



— BUREAU OF —
RECLAMATION

Glen Canyon Monthly Operations Call

Basin Hydrology and Operations

October 21, 2025

Background

This briefing is being provided consistent with the provision in Attachment B - Section 1.1 of the LTEMP ROD which states:

“Annually, Reclamation will develop a hydrograph based on the characteristics above. Reclamation will seek consensus on the annual hydrograph through monthly operational coordination calls with governmental entities, and regular meetings of the GCDAMP Technical Working Group (TWG) and AMWG.

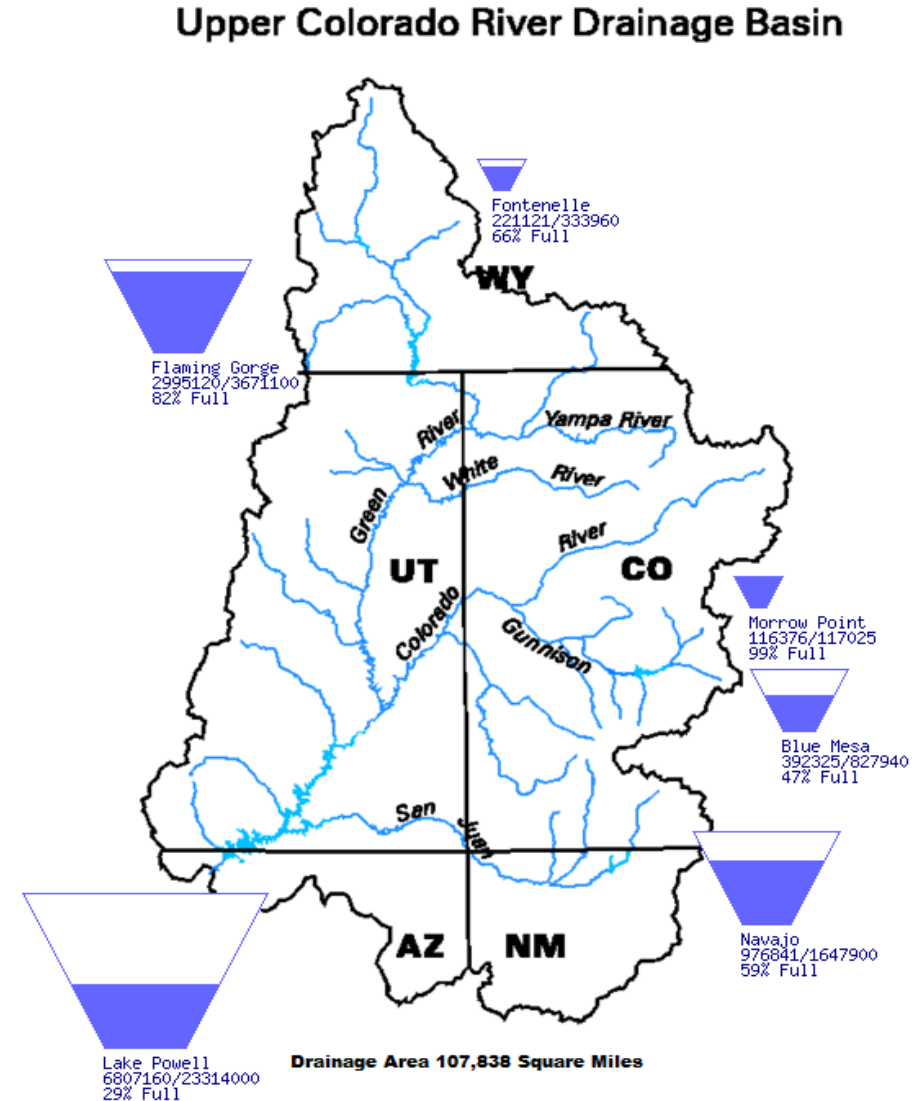
Reclamation will conduct monthly Glen Canyon Dam operational coordination meetings or calls with the DOI bureaus (USGS, NPS, FWS, and BIA), WAPA, and representatives from the Basin States and UCRC. The purpose of these meetings or calls is for the participants to share and seek information on Glen Canyon Dam operations. One liaison from each Basin State and from the UCRC may participate in the monthly operational coordination meetings or calls.”



Upper Basin Storage (as of October 19, 2025)

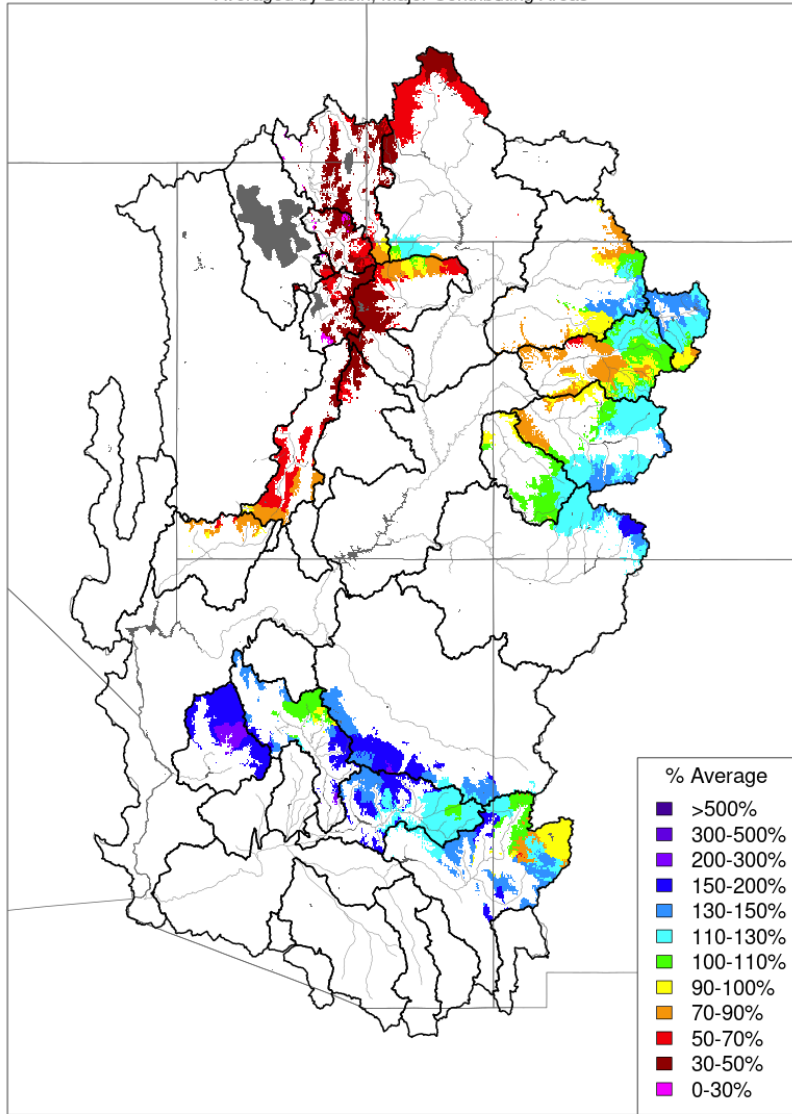
Data Current as of:
10/18/2025

Reservoir	Percent Current Live Storage	Current Live Storage (maf)	Live Storage Capacity (maf)	Elevation (feet)
Fontenelle	66	0.22	0.33	6490.35
Flaming Gorge	82	2.99	3.67	6022.47
Blue Mesa	47	0.39	0.83	7464.01
Navajo	59	0.98	1.65	6032.11
Lake Powell	29	6.81	23.31	3545.59
UC System Storage	39	11.53	29.93	
Total System Storage	37	21.92	58.48	



Monthly Precipitation - September 2025

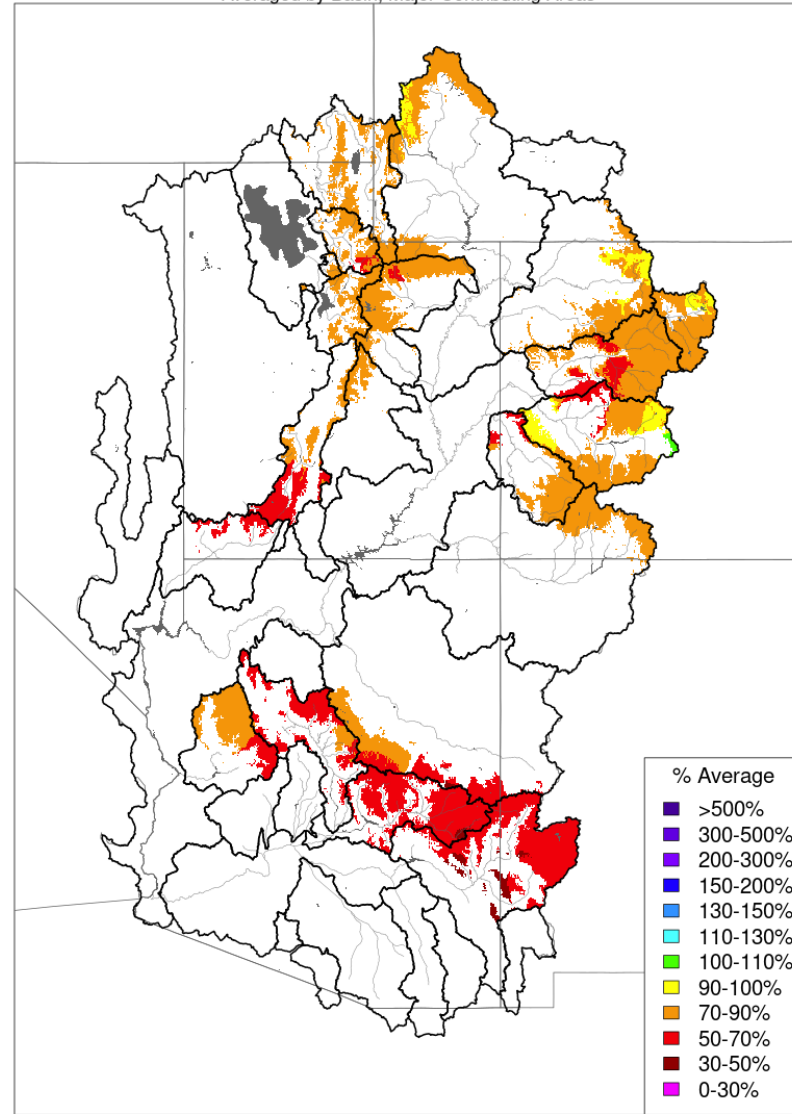
Averaged by Basin, Major Contributing Areas



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

Water Year to Date Precipitation, October 01 - September 30 2025

Averaged by Basin, Major Contributing Areas

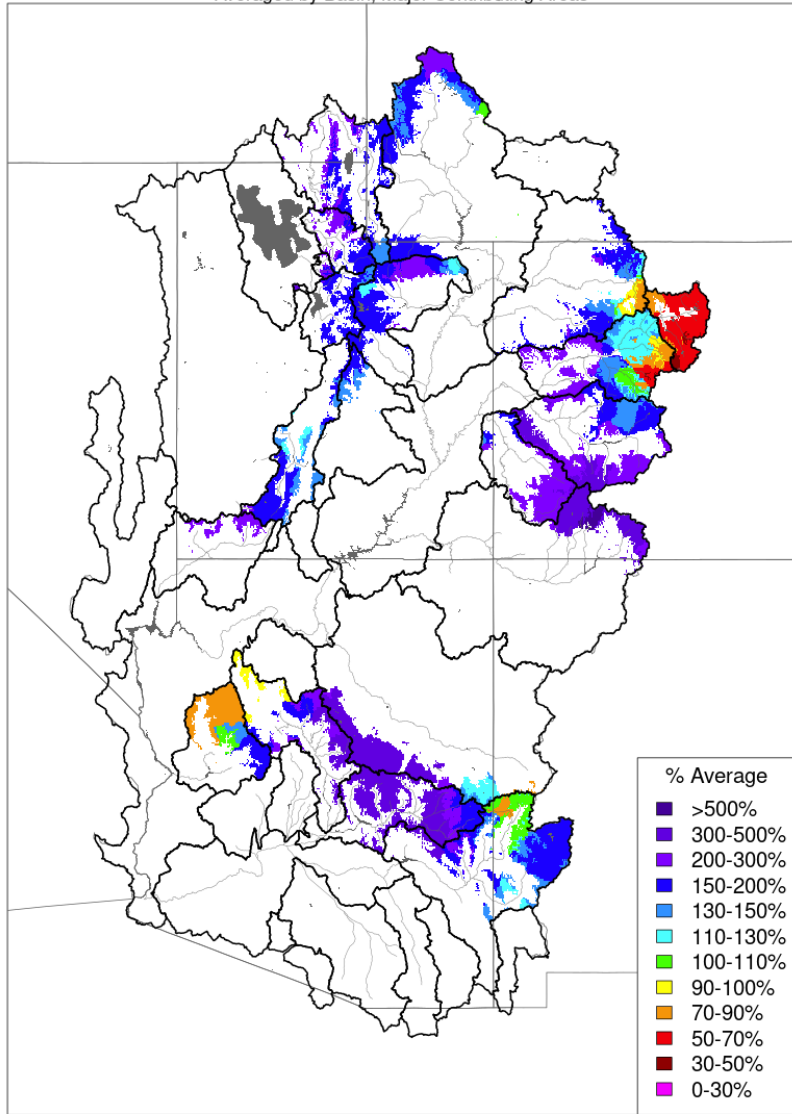


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov



Month to Date Precipitation - October 20 2025

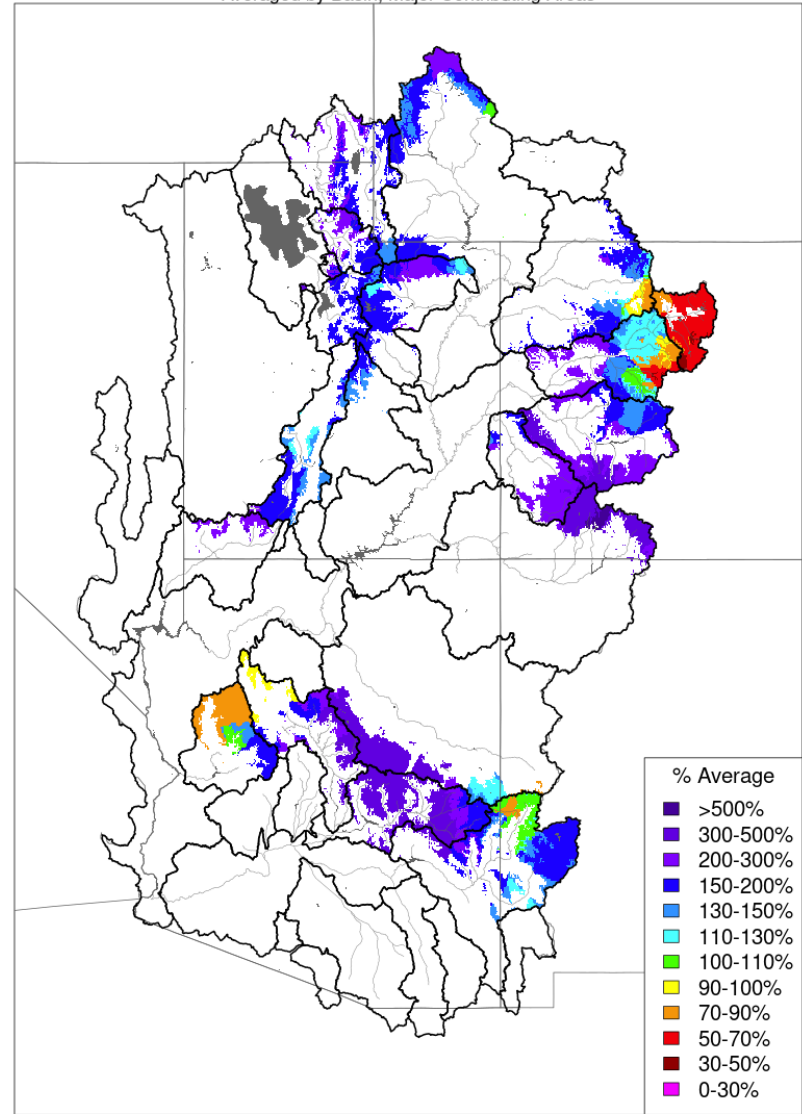
Averaged by Basin, Major Contributing Areas



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Water Year to Date Precipitation, October 01 - October 20 2025

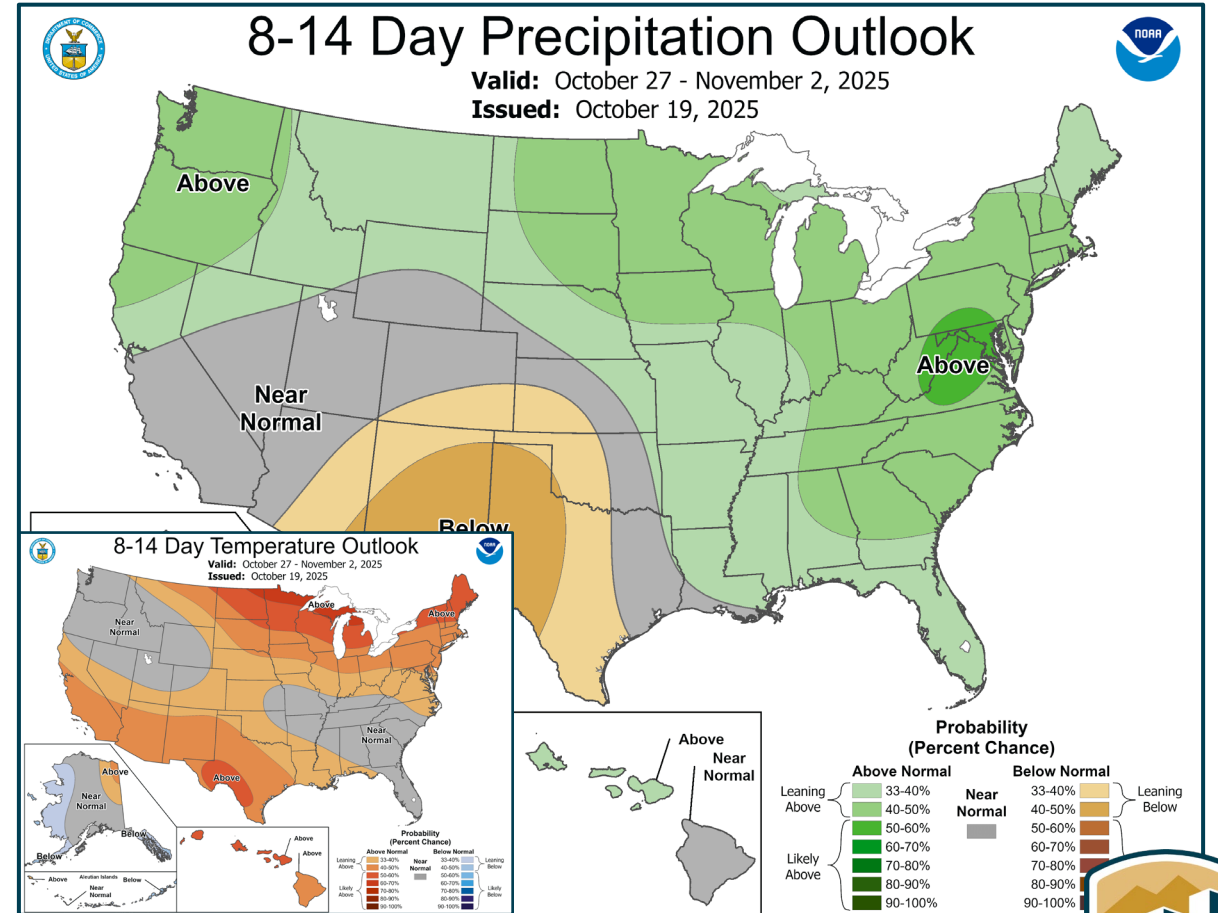
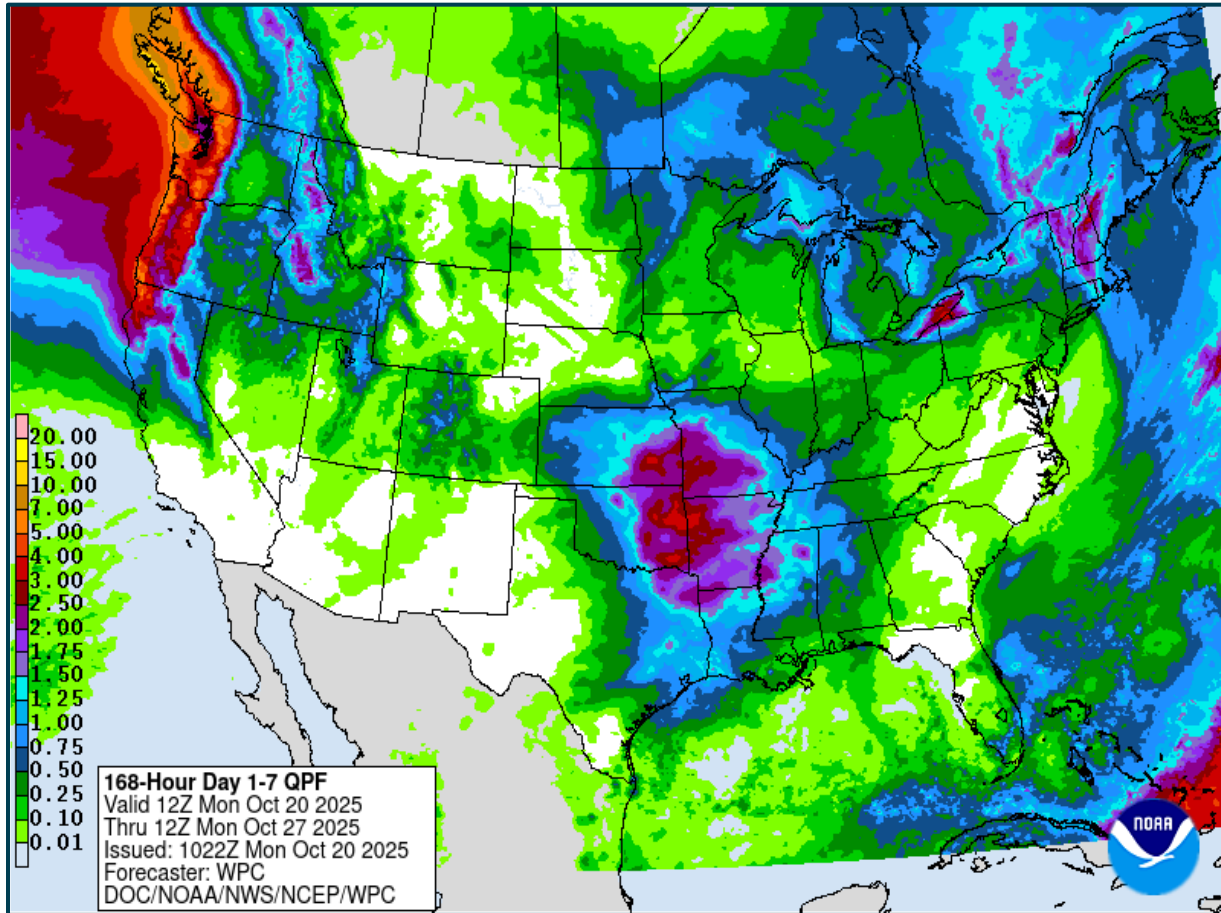
Averaged by Basin, Major Contributing Areas



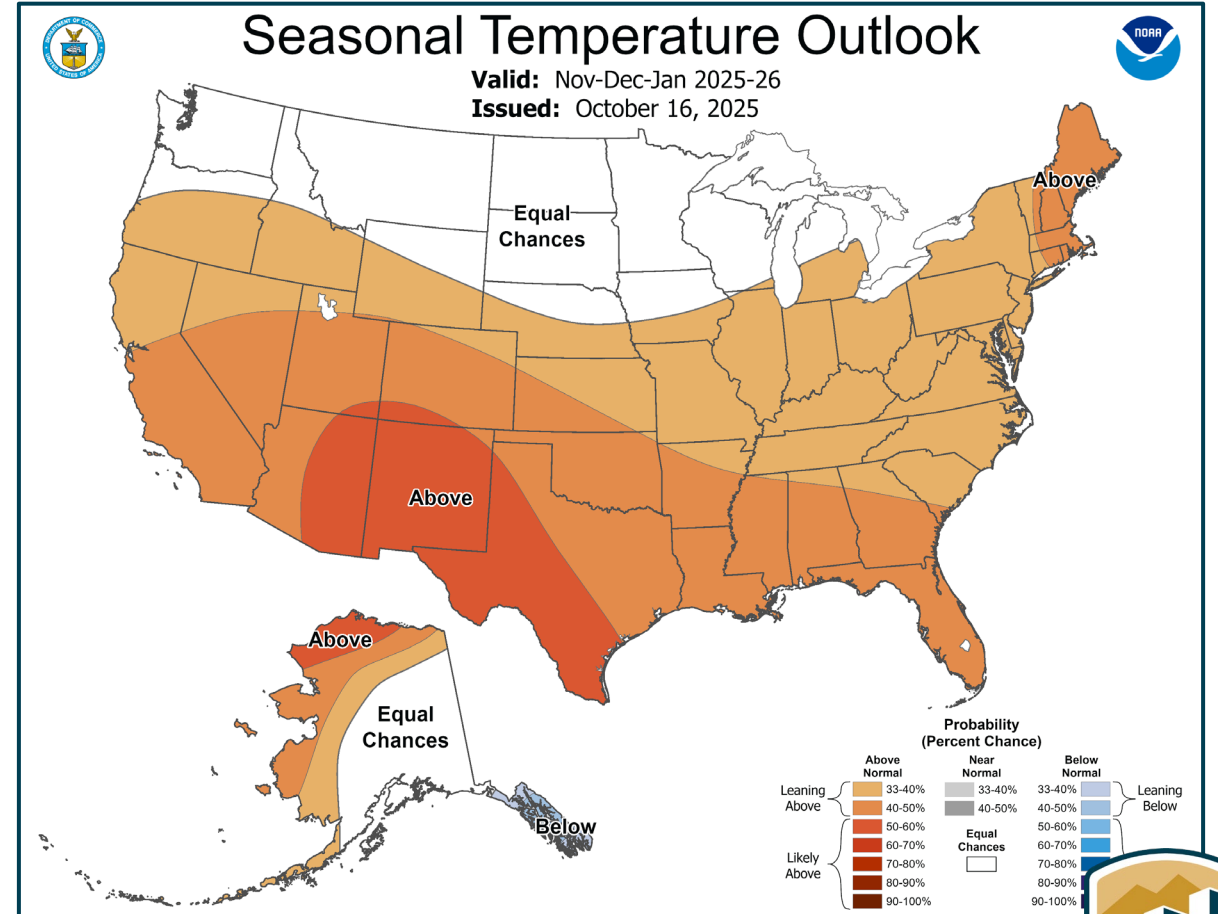
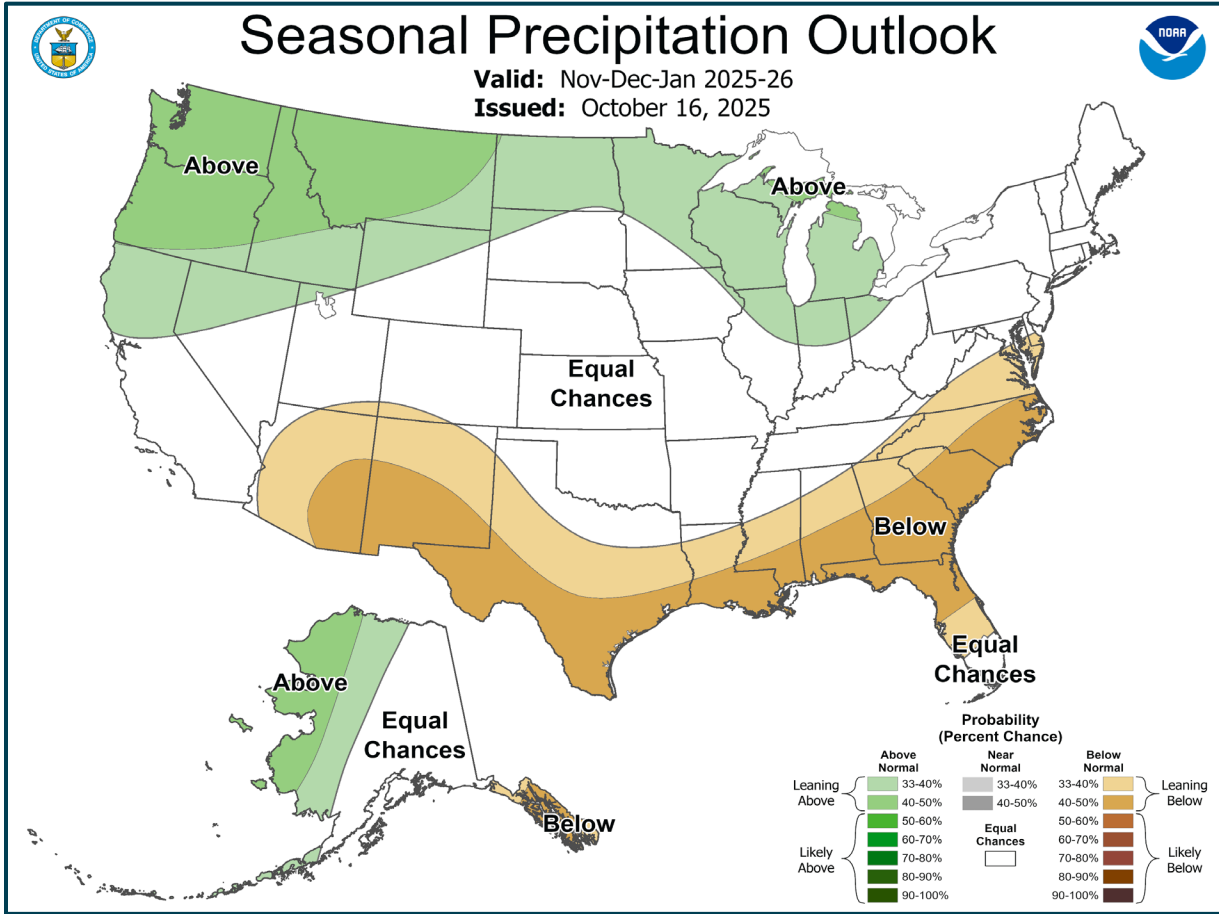
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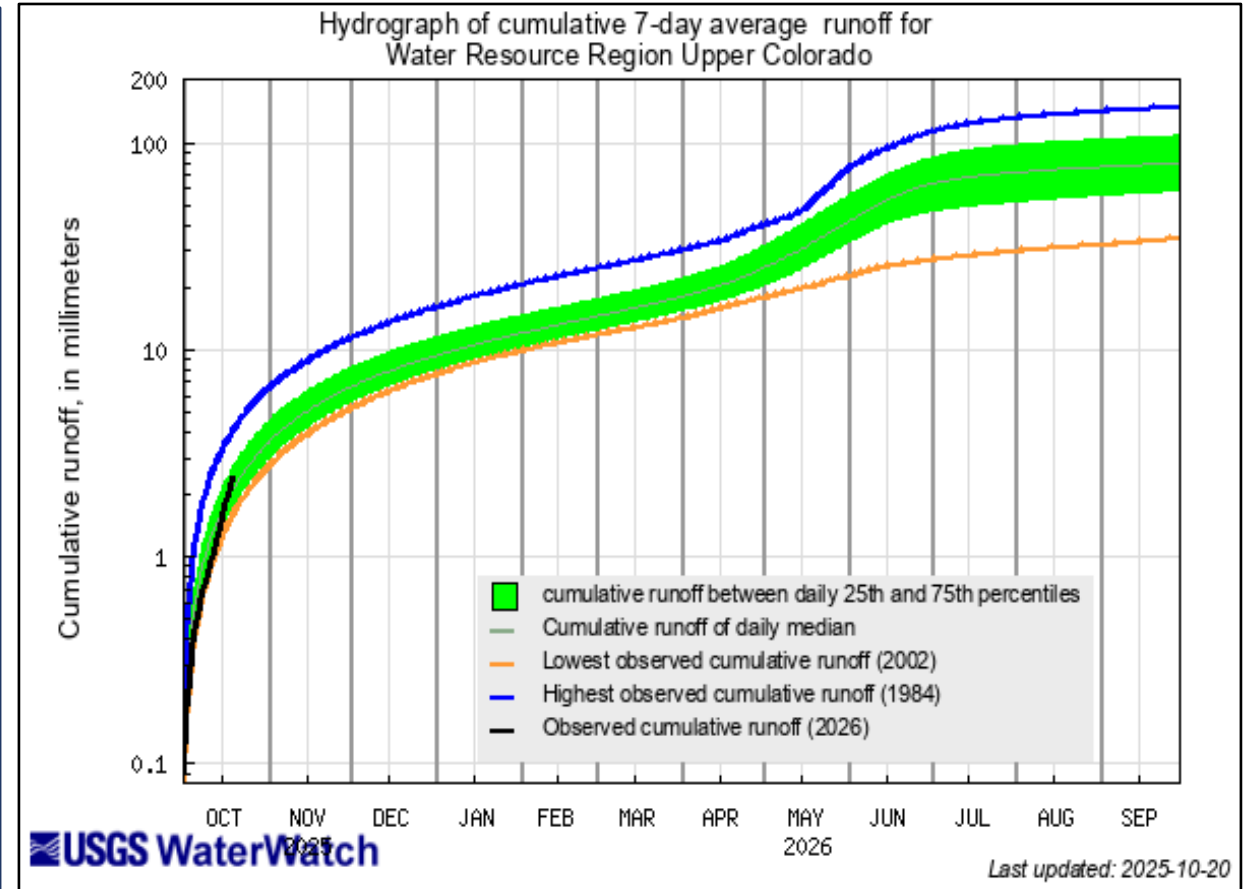
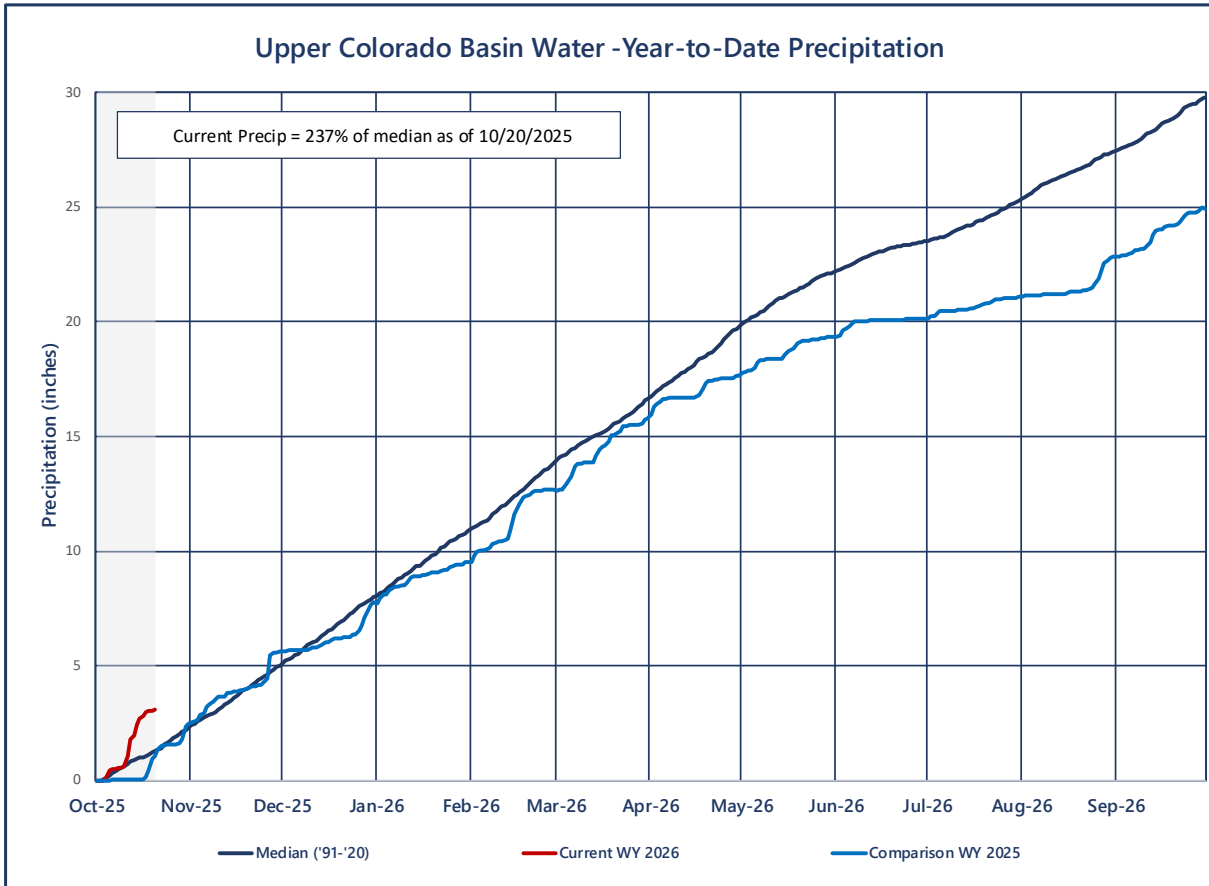
Weather Prediction Center and Climate Prediction Center Precipitation Forecasts



Seasonal Outlook



Upper Colorado Precipitation¹ and Runoff



¹Statistics are based on the 30-year period of record from 1991-2020.



Water Year 2025 – Unregulated Inflow

2025 April – July
Observed Unregulated Inflow

Reservoir	Inflow (kaf)	Change from -	Percent of Avg ¹
Fontenelle	464	-	63
Flaming Gorge	517	-	54
Blue Mesa	409	-	64
Navajo	230	-	37
Powell	2,635	-	41

Water Year 2025
Preliminary Observed Unregulated Inflow
as of September 30, 2025

Reservoir	Inflow (kaf)	Change from Sep. 1	Percent of Avg ¹
Fontenelle	710	-2	66
Flaming Gorge	832	-4	59
Blue Mesa	657	+7	73
Navajo	363	+16	40
Powell	4,688	-8	49

¹Water year statistics are based on the 30-year period from 1991-2020

Most Probable October Forecast Water Year 2026

April – July 2026
Forecasted Unregulated Inflow
as of October 1, 2025

Reservoir	Inflow (kaf)	Change from Sep.	Percent of Avg ¹
Fontenelle	575	-35	78
Flaming Gorge	720	-30	75
Blue Mesa	585	+5	92
Navajo	460	-65	73
Powell	5130	-70	80

Water Year 2026
Unregulated Inflow Forecast
as of October 1, 2025

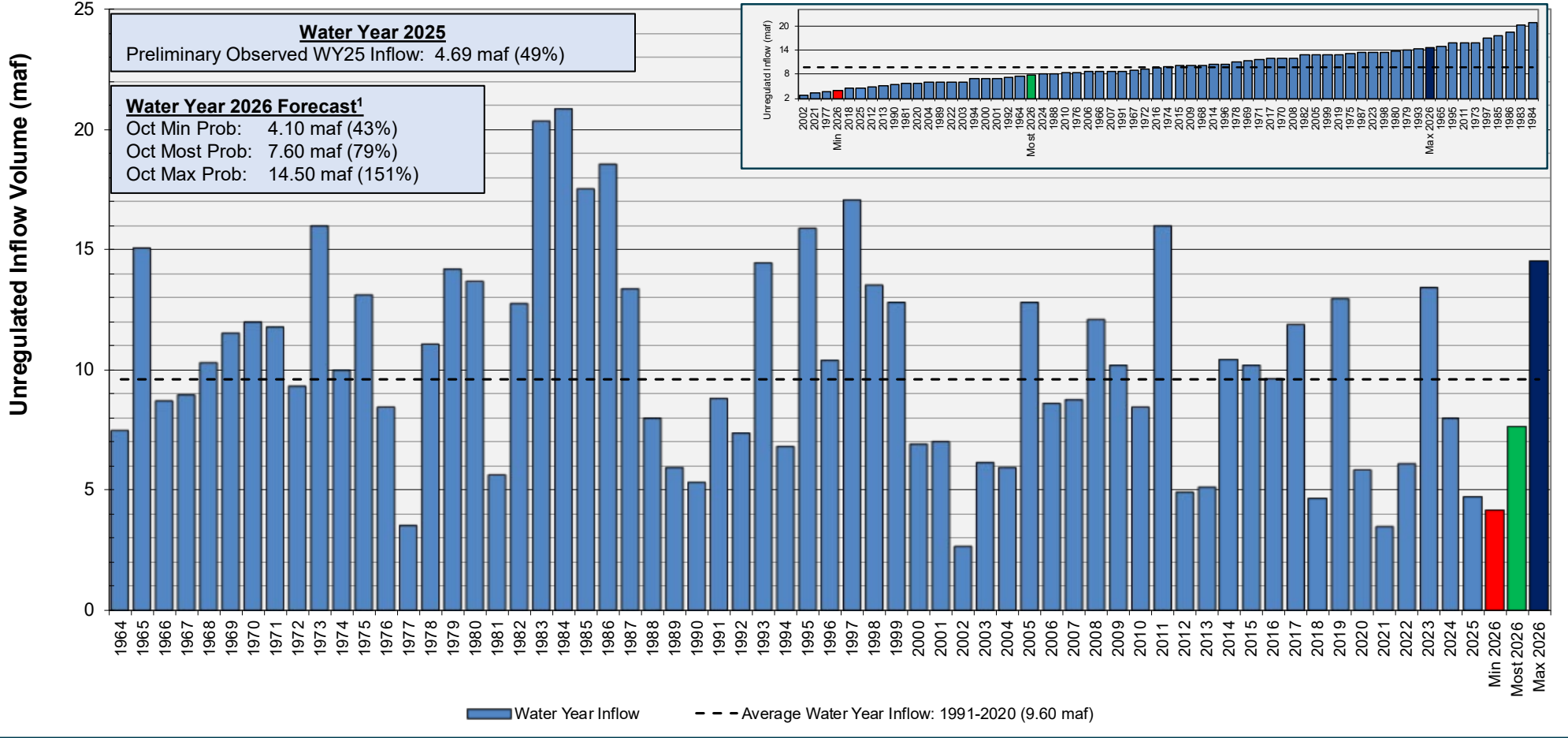
Reservoir	Inflow (kaf)	Change from Sep.	Percent of Avg ¹
Fontenelle	825	-49	77%
Flaming Gorge	1040	-50	74%
Blue Mesa	805	+5	89%
Navajo	645	-65	71%
Powell	7600	0	79%

¹Water year statistics are based on the 30-year period from 1991-2020

Lake Powell Water Year Unregulated Inflow

as of October 1, 2025

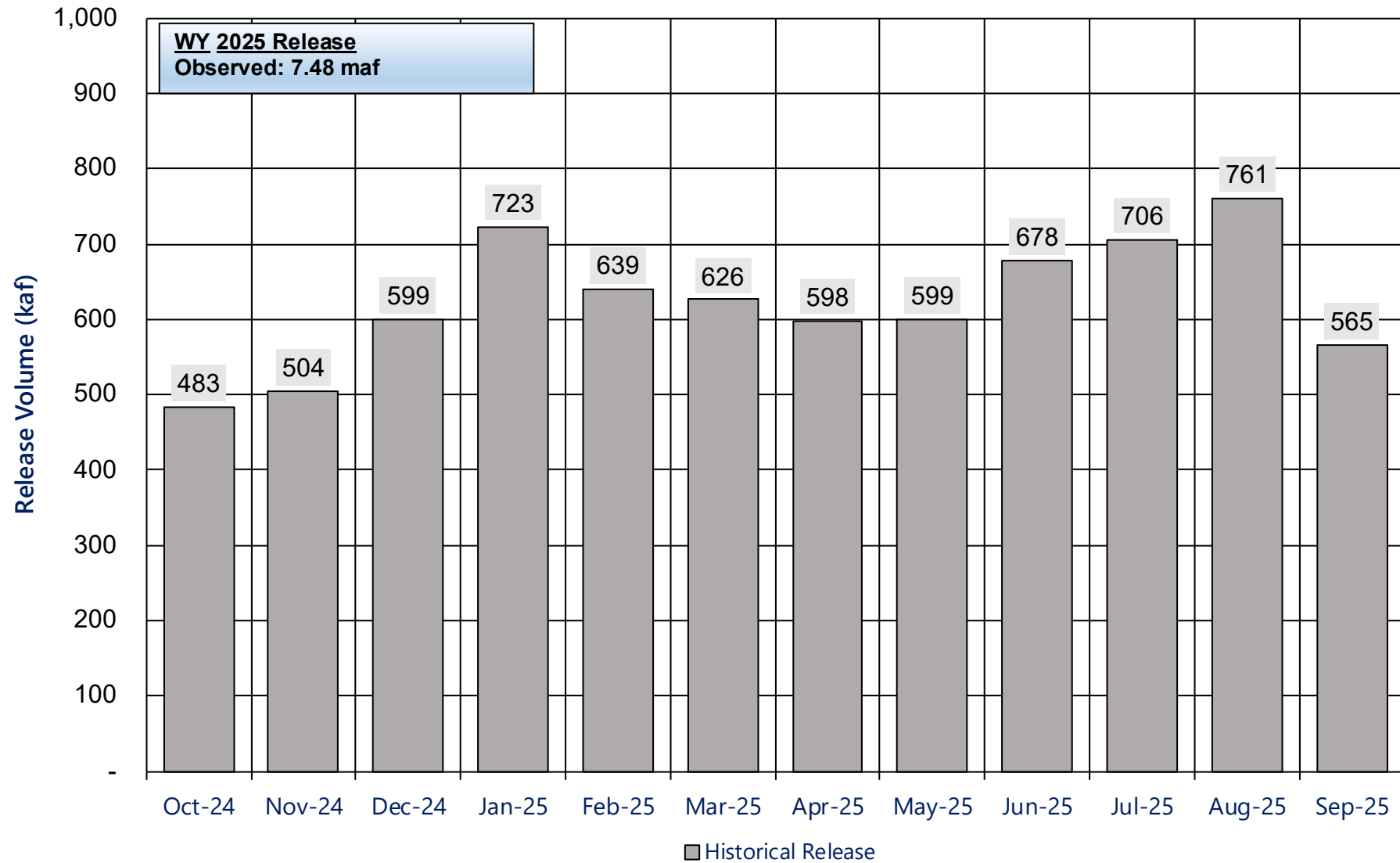
Comparison with History



¹Water Year statistics are based on the 30-year period of record from 1991-2020.



Observed Lake Powell Monthly Release Volume Distribution Releases for Water Year 2025





Upper Colorado Basin

Hydrology and Operations
Projections Based on
October 2025
24-Month Studies



Upper Basin Reservoir Operations

Water Years 2025 and 2026

- Lake Powell will be operated consistent with the 2007 Interim Guidelines, the Upper Basin Drought Response Operations Agreement and Upper Basin Records of Decision
- Lake Powell WY 2026 will operate in the Mid-Elevation Release Tier with a planned release of 7.48 maf
- Includes the Supplemental Environmental Impact Statement for Near-term Colorado River Operations Record of Decision (2024 Near-term SEIS, signed May 6, 2024)
- Includes the Glen Canyon Dam Long-Term Experimental and Management Plan Final Supplemental Environmental Impact Statement (2024 LTEMP SEIS ROD, signed July 3, 2024)
- Reclamation will also ensure all appropriate consultation with Basin Tribes, the Republic of Mexico, other federal agencies, water users and non-governmental organizations with respect to implementation of these monthly and annual operations

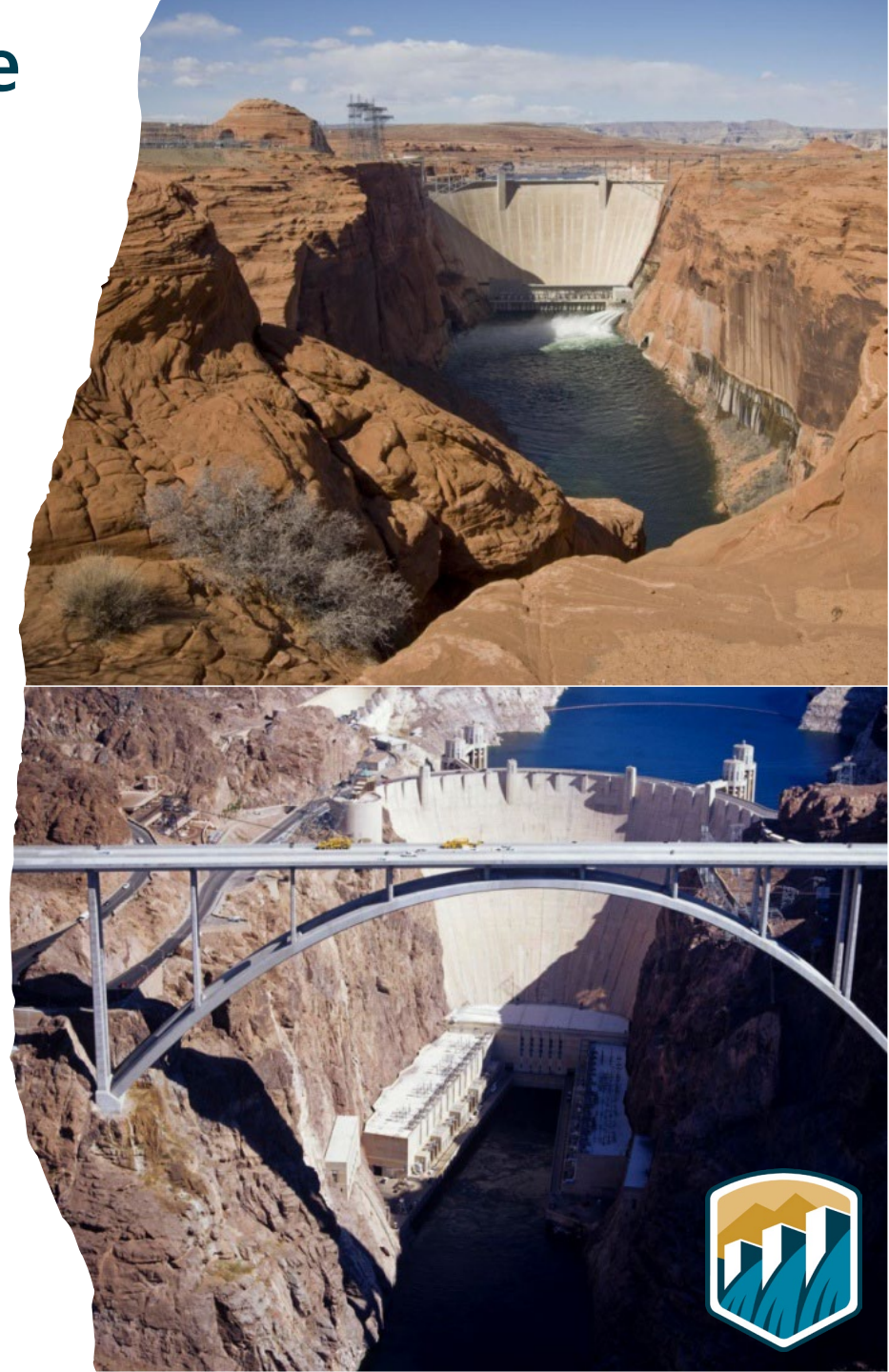


Lake Powell & Lake Mead Operational Table

Lake Powell Operational Tier Determination Run (aka "Exhibit Run")
with an 8.23 maf Release¹

Lake Powell		
Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf)
3,700	Equalization Tier Equalize, avoid spills, or release 8.23 maf	23.31
3,636-3,666 (2008-2026)	Upper Elevation Balancing Tier Release 8.23 maf	14.65-18.36 (2008-2026)
	If Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf	
3,575		8.90
3,532.15 ft <i>Jan 1, 2026 Projection</i>	Mid-Elevation Release Tier Release 7.48 maf; if Lake Mead < 1,025 feet; release 8.23 maf	
	If any minimum probable Lake Powell elevation projection shows Lake Powell < 3,500 feet, begin planning to reduce releases to no less than 6.0 maf	
3,525		5.55
	Lower Elevation Balancing Tier Balance contents with a min/max release of 7.0 and 9.5 maf	
	If any minimum probable Lake Powell elevation projection shows Lake Powell < 3,500 feet, begin planning to reduce releases to no less than 6.0 maf	
3,500		4.22
	The Secretary reserves the right to operate Reclamation facilities to protect the Colorado River system if hydrologic conditions require such action as described in Sections 6 and 7(D) in the 2007 Interim Guidelines ROD	
3,370		0

Lake Mead		
Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf)
1,220	Flood Control Surplus or Quantified Surplus Condition Deliver > 7.5 maf	26.18
1,200 (approx.)	Domestic Surplus or ICS Surplus Condition Deliver > 7.5 maf	23.14 (approx.)
1,145	Normal or ICS Surplus Condition Deliver ≥ 7.5 maf	16.18
1,075		8.60
	Shortage Condition Deliver 7.167 maf	1,055.88 ft <i>Jan 1, 2026 Projection</i>
1,050		
	Shortage Condition Deliver 7.083 maf	
1,025		5.98
	Shortage Condition Deliver 7.0 maf	
1,000	Further measures may be undertaken	4.48
895		0



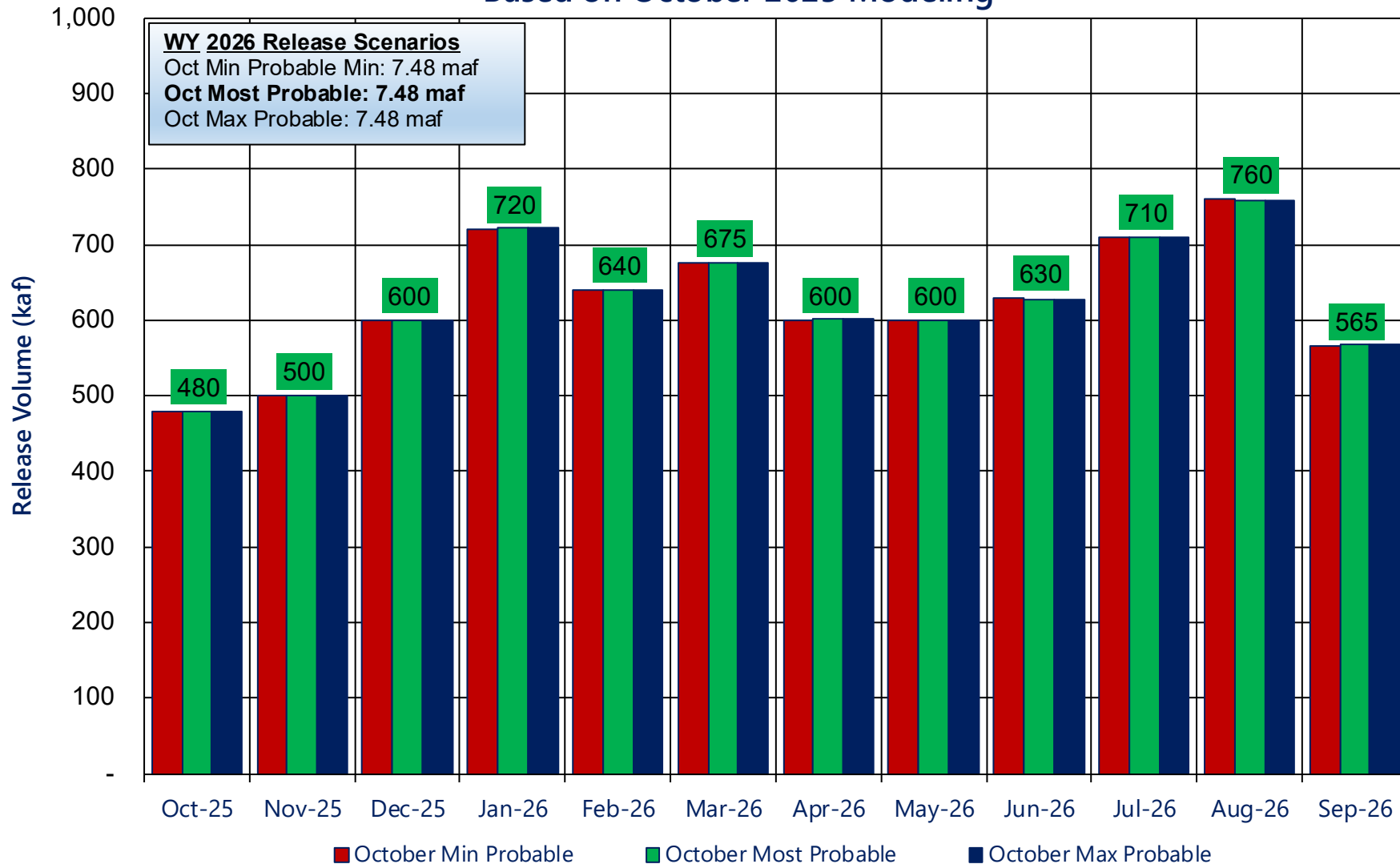
¹ Lake Powell and Lake Mead operational tier determinations will be documented in the draft 2026 AOP.



Potential Lake Powell Monthly Release Volume Distribution

Release Scenarios for Water Year 2026

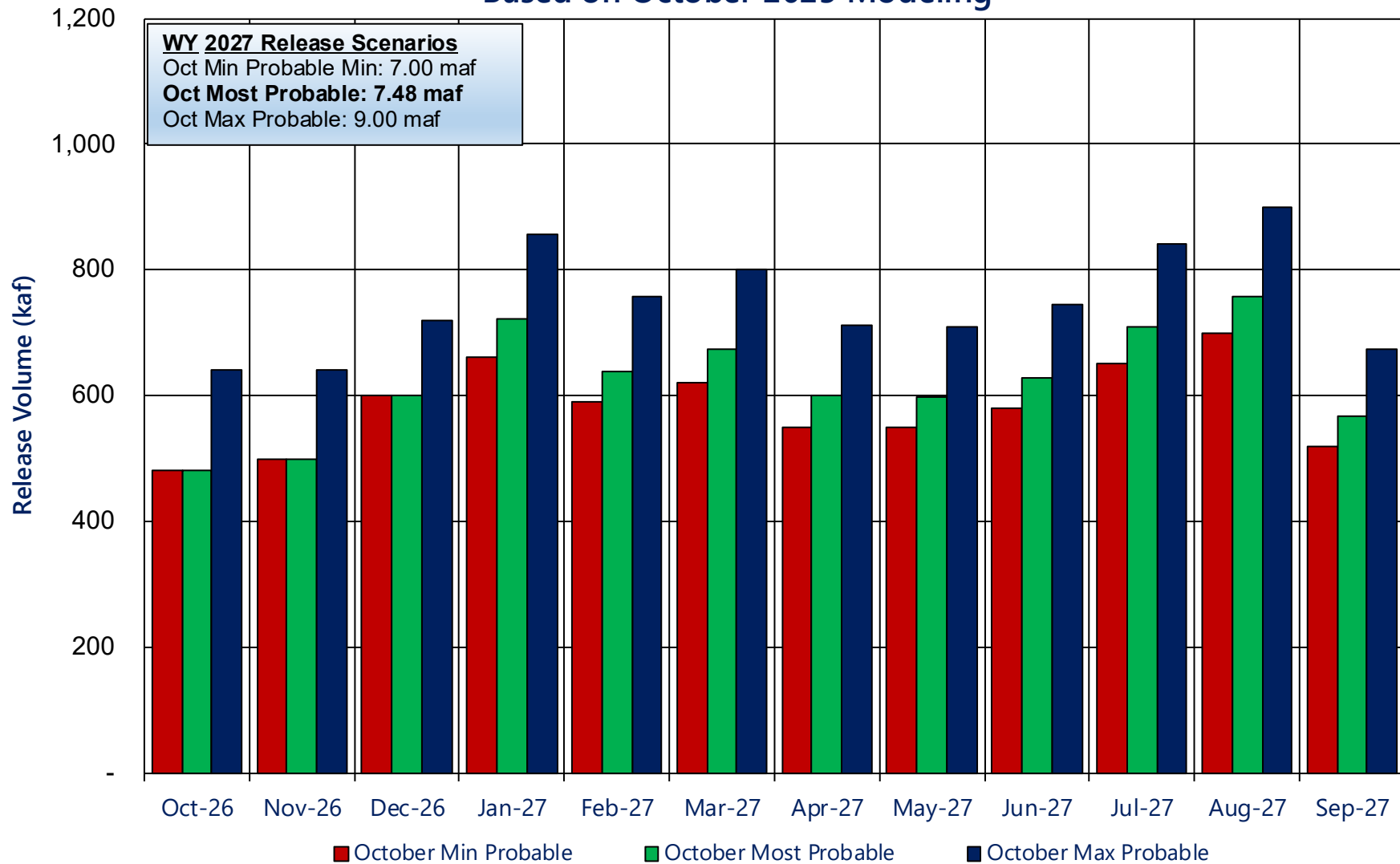
Based on October 2025 Modeling



Potential Lake Powell Monthly Release Volume Distribution

Release Scenarios for Water Year 2027

Based on October 2025 Modeling



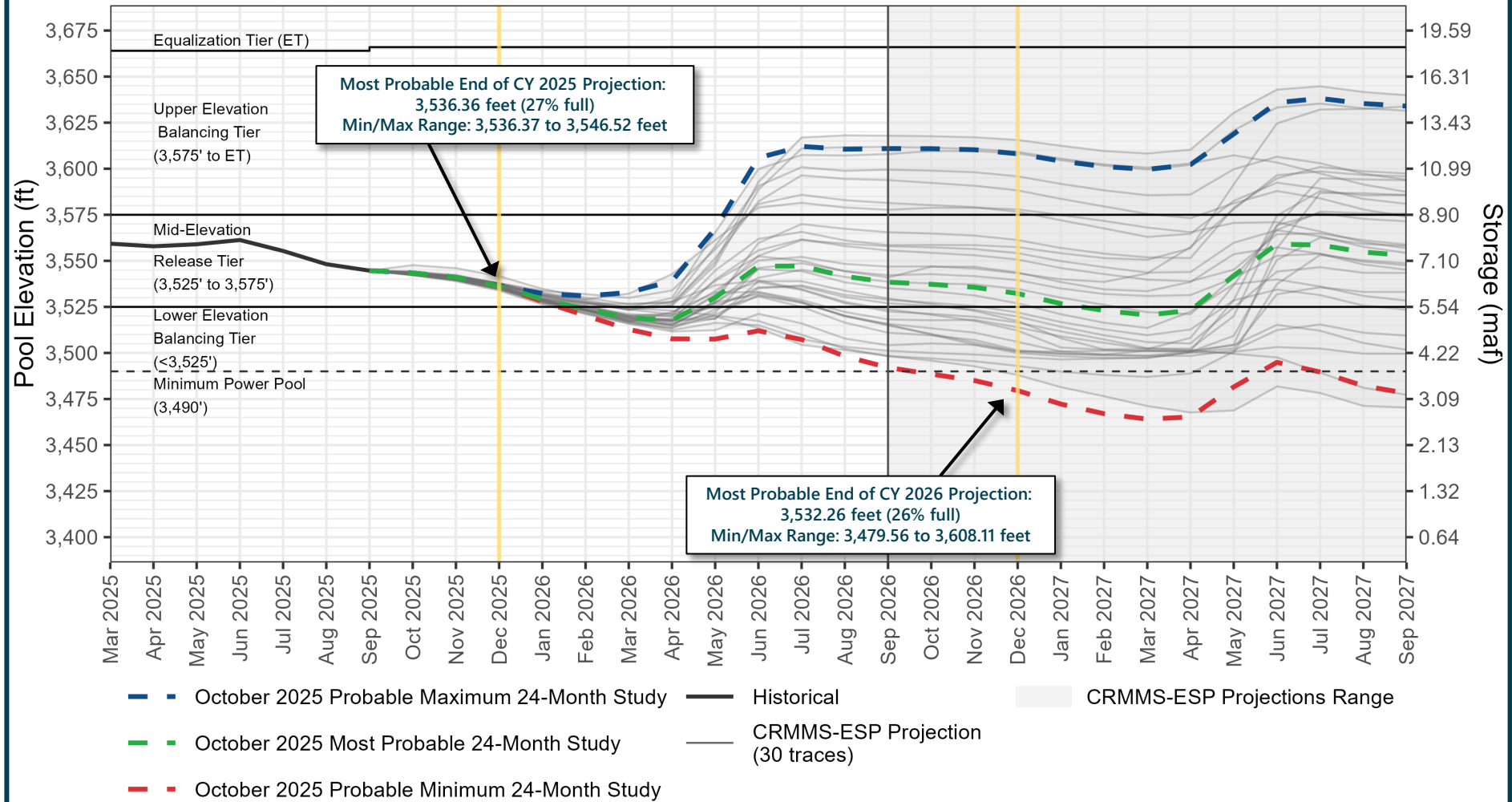
Reclamation Operational Modeling Model Comparison

	Colorado River Mid-term Modeling System (CRMMS)		CRSS
	24-Month Study Mode (Manual Mode)	Ensemble Mode (Rule-based Mode)	
Primary Use	AOP tier determinations and projections of current conditions	Risk-based operational planning and analysis	Long-term planning, comparison of alternatives
Simulated Reservoir Operations	Operations input manually	Rule-driven operations	
Probabilistic or Deterministic	Deterministic – single hydrologic trace	Deterministic OR Probabilistic 30 (or more) hydrologic traces	Probabilistic – 100+ traces
Time Horizon (years)	1 - 2	1 - 5	1 - 50
Upper Basin Inflow	Unregulated forecast, 1 trace	Unregulated ESP forecast, 30 traces	Natural flow; historical, paleo, or climate change hydrology
Upper Basin Demands	Implicit, in unregulated inflow forecast		Explicit, 2016 UCRC assumptions
Lower Basin Demands	Official approved or operational		Developed with LB users



Lake Powell End-of-Month Elevations^{1,2}

CRMMS Projections from October 2025



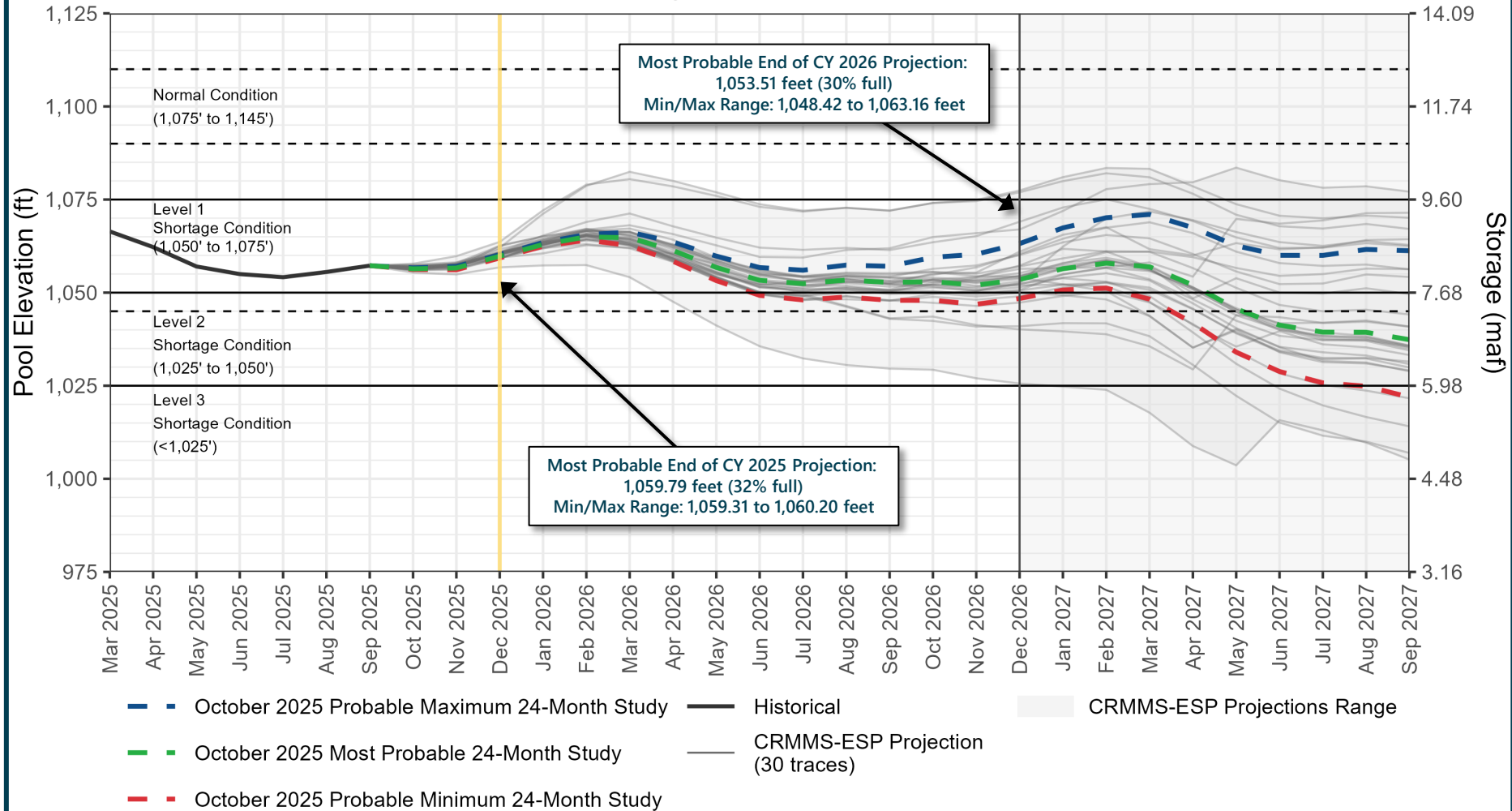
¹For modeling purposes, simulated years beyond 2026 assume a continuation of the 2007 Interim Guidelines including the 2024 Supplement to the 2007 Interim Guidelines (no additional SEIS conservation is assumed to occur after 2026), the 2019 Colorado River Basin Drought Contingency Plans, and Minute 323 including the Binational Water Scarcity Contingency Plan. With the exception of certain provisions related to ICS recovery and Upper Basin Demand management, operations under these agreements are in effect through 2026.

²For modeling purposes, this graphic contains existing operational assumptions built into CRMMS that constrain Glen Canyon Dam releases to prevent Lake Powell from falling below elevation 3,500 feet. As described in Sections 6.E and 7.B of the Supplement to the 2007 Colorado River Interim Guidelines, Reclamation will consider all tools that are available to avoid Lake Powell elevation declining below 3,500 feet and any actual constraining of Lake Powell releases is subject to appropriate consultation between Reclamation and other Basin partners with respect to the implementation of potential releases. The Probable Minimum also shows Lake Mead elevations without any Glen Canyon Dam release constraints so Reclamation and Basin partners can assess the hydrology and be prepared to discuss appropriate solutions.



Lake Mead End-of-Month Elevations^{1,2}

CRMMS Projections from October 2025



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Upper Colorado Basin

Hydropower Maintenance



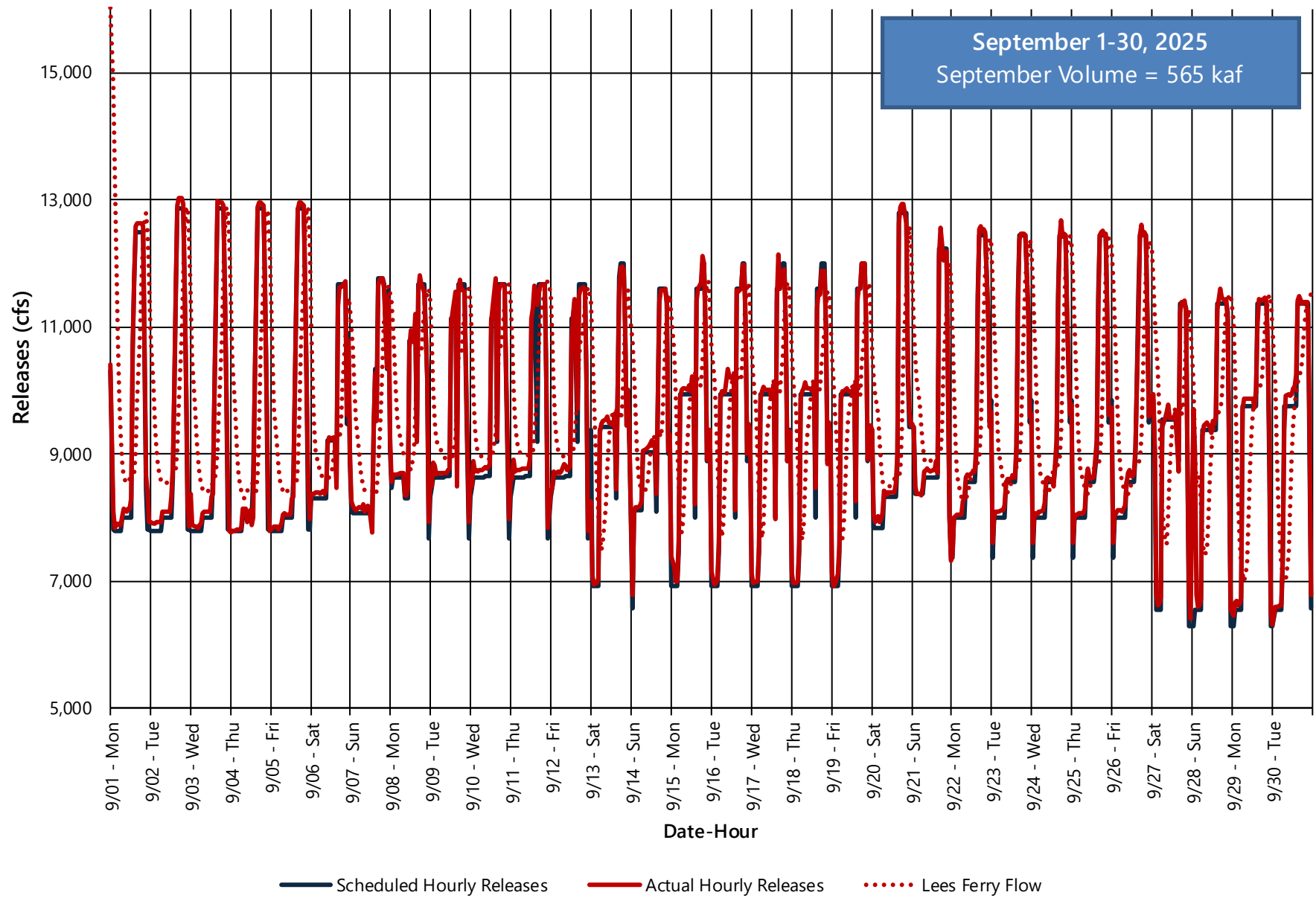
Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2026

Unit Number	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026	Sep 2026	
1													
2													
3													
4													
5													
6													
7													
8													
Units Available	6	6*	8	8	6	6	7	8	8	8	8	6	
Penstock Capacity (cfs)	18,700	19,800*	25,200	18,200	18,000	17,800	17,800	21,600	25,700	25,600	18,600	18,500	Oct MOST ² *Updated after 24MS
Penstock Capacity (kaf/month)	1,190	1,430	1,550	1,450	1,020	1,110	1,300	1,440	1,530	1,580	1,550	1,100	Oct MOST
Max (kaf) ¹	480	500	600	723	639	675	601	599	628	709	758	568	7.48 maf
Most (kaf) ¹	480	500	600	723	639	675	601	599	628	709	758	568	7.48 maf
Min (kaf) ¹	480	500	600	723	639	675	601	599	628	709	758	568	7.48 maf
										(updated 10-20-2025)			

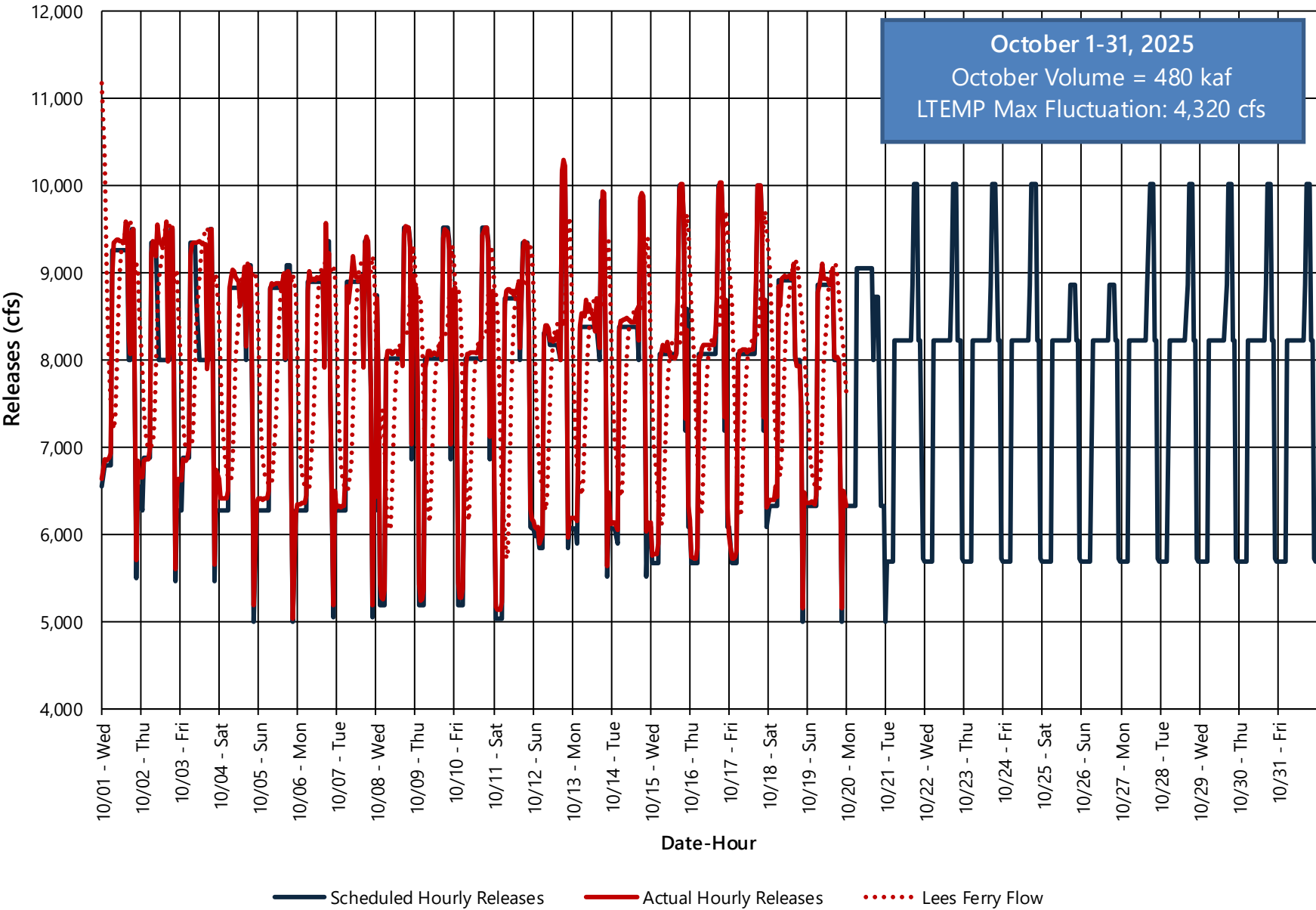
1 Projected release based on October 2025 24-Month Study for the minimum, most, and maximum probable scenarios.

2 Dependent upon availability to shift contingency regulation, which will increase capacity by 30-40MW (3%) at current efficiency.

Glen Canyon Dam Hourly Release Pattern- September 2025



Glen Canyon Dam Hourly Release Pattern- October 2025



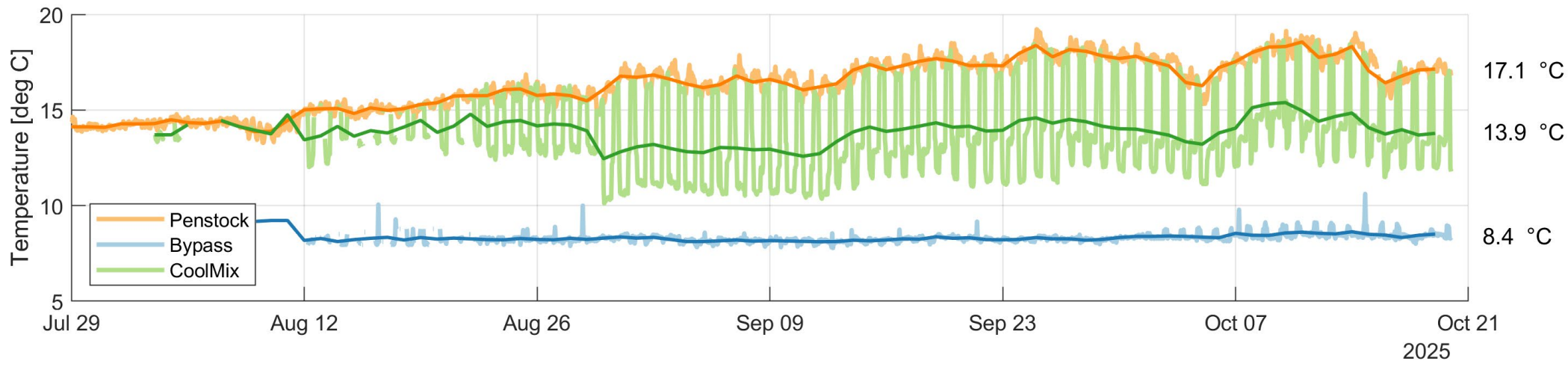
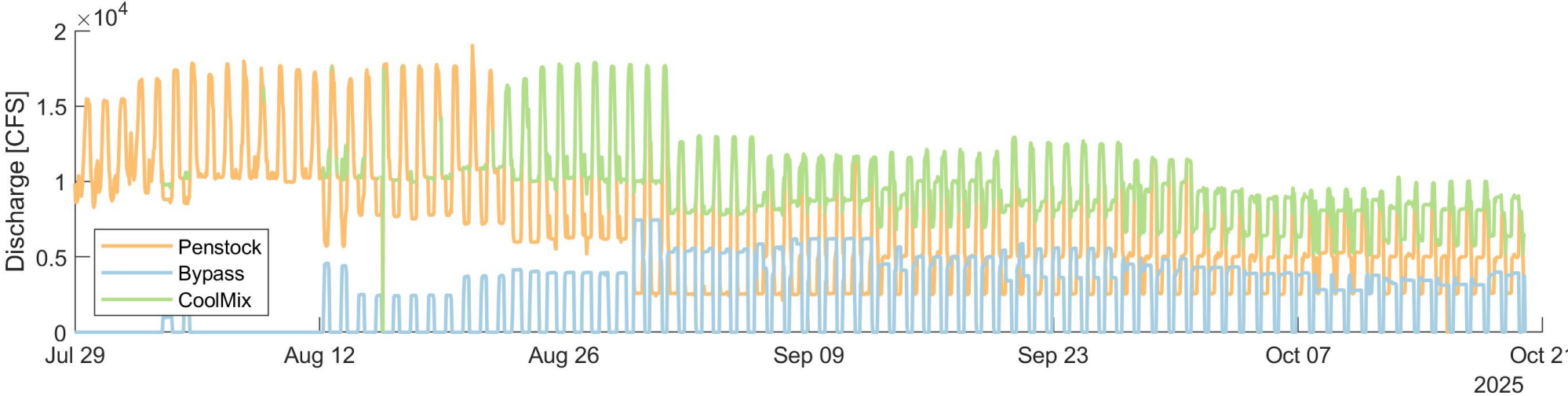


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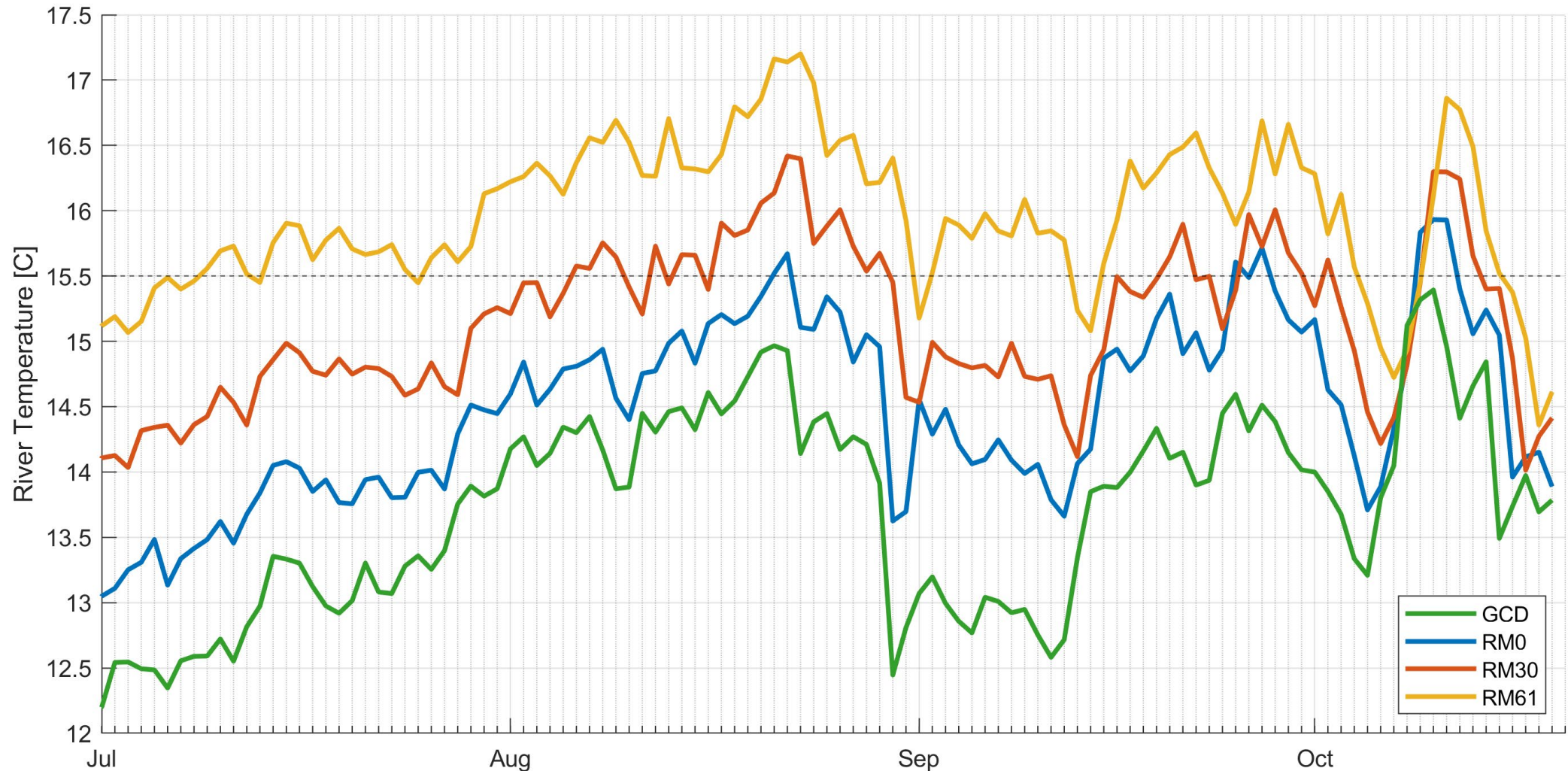
Water Quality Update

10/21/2025

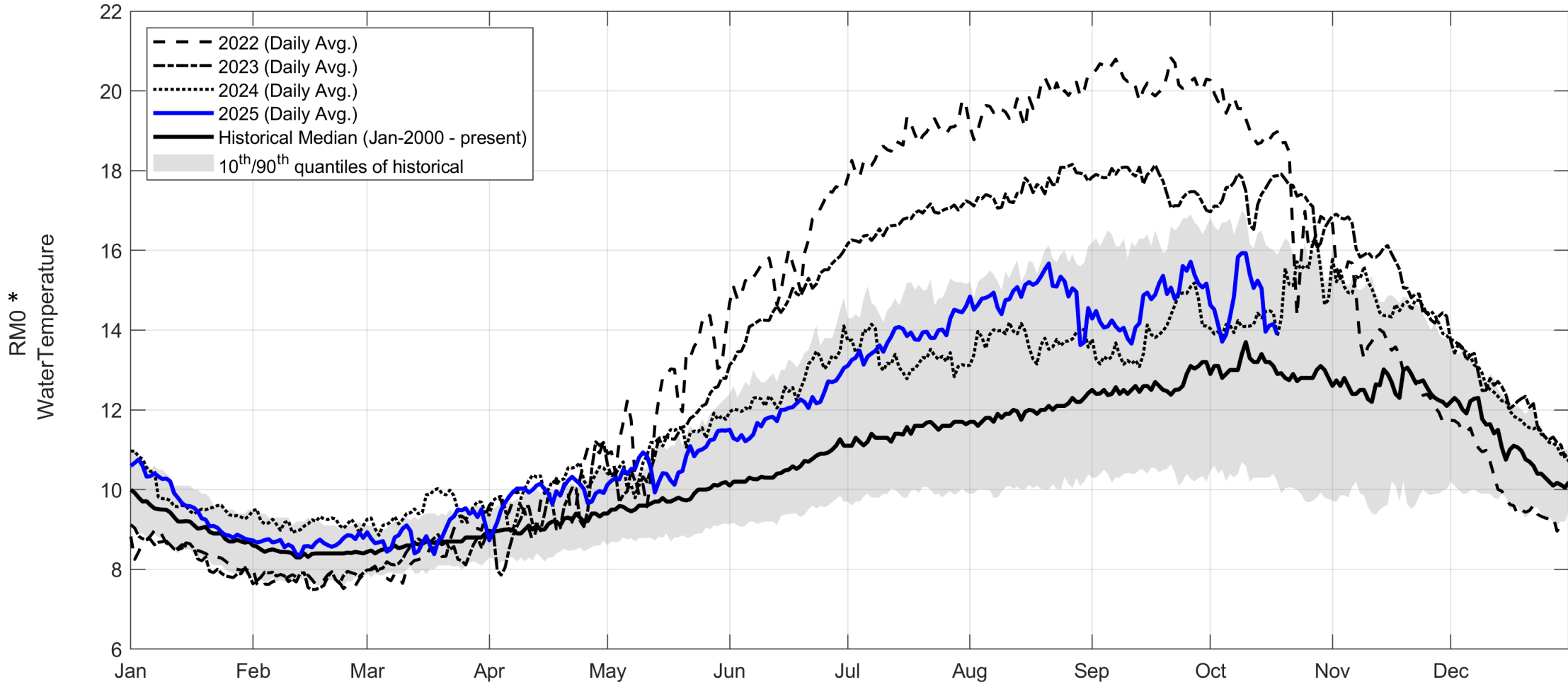
Cool Mix Flow Operations



River Temperature Observations



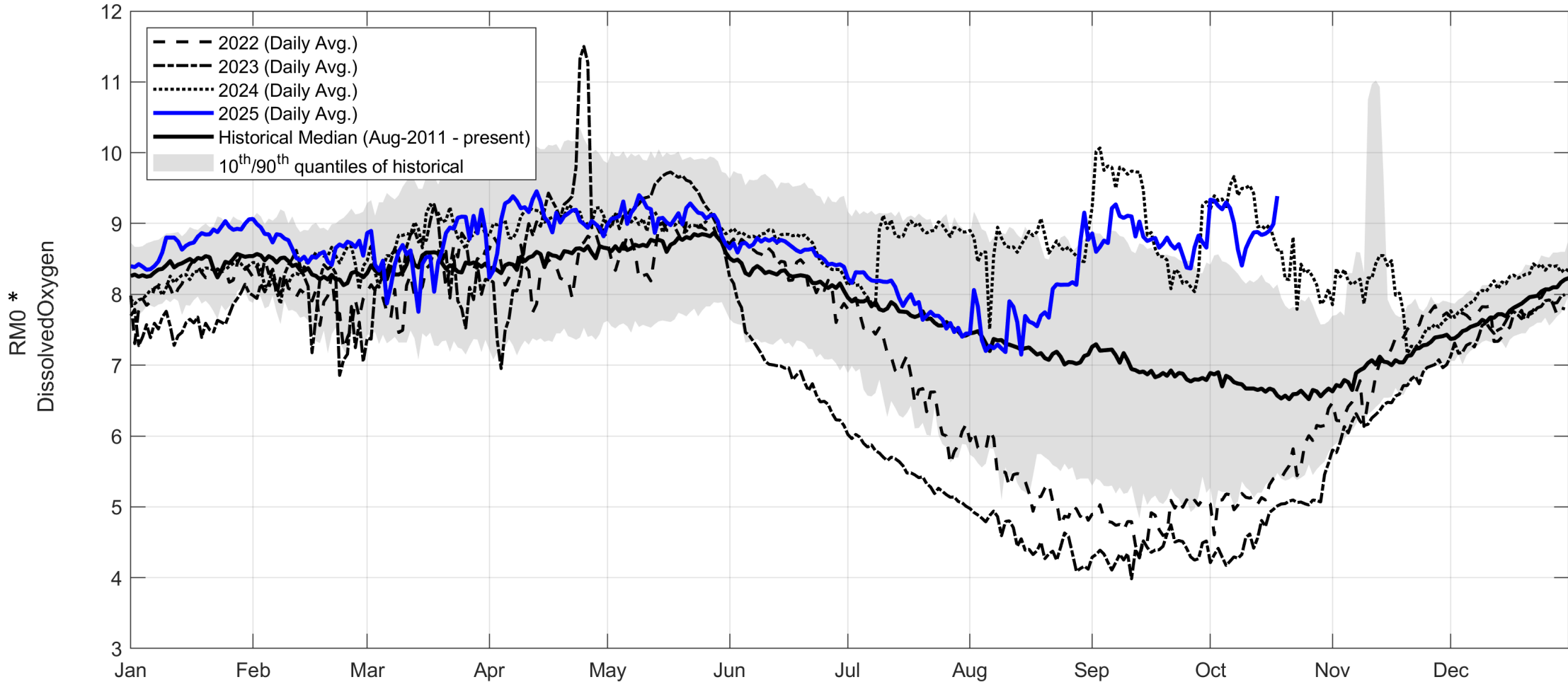
Lees Ferry - Temperature



* Credit to USGS for data. Preliminary, not for citation.



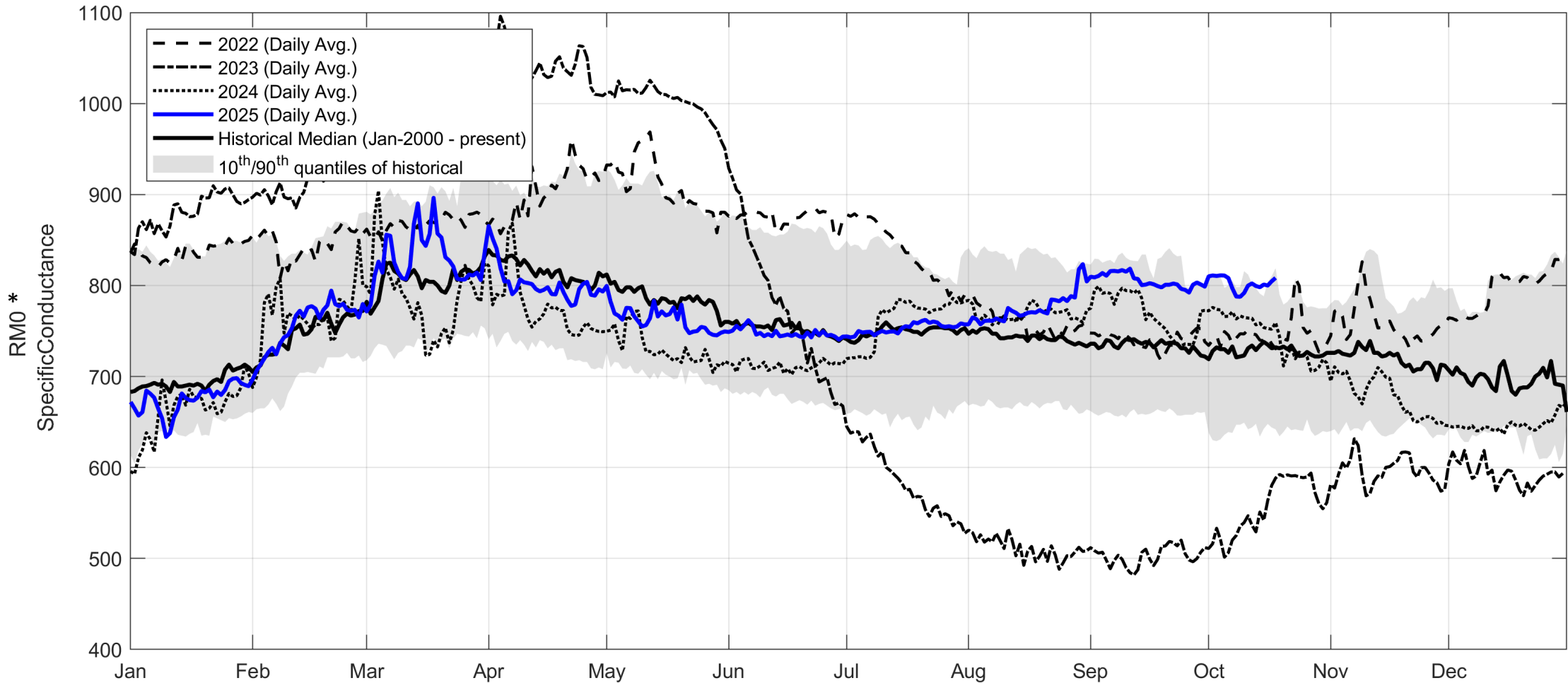
Lees Ferry – Dissolved Oxygen



* Credit to USGS for data. Preliminary, not for citation.



Lees Ferry – Specific Conductance

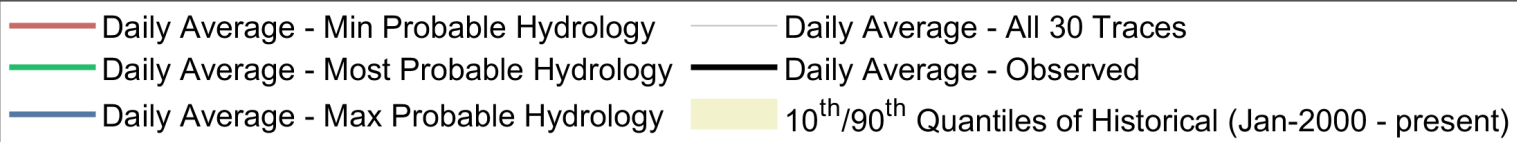
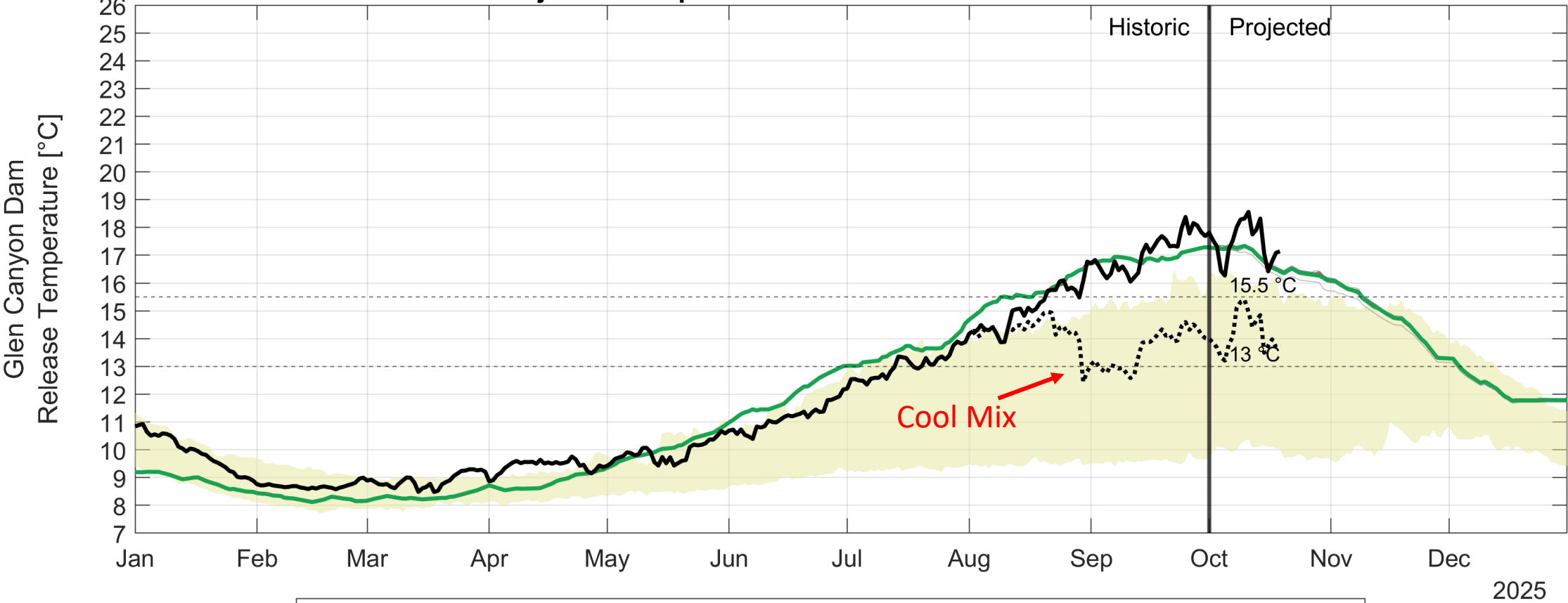


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Glen Canyon Dam Release Temperature (*Eppheimer et al, 2024 model)

Projected Temperature Based on October 2025 Forecast

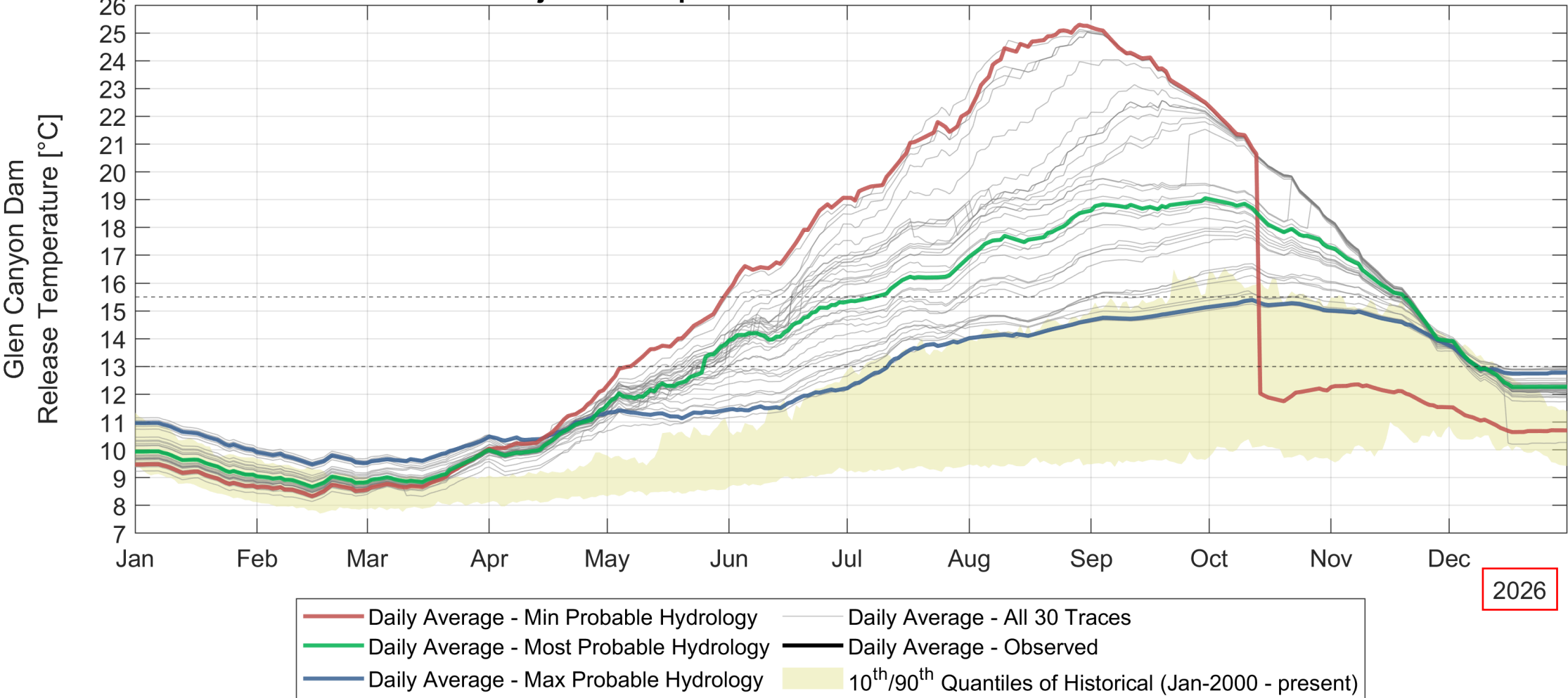


* <https://doi.org/10.1101/2024.01.23.576966>



Glen Canyon Dam Release Temperature (*Eppehimer et al, 2024 model)

Projected Temperature Based on October 2025 Forecast



2026



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Questions?



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