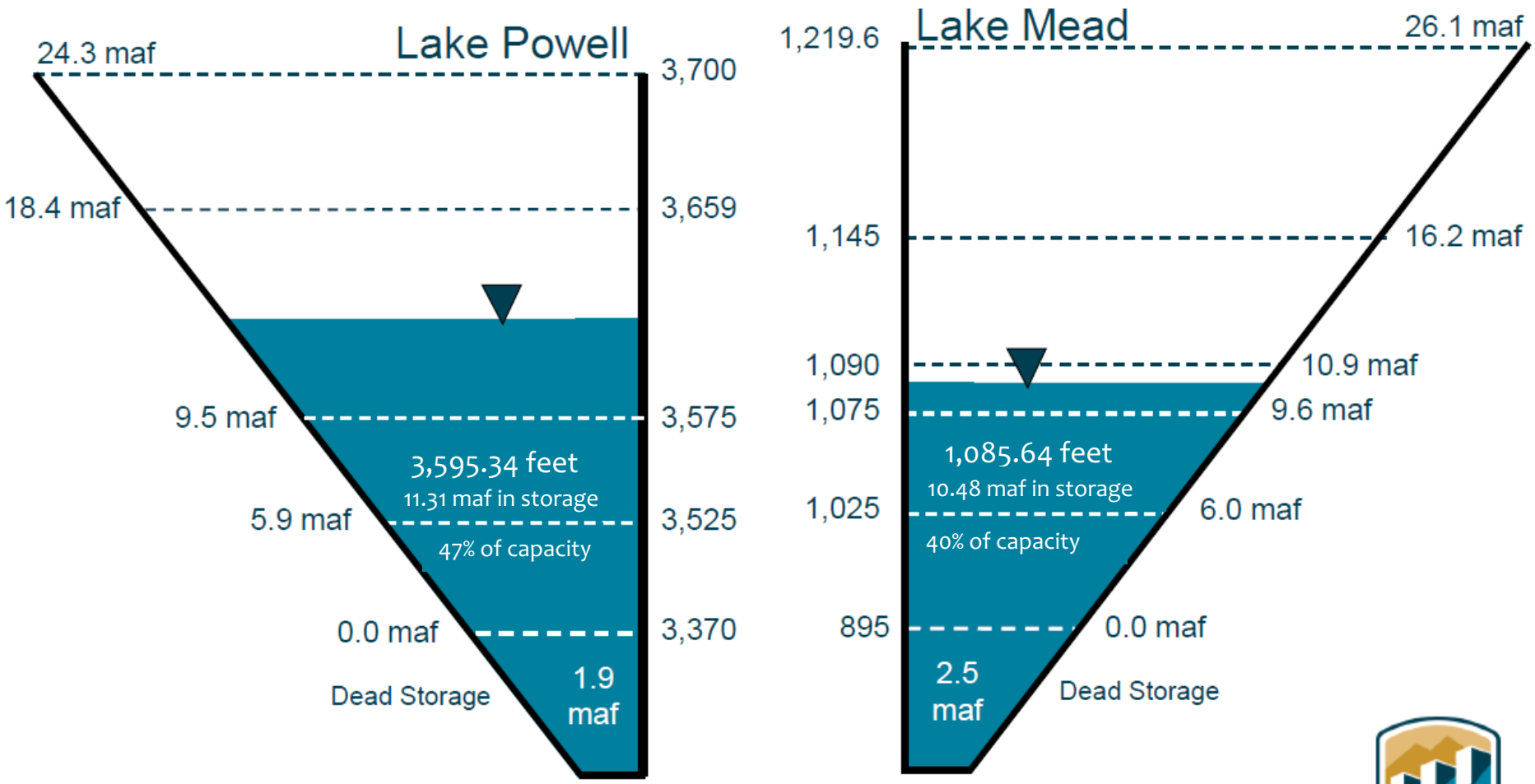
Not to Scale

[1]*WY 2020 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 6/3/20.*

End of Calendar Year 2020 Projections

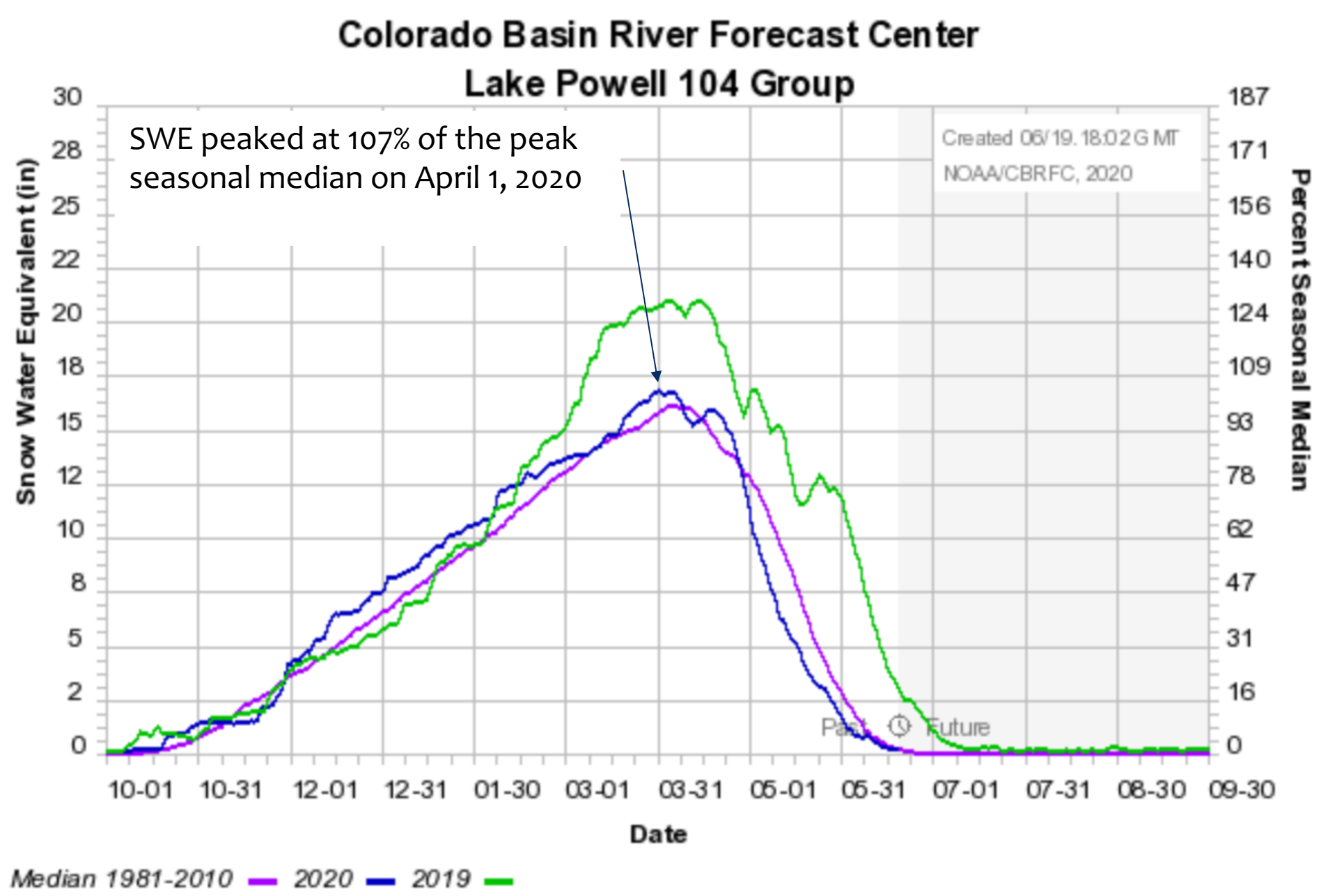
June 2020 24-Month Study Most Probable Inflow Scenario[1]

Based on a Lake Powell release of 8.23 maf in WY 2020 & 9.00 maf in WY 2021



Not to Scale

[1]*WY 2020 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 6/3/20.*


Colorado Basin River Forecast Center
Lake Powell 104 Group
SWE peaked at 107% of the peak seasonal median on April 1, 2020
Created 06/19.18:02 G MT
NOAA/CBRFC, 2020
Snow Water Equivalent (in)
Percent Seasonal Median
30
28
25
22
20
18
15
12
10
8
5
2
0
187
171
156
140
124
109
93
78
62
47
31
16
0
Past
Future
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
Date
Median 1981-2010
2020
2019

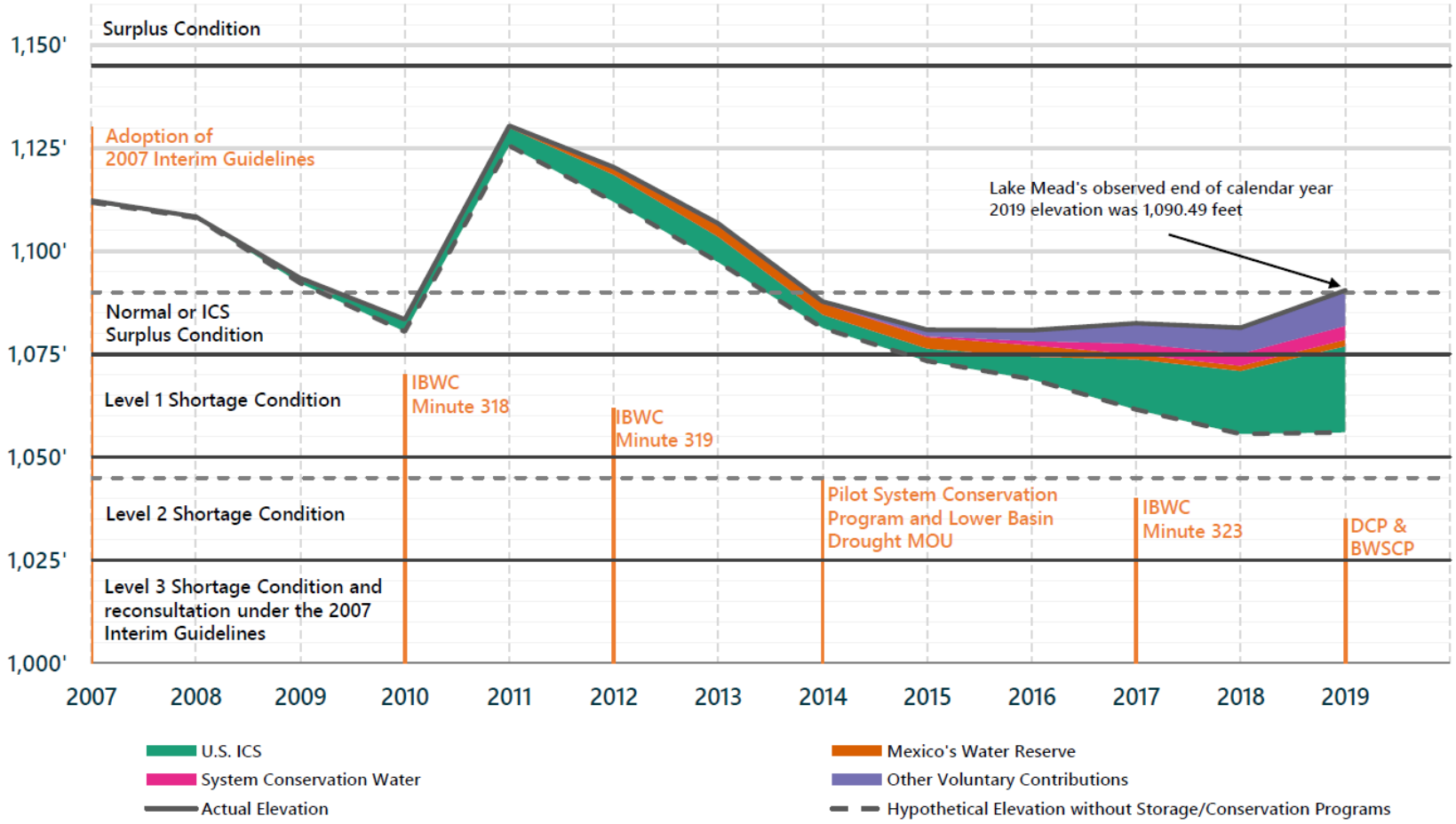
Lower Basin – Lake Mead
Percent of Traces with Event or System Condition
Results from April 2020 MTOM/CRSS using the Full Hydrology and Stress Test Hydrology (values in percent)

Event or System Condition	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Surplus Condition – any amount (Mead ≥ 1,145 ft)	**0**	**0**	**<1**	**6**	**10**	**0**	**0**	**0**	**<1**	**1**
Surplus – Flood Control	0	0	0	<1	2	0	0	0	0	0
Normal or ICS Surplus Condition (Mead < 1,145 and > 1,075 ft)	**100**	**100**	**91**	**63**	**53**	**100**	**100**	**88**	**53**	**44**
Recovery of DCP ICS / Mexico's Water Savings (Mead >/≥ 1,110 ft)	0	0	5	15	21	0	0	1	4	8
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,090 and > 1,075 ft)	100	94	77	44	34	100	94	78	41	32
Shortage Condition – any amount (Mead ≤ 1,075 ft)	**0**	**N**	**9**	**31**	**37**	**0**	**N**	**12**	**47**	**55**
Shortage / Reduction – 1st level (Mead ≤ 1,075 and ≥ 1,050)	*0*	*0*	*9*	*30*	*28*	*0*	*0*	*12*	*44*	*32*
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,075 and > 1,050 ft)	0	0	9	30	28	0	0	12	44	32
Shortage / Reduction – 2nd level (Mead < 1,050 and ≥ 1,025)	*0*	*0*	*0*	*1*	*9*	*0*	*0*	*0*	*3*	*23*
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,050 and > 1,045 ft)	0	0	0	1	3	0	0	0	2	5
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,045 and > 1,040 ft)	0	0	0	<1	2	0	0	0	<1	5
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,040 and > 1,035 ft)	0	0	0	0	2	0	0	0	0	7
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,035 and > 1,030 ft)	0	0	0	0	1	0	0	0	0	4
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,030 and ≥/> 1,025 ft)	0	0	0	0	1	0	0	0	0	3
Shortage / Reduction – 3rd level (Mead < 1,025)	*0*	*0*	*0*	*0*	*<1*	*0*	*0*	*0*	*0*	*0*
DCP Contribution / Mexico's Water Savings (Mead </≤ 1,025 ft)	0	0	0	0	<1	0	0	0	0	0

Notes:
[1] Modeled operations include the 2007 Interim Guidelines, Upper Basin Drought Response Operations, Lower Basin Drought Contingency Plan, and Minute 323, including the Binational Water Scarcity Contingency Plan.
[2] Reservoir initial conditions on December 31, 2020 were simulated using the April 2020 MTOM based on the CRRFC unregulated inflow forecast ensemble dated April 3, 2020.
[3] Each of the 35 initial conditions from MTOM were coupled with 113 hydrologic inflow sequences from the Full Hydrology that resamples the observed natural flow record from 1906-2018 for a total of 3955 traces analyzed and with 31 hydrologic inflow sequences from the Stress Test Hydrology that resamples the observed natural flow record from 1988-2018 for a total of 1,085 traces analyzed.
[4] Percentages shown in this table may not be representative of the full range of future possibilities that could occur with different modeling assumptions.
[5] Percentages shown may not sum to 100% due to rounding to the nearest percent.
[6] The chance of a Lower Basin Shortage in 2021 is negligible.

BUREAU OF RECLAMATION

Lake Mead Storage and Conservation 2007-2019



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.