Western Area Power Administration

Colorado River Storage Project Update

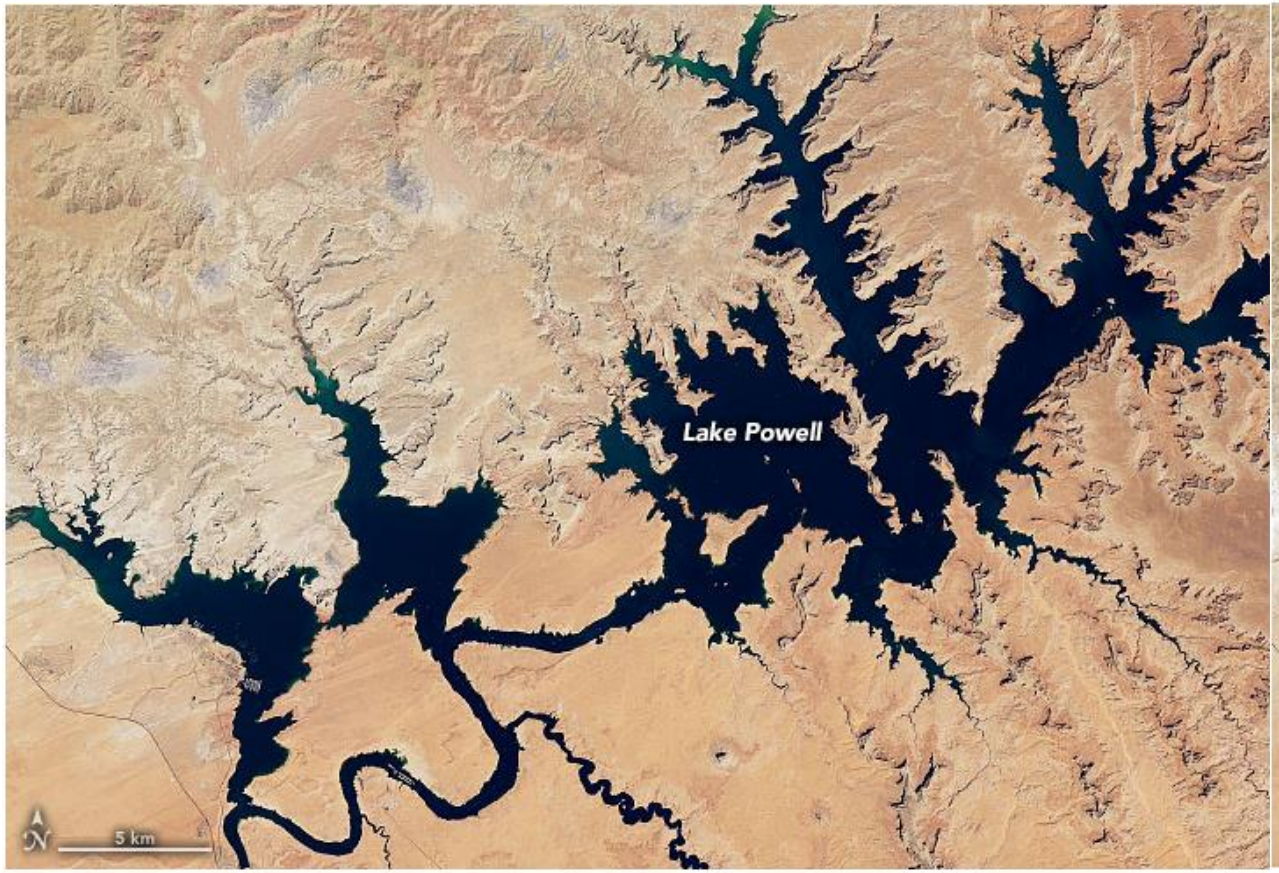
ATEA 2023 annual meeting

Rodney Bailey
Senior Vice President
and Colorado River Storage Project Manager

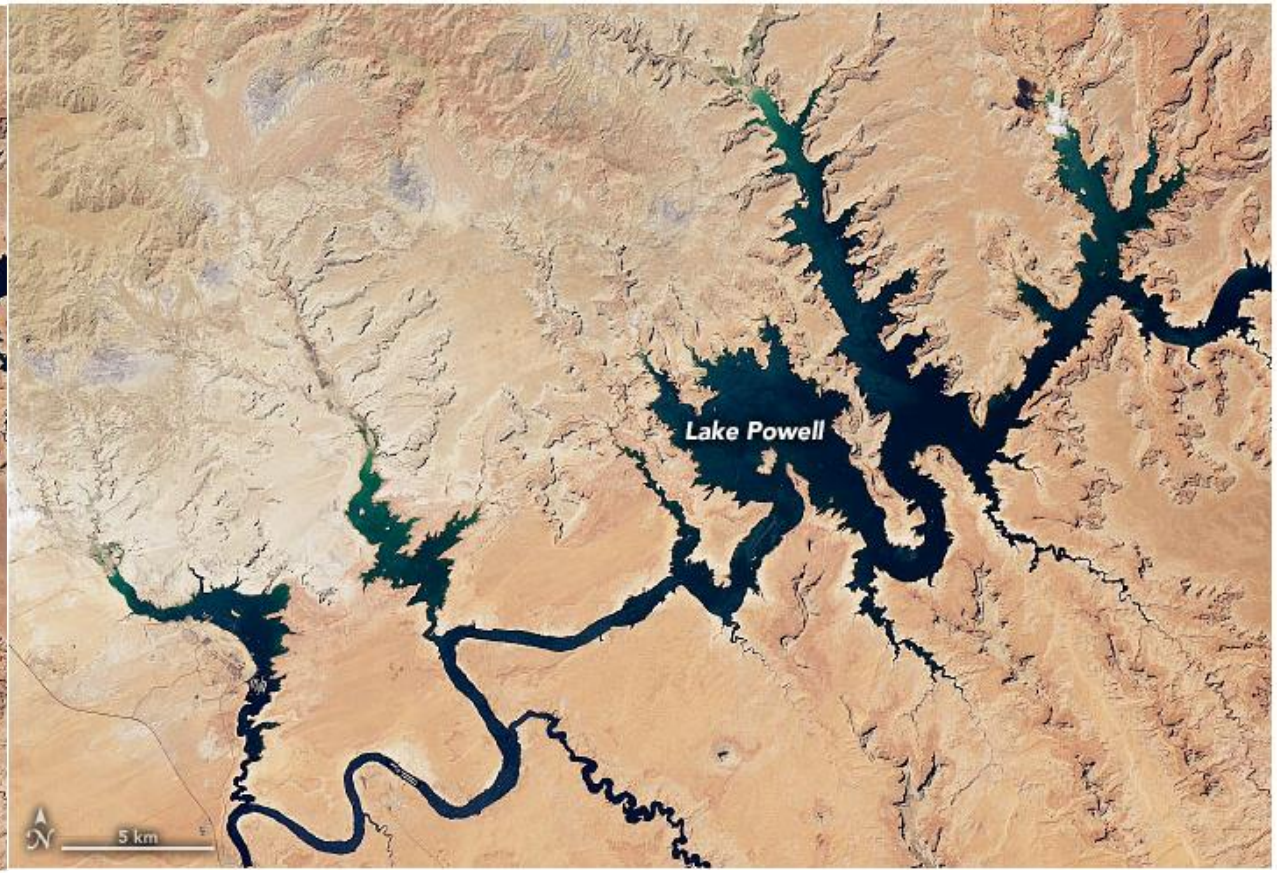
May 11, 2023

CRSP Hydrology and Generation Update

Based on April 24-month study



August 2017

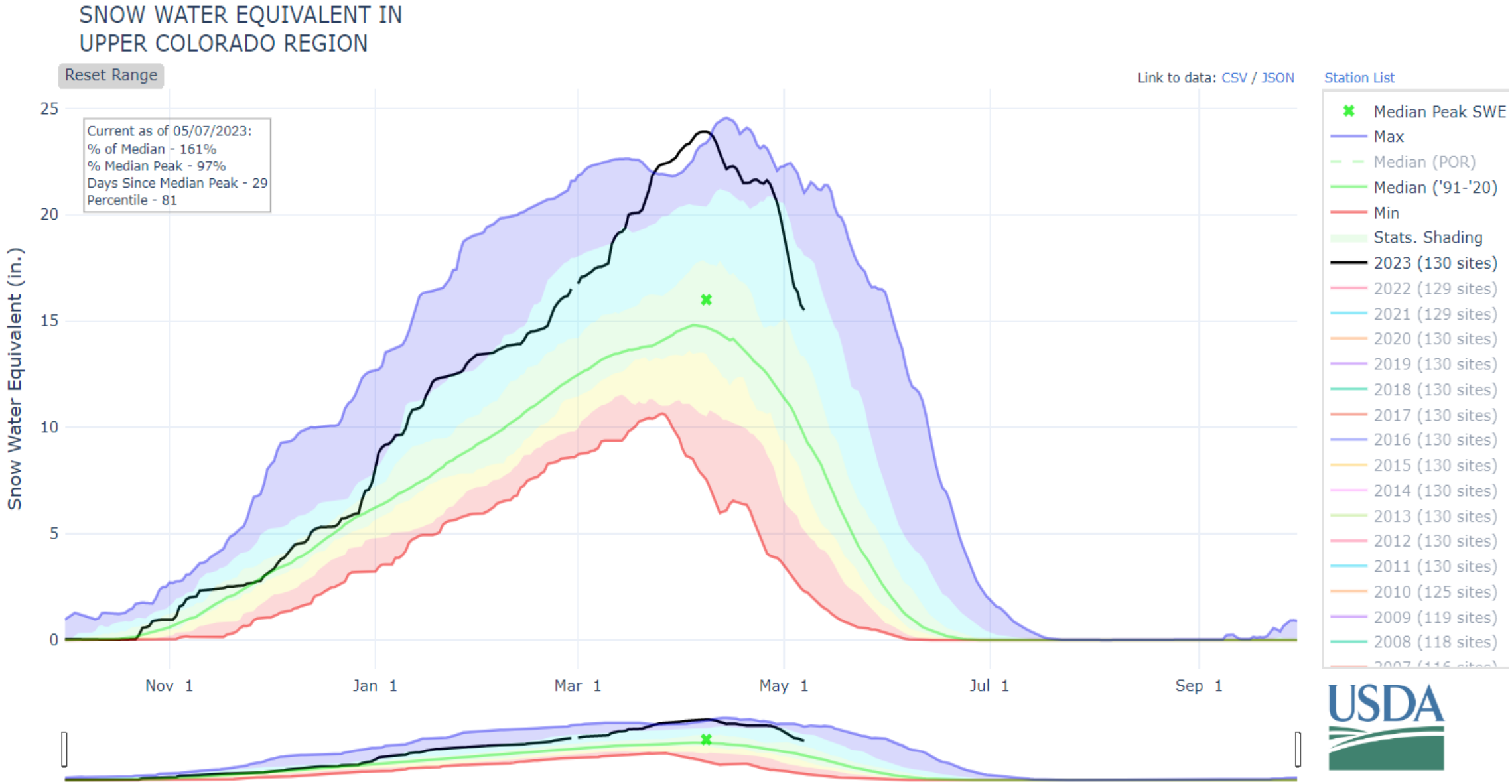


August 2022

Glen Canyon Electrical Production

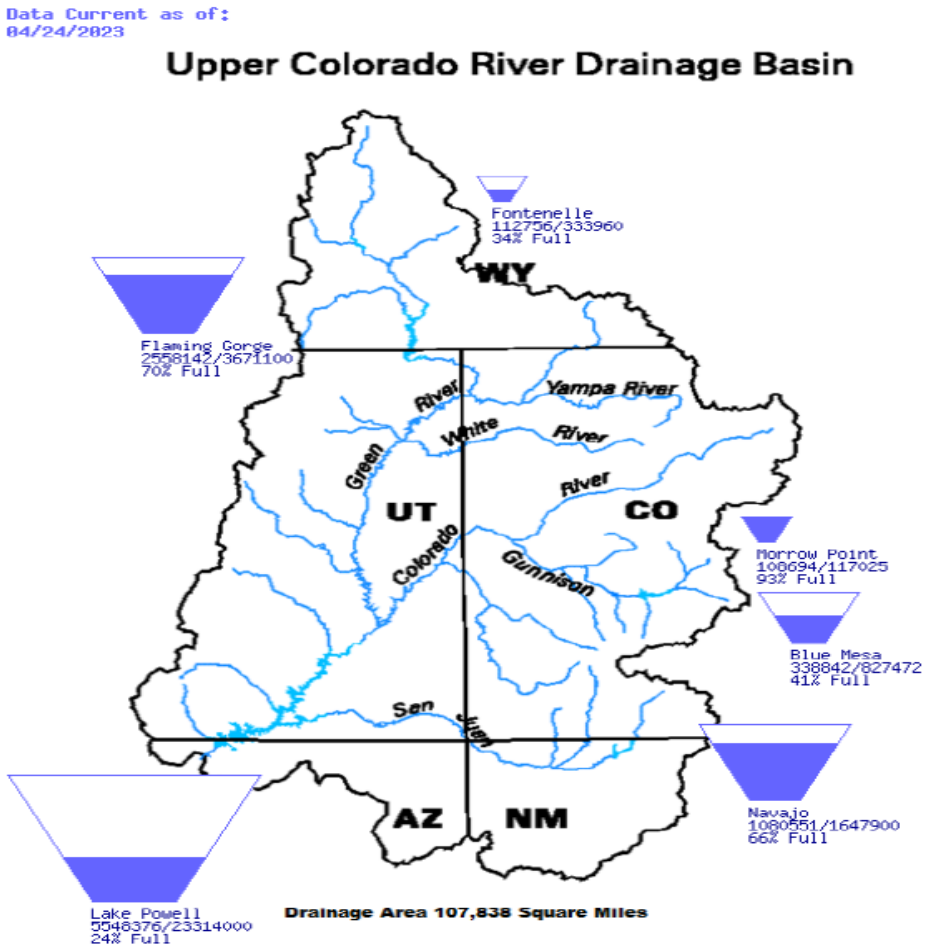
Year	Release Volume (maf)	Electrical Production (GWhs)
2022	7.0	3,443
2021	8.23	4,258
1992-2022 Average	9.11	5,400

Power production in 2022 was 19 percent less than 2021 and 36 percent less than the 30-year average


SNOW WATER EQUIVALENT IN
UPPER COLORADO REGION
Reset Range
Link to data: CSV / JSON
Station List
Current as of 05/07/2023:
% of Median - 161%
% Median Peak - 97%
Days Since Median Peak - 29
Percentile - 81
Snow Water Equivalent (in.)
25
20
15
10
5
0
Nov 1
Jan 1
Mar 1
May 1
Jul 1
Sep 1
Median Peak SWE
Max
Median (POR)
Median ('91-'20)
Min
Stats. Shading
2023 (130 sites)
2022 (129 sites)
2021 (129 sites)
2020 (130 sites)
2019 (130 sites)
2018 (130 sites)
2017 (130 sites)
2016 (130 sites)
2015 (130 sites)
2014 (130 sites)
2013 (130 sites)
2012 (130 sites)
2011 (130 sites)
2010 (125 sites)
2009 (119 sites)
2008 (118 sites)

Upper Basin Storage (as of April 24, 2023)

Reservoir	Percent Current Live Storage	Current Live Storage (maf)	Live Storage Capacity (maf)	Elevation (feet)
Fontenelle	34	0.11	0.33	6,470.06
Flaming Gorge	70	2.56	3.67	6,009.17
Blue Mesa	41	0.34	0.83	7,455.24
Navajo	66	1.08	1.65	6,041.88
Lake Powell	24	5.55	23.31	3,525.06
UC System Storage	33	9.76	29.79	
Total System Storage	33	19.51	58.48	



Projection:

end WY 2023 a ~3575 elevation (up ~ 50 ft)

~ 39% of capacity

Most Probable April Forecast
Water Year 2023

April – July 2023
Forecasted Unregulated Inflow

as of April 5, 2023

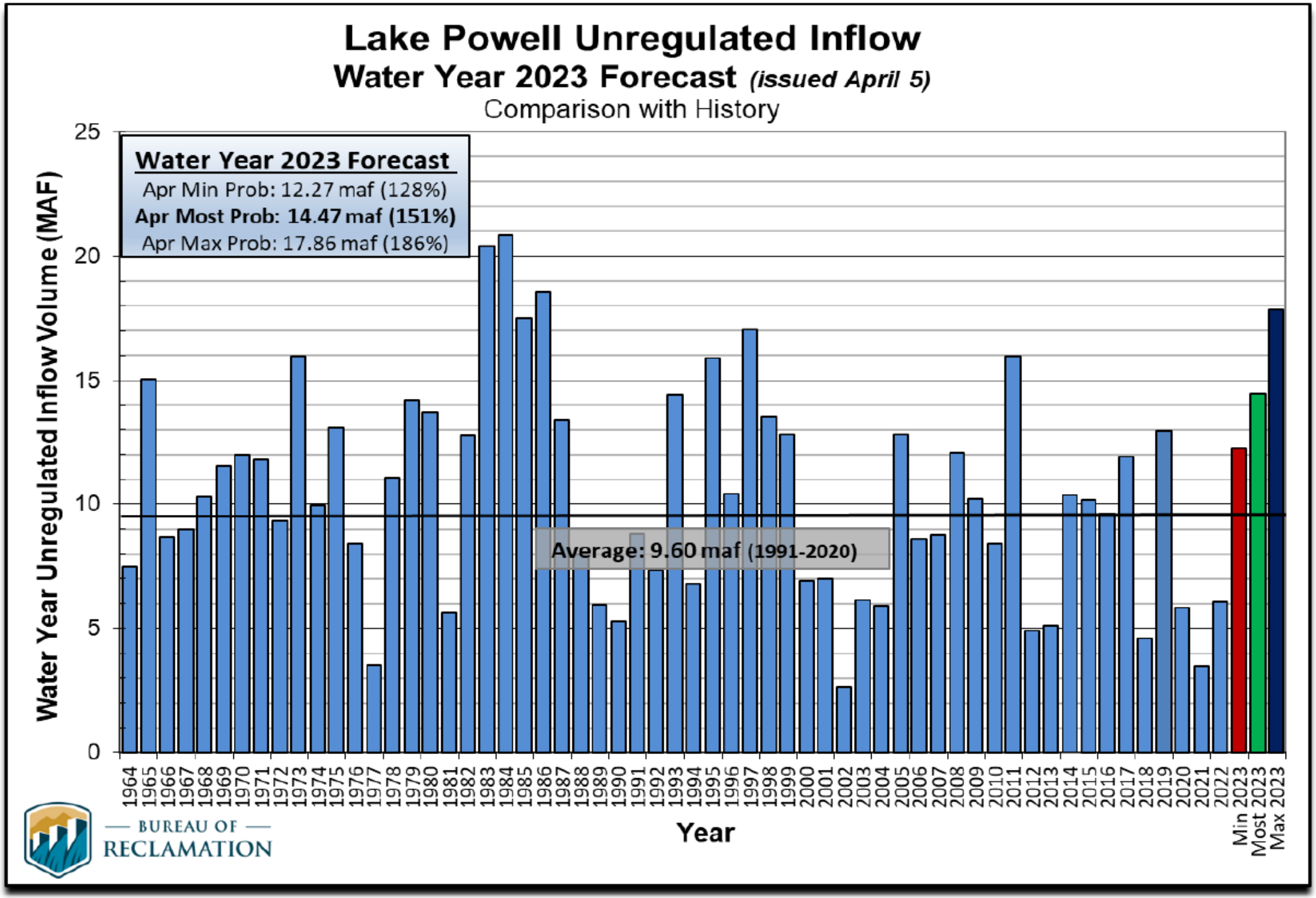
Reservoir	Inflow (kaf)	Percent of Avg[1]
Fontenelle	800	109
Flaming Gorge	1,200	124
Blue Mesa	850	134
Navajo	945	150
Powell	11,300	177
Midmonth 11,100 kaf (175% of avg)		

Water Year 2023
Unregulated Inflow Forecast

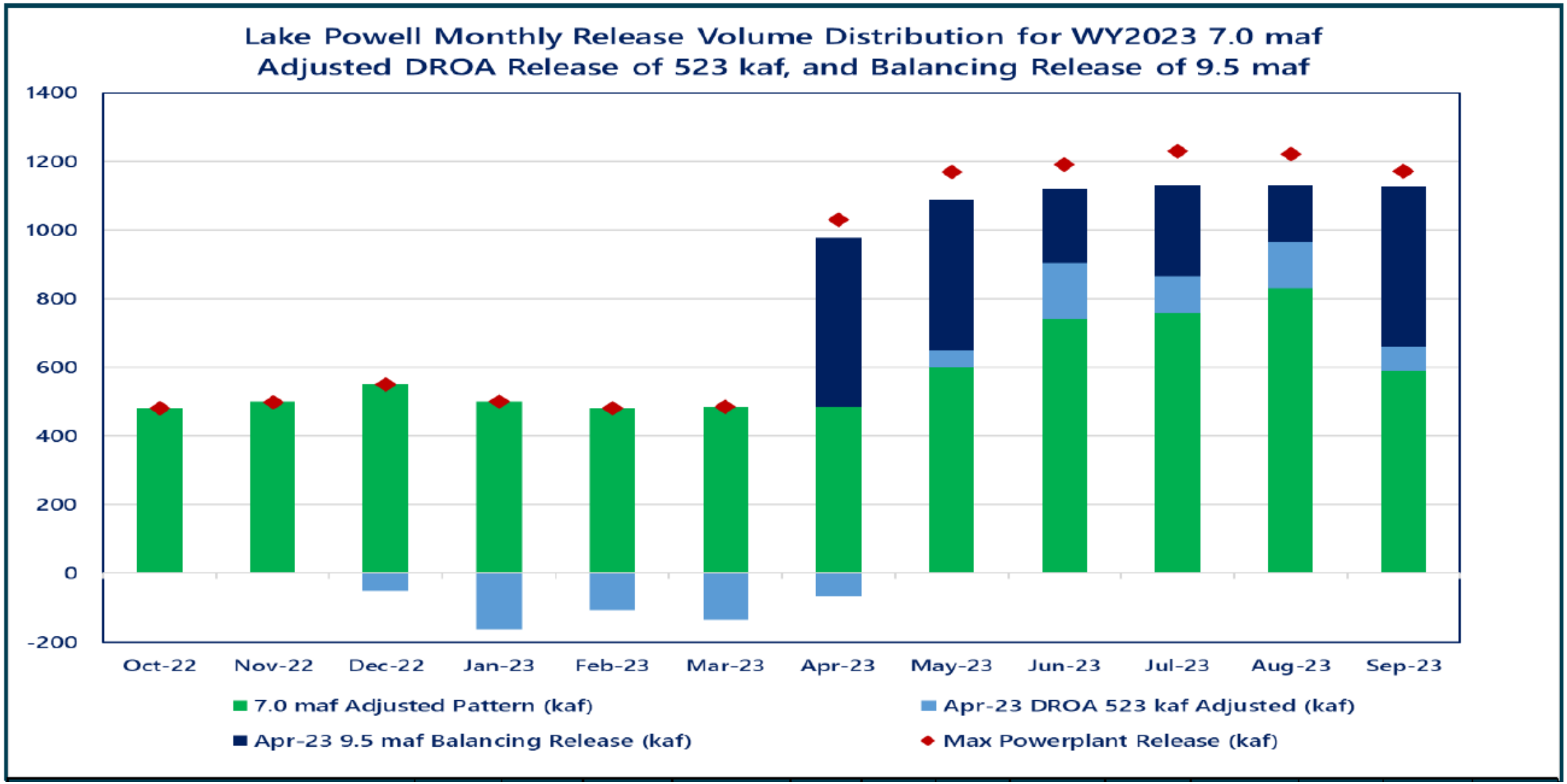
as of April 5, 2023

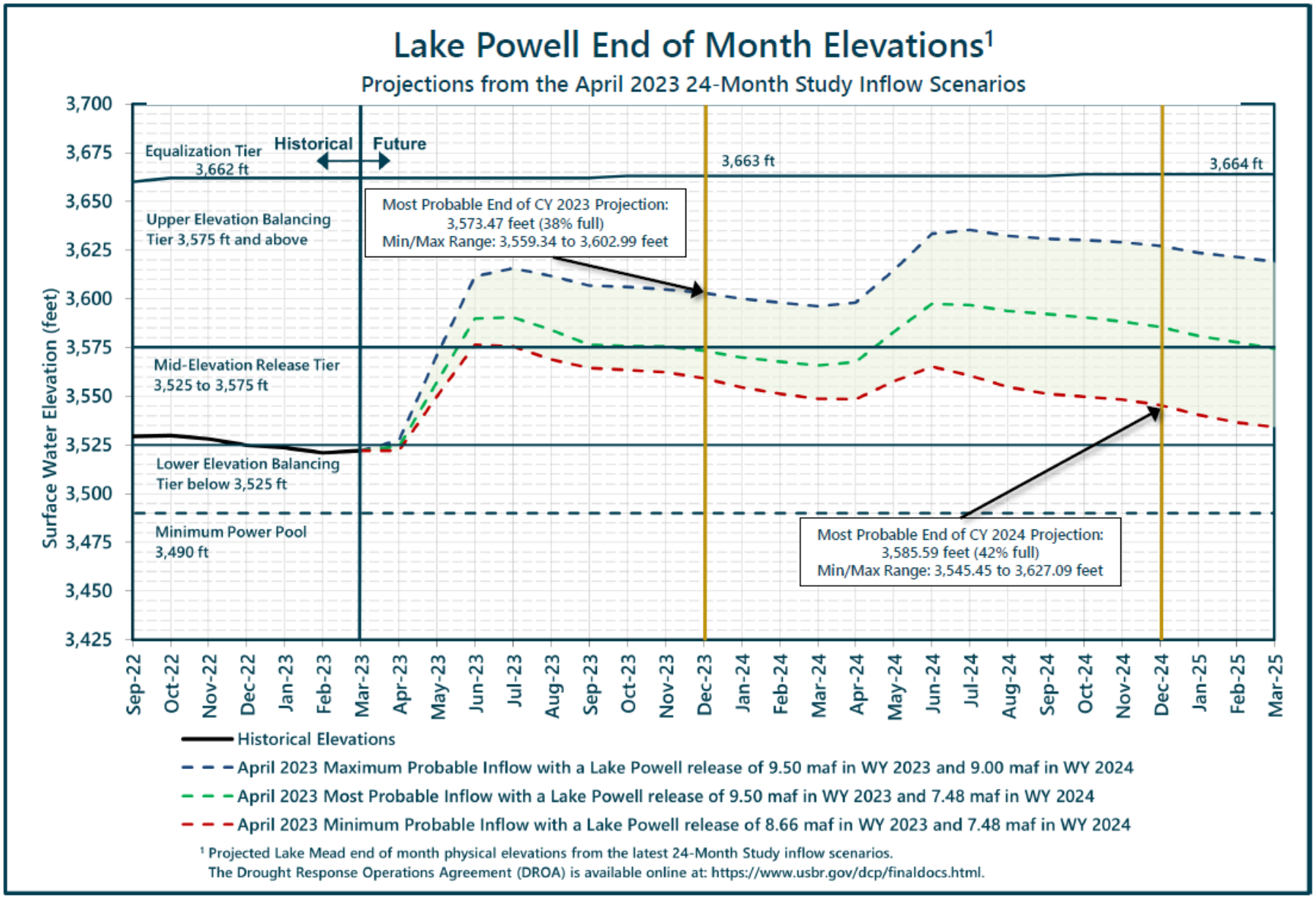
Reservoir	Inflow (kaf)	Percent of Avg[1]
Fontenelle	1,095	102
Flaming Gorge	1,548	110
Blue Mesa	1,101	122
Navajo	1,195	131
Powell	14,472	151
Midmonth 14,272 kaf (149% of avg)		

[1]Averages are based on the 1991 through 2020 period of record.


Lake Powell Unregulated Inflow
Water Year 2023 Forecast (issued April 5)
Comparison with History
Water Year 2023 Forecast
Apr Min Prob: 12.27 maf (128%)
Apr Most Prob: 14.47 maf (151%)
Apr Max Prob: 17.86 maf (186%)
Average: 9.60 maf (1991-2020)
Water Year Unregulated Inflow Volume (MAF)
0
5
10
15
20
25
1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 Min 2023 Most 2023 Max 2023
Year
BUREAU OF RECLAMATION

WY2023 Potential GCD Release of 9.5 maf





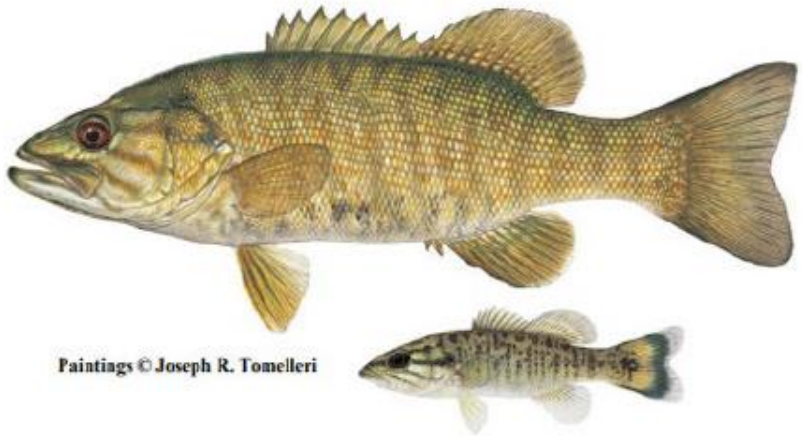
The chart above displays projected "physical" elevations for Lake Powell.

Supplemental Environmental Impact Statement for Near-term Colorado River Operations

- Covers WY 2023 – 2027
- Three alternatives have been prepared
  - No Action – continued operation under 2007 Interim Guidelines
  - Action Alternative 1
  - Action Alternative 2
- Each of the Action Alternatives
  - targets 3500’ as minimum value at Lake Powell
  - targets 1000’ at Mead
  - Utilizes water delivery shortages in the LB to maintain elevations
- Main difference in Alternative 2 is that additional reductions would be distributed in the same percentage across all Lower Basin water users
- Public Draft released – comments due May 30, 2023

Small Mouth Bass – Potential Bypass Releases

- Small mouth bass are predators to endangered species
- Bureau of Reclamation Prepared and Environmental Assessment
- Proposed Plan to by-pass hydro generators
  - Purpose is to lower the water temperatures of the river
  - Target is16 degree Celsius
  - Bass are warm water species
- Reclamation received ~7000 comments
  - Determine they could not move forward
  - Likely move forward with an EIS – estimated ROD by May 2024
    - Out come could have possible impact to future operations of the dam
- BOR reserve rights to adjust as needed



Salt Lake City Area Integrated Projects (SLCA/IP) Rate

- Current Rate – Rate Order No.WAPA-199 expires December 31, 2023
- Rate process – Rate Order No. WAPA -206 effective January 1, 2024
  - Kick off with publication of a Federal Register Notice in mid June 2023
  - July 19, 2021 – Public Information Forum
  - 90-day Public Comment Period – end mid September
  - Will send letter to CRSP Customers when FRN posts

Exploring Southwest Power Pool (SPP) Regional Transmission Organization (RTO) Membership

- CRSP has spent the past 2 years analyzing
- On April 28, 2023, WAPA published a Federal Register notice (FRN)
- Recommend pursuing final negotiations regarding SPP RTO Membership
- Information about the process and link to the FRN
  - https://www.wapa.gov/About/keytopics/Pages//southwest-power-pool-membership.aspx

Exploring Southwest Power Pool (SPP) Regional Transmission Organization (RTO) Membership (cont.)

- Tribal Consultation Invitation from WAPA CEO, Tracey LeBeau
  - Sent April 12, 2023
- Consultation Meeting Information
  - Friday, May 12, 2023
- 11:30 a.m. to 1:30 p.m., Mountain Daylight Time
  - To receive meeting connection information, contact Kirsten McClure - mcclure@wapa.gov
- Comment period ends June 12, 2023
  - For Tribal comments to WAPA, email spp-tribalcomments@wapa.gov
- More information: https://www.wapa.gov/About/keytopics/Pages//southwest-power-pool-membership.aspx

SLCA/IP Annual Customer meeting

- Thursday, July 20, 2023 in Salt Lake City Utah
  - Save the date sent in January
- Virtual option will be available
- More details to come

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