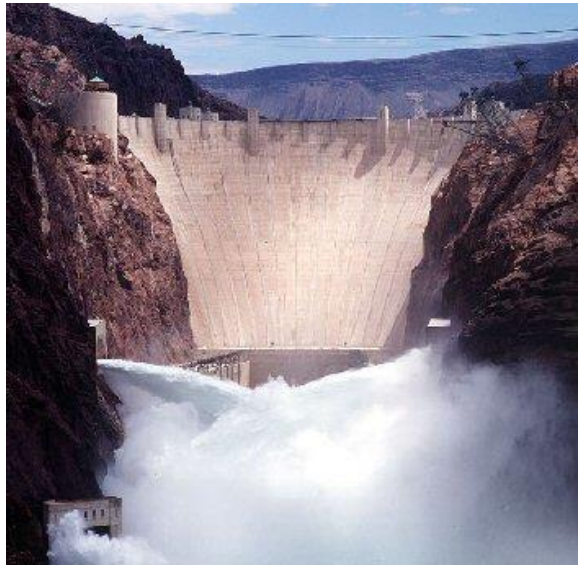
COLORADO RIVER BASIN STATUS UPDATE

Presented to:

Arizona Drought Interagency Coordinating Group

May 11, 2021



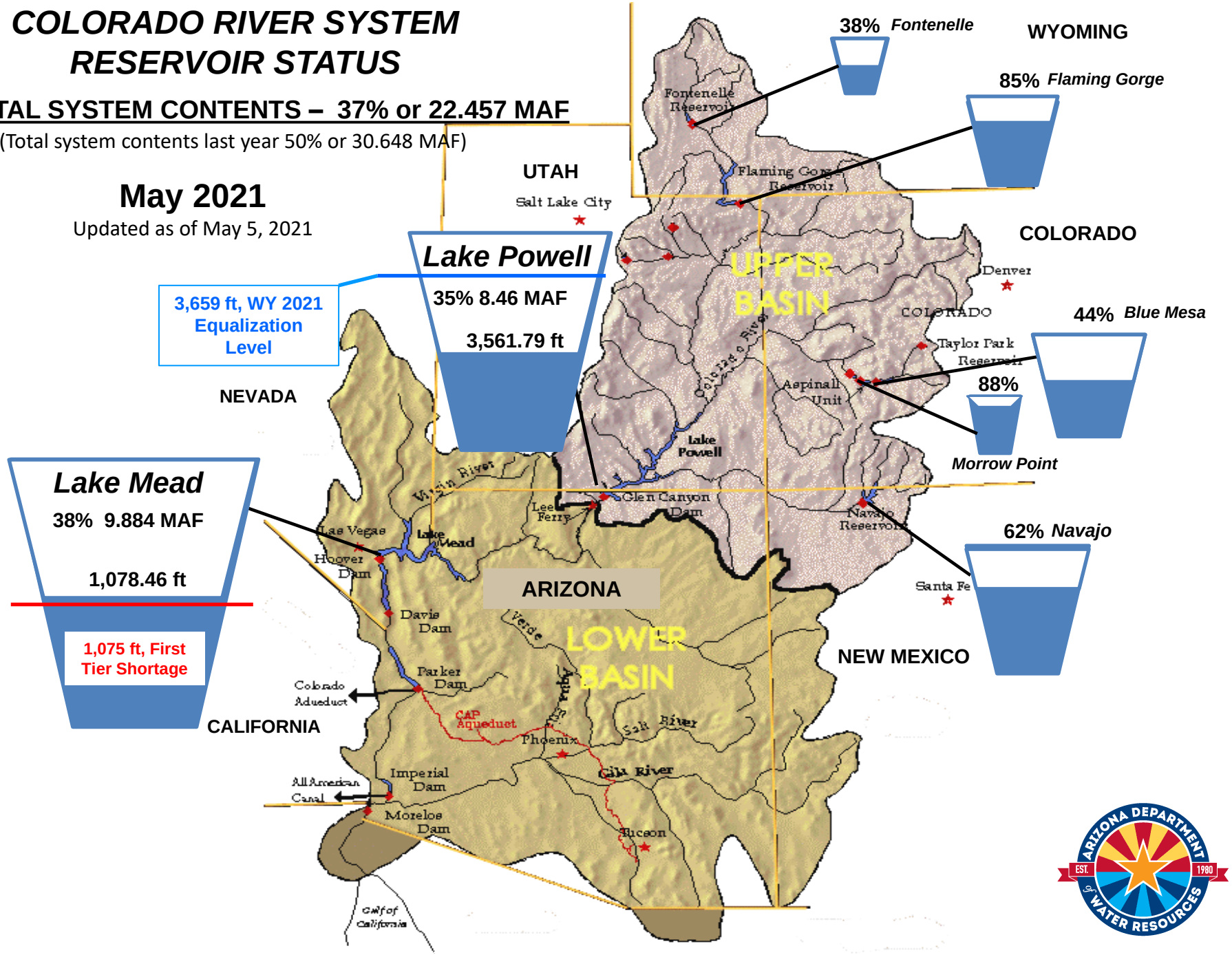
COLORADO RIVER SYSTEM RESERVOIR STATUS

TOTAL SYSTEM CONTENTS – 37% or 22.457 MAF

(Total system contents last year 50% or 30.648 MAF)

May 2021

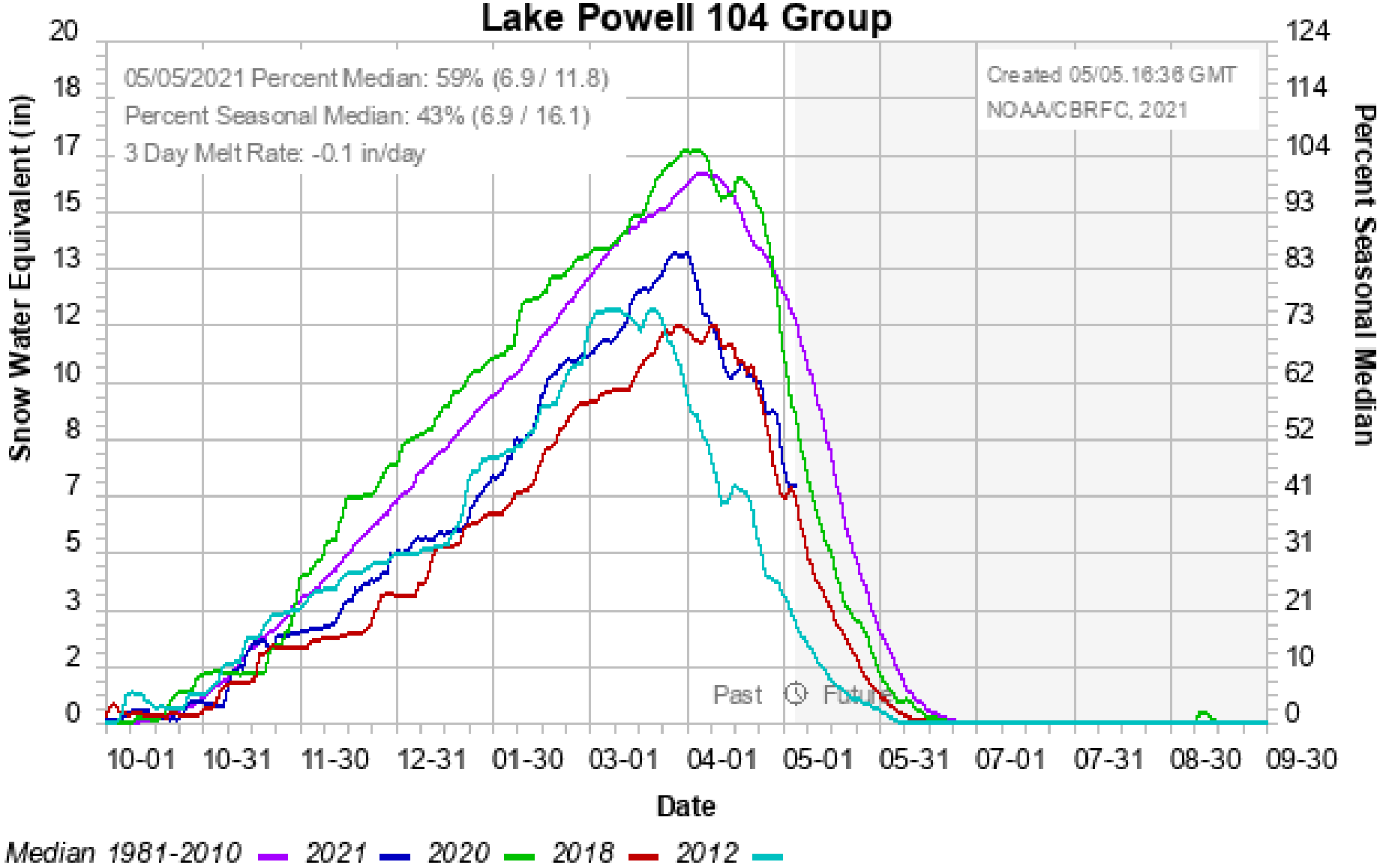
Updated as of May 5, 2021



Snow Water Equivalent

Conditions as of May 5, 2021

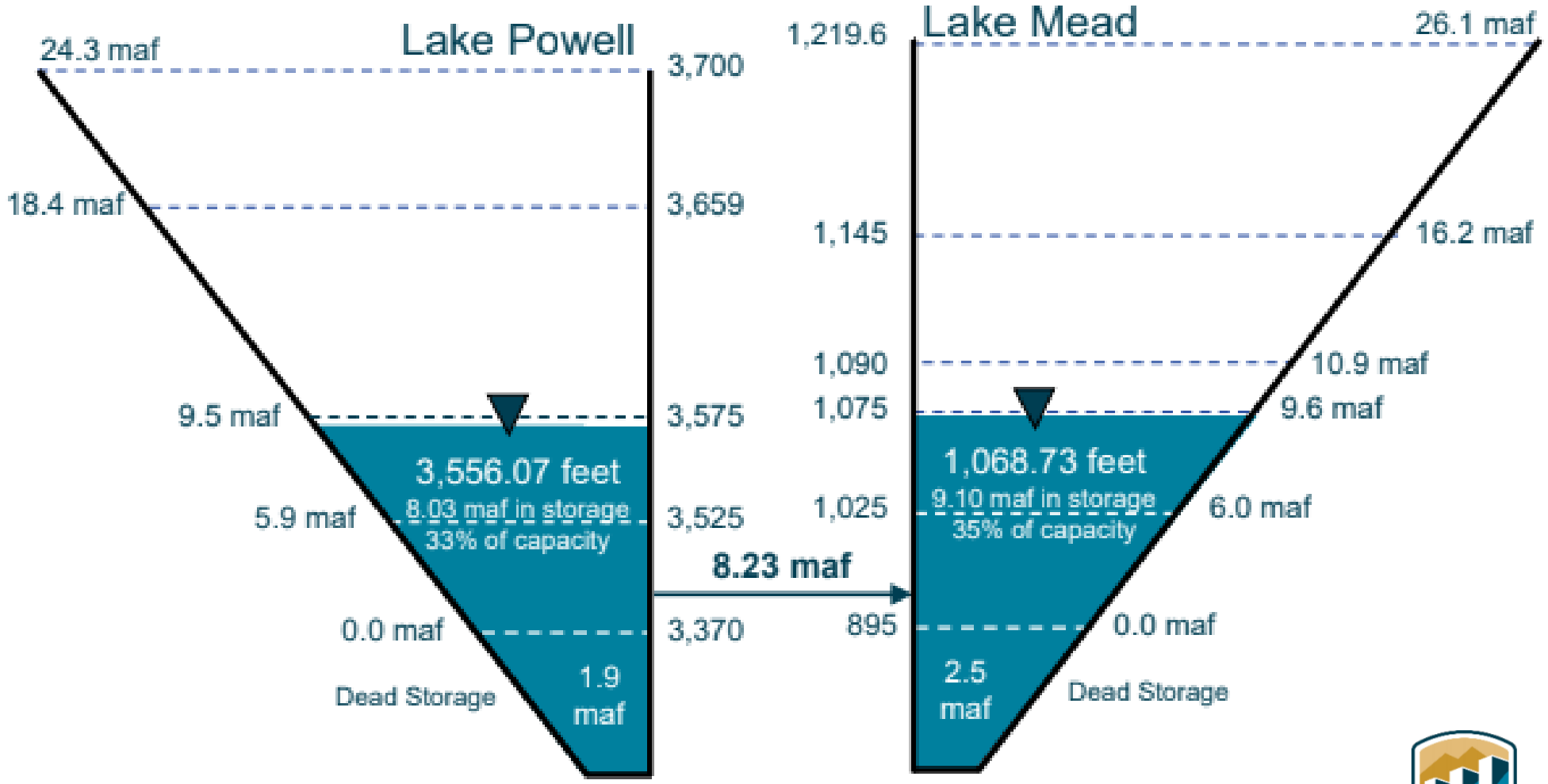
Colorado Basin River Forecast Center



End of Water Year 2021 Projections

April 2021 24-Month Study Most Probable Inflow Scenario[1]

Based on a Lake Powell Unregulated Inflow Forecast of 4.90 maf (45% of average)



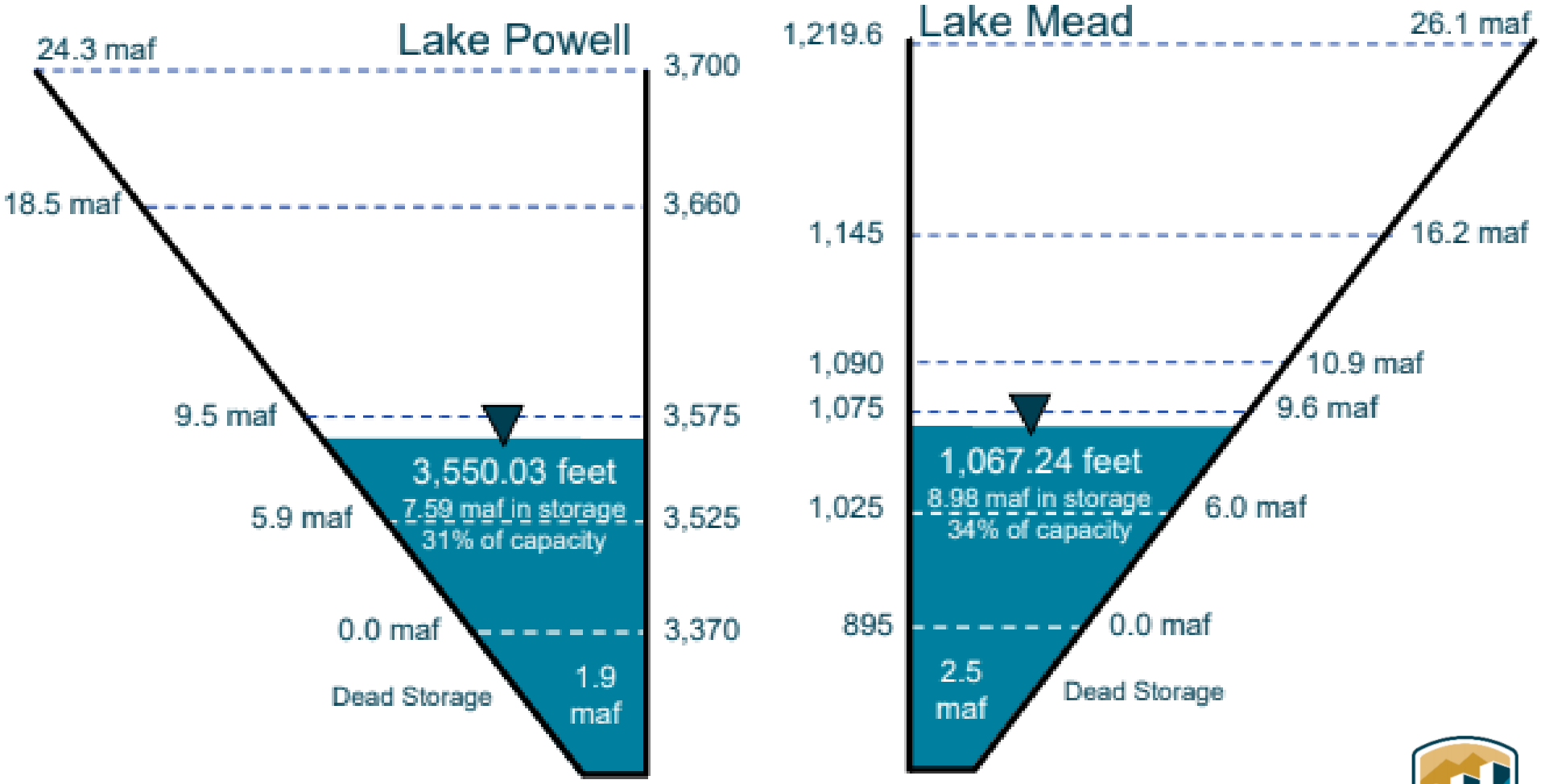
Not to Scale

[1] *WY 2021 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 4/2/21.*

End of Calendar Year 2021 Projections

April 2021 24-Month Study Most Probable Inflow Scenario[1]

Based on a Lake Powell release of 8.23 maf in WY 2021 and 7.48 maf in WY 2022



Not to Scale

[1] *WY 2021 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 4/2/21.*

Lake Powell & Lake Mead Operational Table

Operational Tiers for Water/Calendar Year 2021[1]

Lake Powell			Lake Mead		
Elevation (feet)	**Operation According to the Interim Guidelines**	**Live Storage (maf)[2]**	**Elevation (feet)**	**Operation According to the Interim Guidelines**	**Live Storage (maf)[2]**
3,700	**Equalization Tier** Equalize, avoid spills or release 8.23 maf	**24.3**	**1,220**	**Flood Control Surplus or Quantified Surplus Condition** Deliver > 7.5 maf	**25.9**
3,636 - 3,666 (2008-2026)		**15.5 - 19.3** (2008-2026)	**1,200** (approx.)[3]		**22.9** (approx.)[3]
	Upper Elevation Balancing Tier[4] Release 8.23 maf if Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf			**Domestic Surplus or ICS Surplus Condition** Deliver > 7.5 maf	
			1,145		**15.9**
			1,105	**Normal or ICS Surplus Condition** Deliver ≥ 7.5 maf	**11.9**
3,575		**9.5**			
			1,075		**9.4**
January 1, 2022 Projection 3,550.03’	**Mid-Elevation Release Tier** Release 7.48 maf, if Lake Mead < 1,025 maf, release 8.23 maf			**Shortage Condition** Deliver 7.167[5] maf	January 1, 2022 Projection 1067.24’
			1,050		**7.5**
3,525		**5.9**		**Shortage Condition** Deliver 7.083[6] maf	
			1,025		**5.8**
	Lower Elevation Balancing Tier Balance contents with a min/max release of 7.0 and 9.0 maf			**Shortage Condition** Deliver 7.0[7] maf Further measures may be undertaken[8]	
3,490		**4.0**	**1,000**		**4.3**
3,370		**0**	**895**		**0**

Diagram not to scale

[1] Lake Powell and Lake Mead operational tier determinations were based on November 2020 24-Month Study projections.

[2] Acronym for million acre-feet

[3] This elevation is shown as approximate as it is determined each year by considering several factors including Lake Powell and Lake Mead storage, projected Upper Basin and Lower Basin demands, and an assumed inflow.

[4] Subject to April adjustments which may result in a release according to the Equalization Tier

[5] of which 2.48 maf is appropriated to Arizona, 4.4 maf to California, and 0.287 maf to Nevada

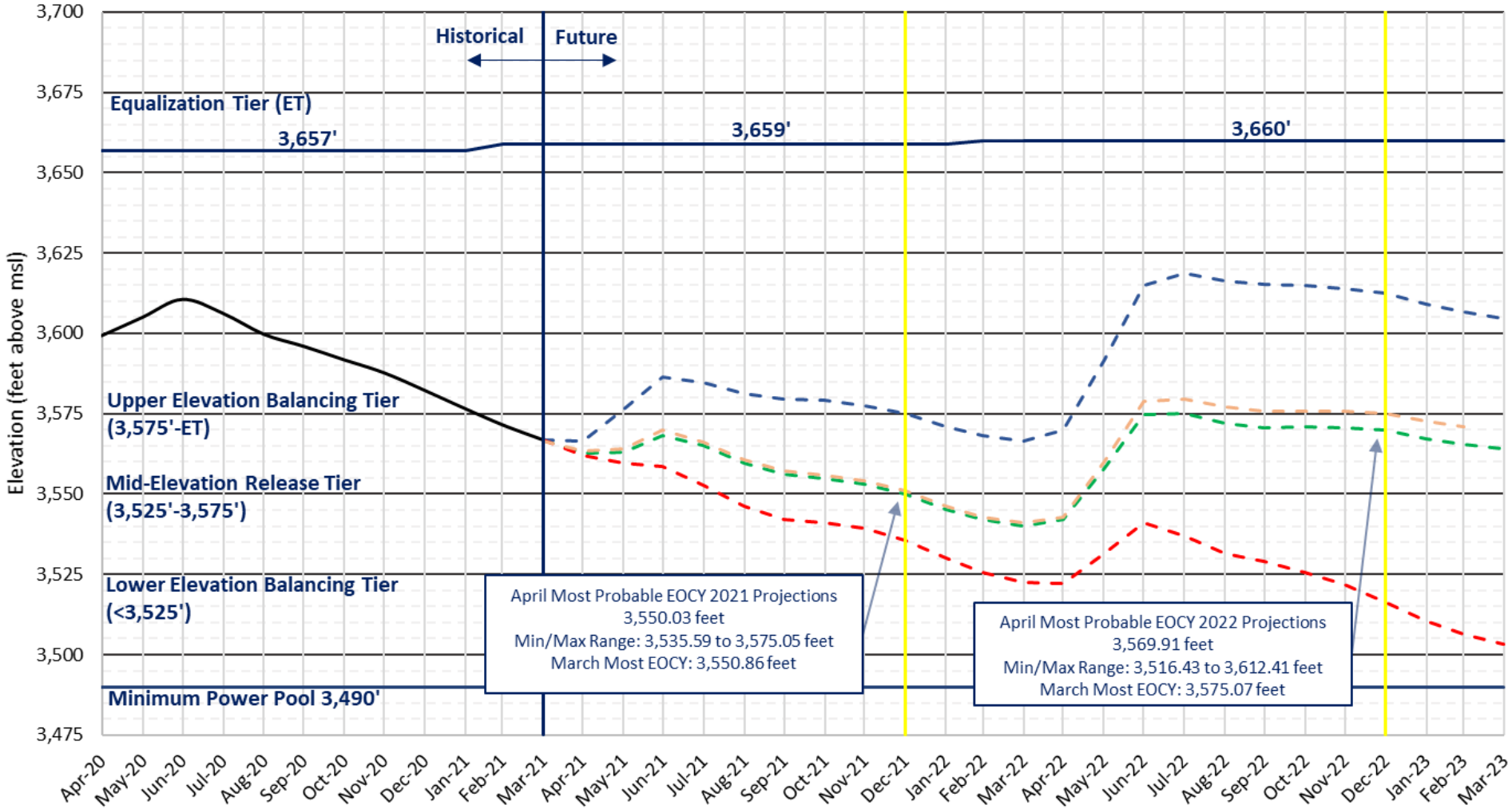
[6] of which 2.40 maf is appropriated to Arizona, 4.4 maf to California, and 0.283 maf to Nevada

[7] of which 2.32 maf is appropriated to Arizona, 4.4 maf to California, and 0.280 maf to Nevada

[8] Whenever Lake Mead is below elevation 1,025 feet, the Secretary shall consider whether hydrologic conditions together with anticipated deliveries to the Lower Division States and Mexico is likely to cause the elevation at Lake Mead to fall below 1,000 feet. Such consideration, in consultation with the Basin States, may result in the undertaking of further measures, consistent with applicable Federal law.

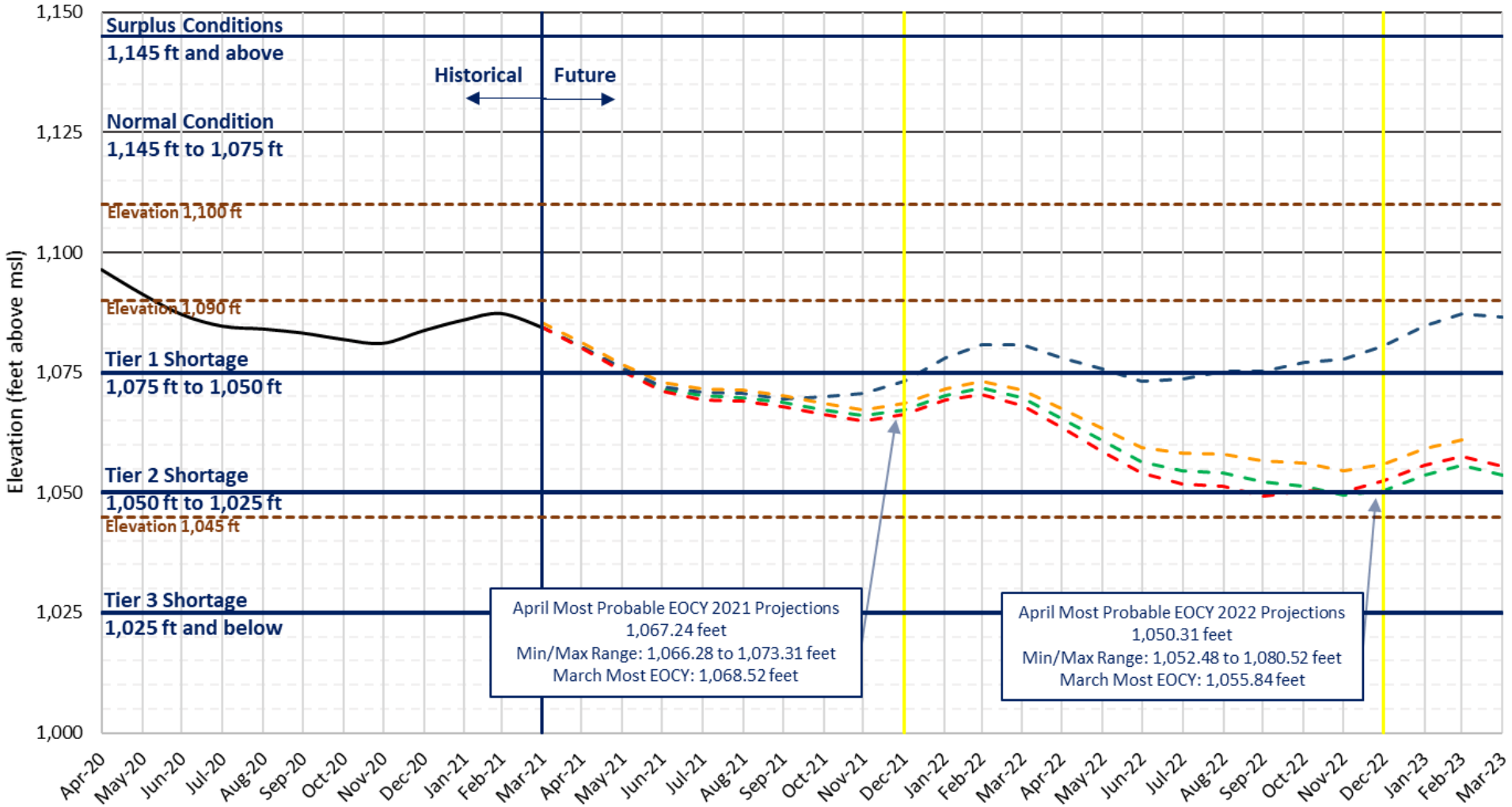
Lake Powell End of Month Elevations

Historic and Projected based on April and March 2021 24-Month Study Inflow Scenarios



Lake Mead End of Month Elevations

Historic and Projected based on April and March 2021 24-Month Study Inflow Scenarios



Lower Basin – Lake Mead
Percent of Traces with Event or System Condition
Results from April 2021 CRMMS MTOM Mode/CRSS using the Full Hydrology and Stress Test Hydrology (values in percent)

Event or System Condition	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
Surplus Condition – any amount (Mead ≥ 1,145 ft)	0	0	0	1	4	0	0	0	0	0
Surplus – Flood Control	0	0	0	0	<1	0	0	0	0	0
Normal or ICS Surplus Condition (Mead < 1,145 and > 1,075 ft)	100	3	6	17	19	100	3	8	9	6
Recovery of DCP ICS / Mexico's Water Savings (Mead >/≥ 1,110 ft)	0	0	0	4	9	0	0	0	0	<1
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,090 and > 1,075 ft)	100	3	5	11	10	100	3	7	9	3
Shortage Condition – any amount (Mead ≤ 1,075 ft)	0	97	94	82	77	0	97	92	91	94
Shortage / Reduction – 1st level (Mead ≤ 1,075 and ≥ 1,050)	*0*	*97*	*81*	*37*	*34*	*0*	*97*	*71*	*31*	*33*
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,075 and > 1,050 ft)	0	97	81	37	34	0	97	71	31	33
Shortage / Reduction – 2nd level (Mead < 1,050 and ≥ 1,025)	*0*	*0*	*13*	*44*	*32*	*0*	*0*	*21*	*60*	*36*
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,050 and > 1,045 ft)	*0*	*0*	*11*	*9*	*6*	*0*	*0*	*17*	*6*	*7*
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,045 and > 1,040 ft)	0	0	2	9	6	0	0	4	11	6
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,040 and > 1,035 ft)	0	0	<1	11	8	0	0	0	16	6
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,035 and > 1,030 ft)	0	0	0	10	7	0	0	0	17	6
DCP Contribution / Mexico's Water Savings (Mead ≤ 1,030 and ≥/> 1,025 ft)	0	0	0	5	6	0	0	0	9	10
Shortage / Reduction – 3rd level (Mead < 1,025)	*0*	*0*	*0*	*1*	*11*	*0*	*0*	*0*	*<1*	*25*
DCP Contribution / Mexico's Water Savings (Mead </≤ 1,025 ft)	0	0	0	1	11	0	0	0	<1	25

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 March 31, 2021 were simulated using the April 2021 MTOM based on the CBRFC unregulated inflow forecast ensemble dated April 2, 2021.
[3] Each of the 35 initial conditions from MTOM were coupled with 114 hydrologic inflow sequences from the Full Hydrology that resamples the observed natural flow record from 1906-2019 for a total of 3,990 traces analyzed and with 32 hydrologic inflow sequences from the Stress Test Hydrology that resamples the observed natural flow record from 1988-2019 for a total of 1,120 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.

BUREAU OF RECLAMATION

Questions?

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