

LOW WATER UPDATE

Inland Waterways Users Board
Meeting #100
July 20, 2023

Patrick Chambers
Chief, Operations & Regulatory
Mississippi Valley Division



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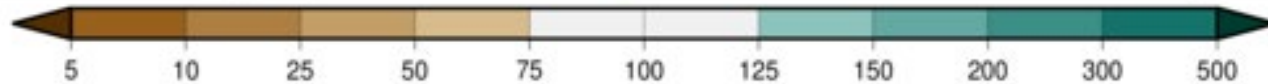
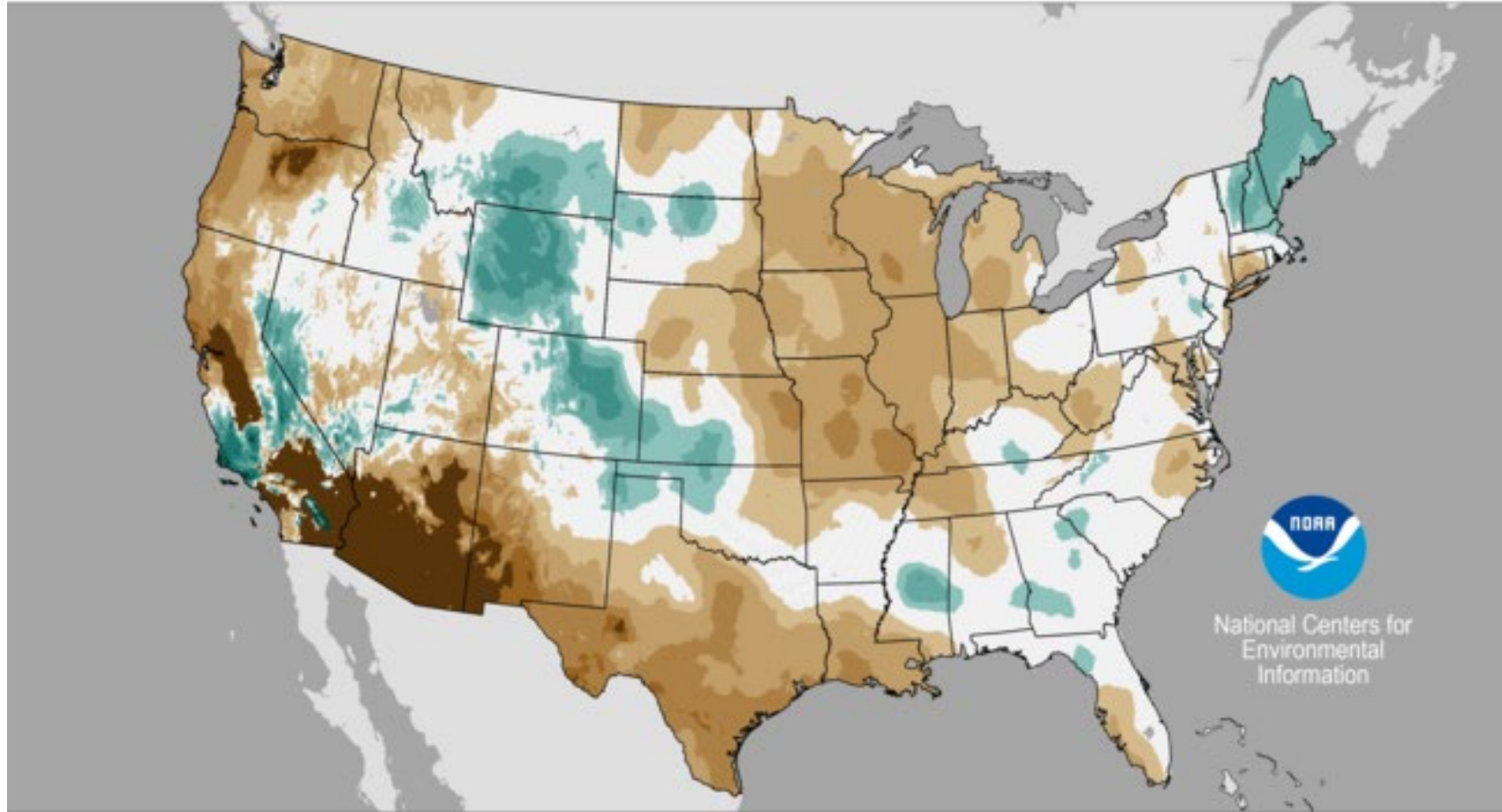




Precipitation Percent of Average

June 01-30, 2023

Base Period: 1991-2020



5 10 25 50 75 100 125 150 200 300 500

Created: Tue Jul 04 2023

Percent

Data Source: nClimGrid-Daily

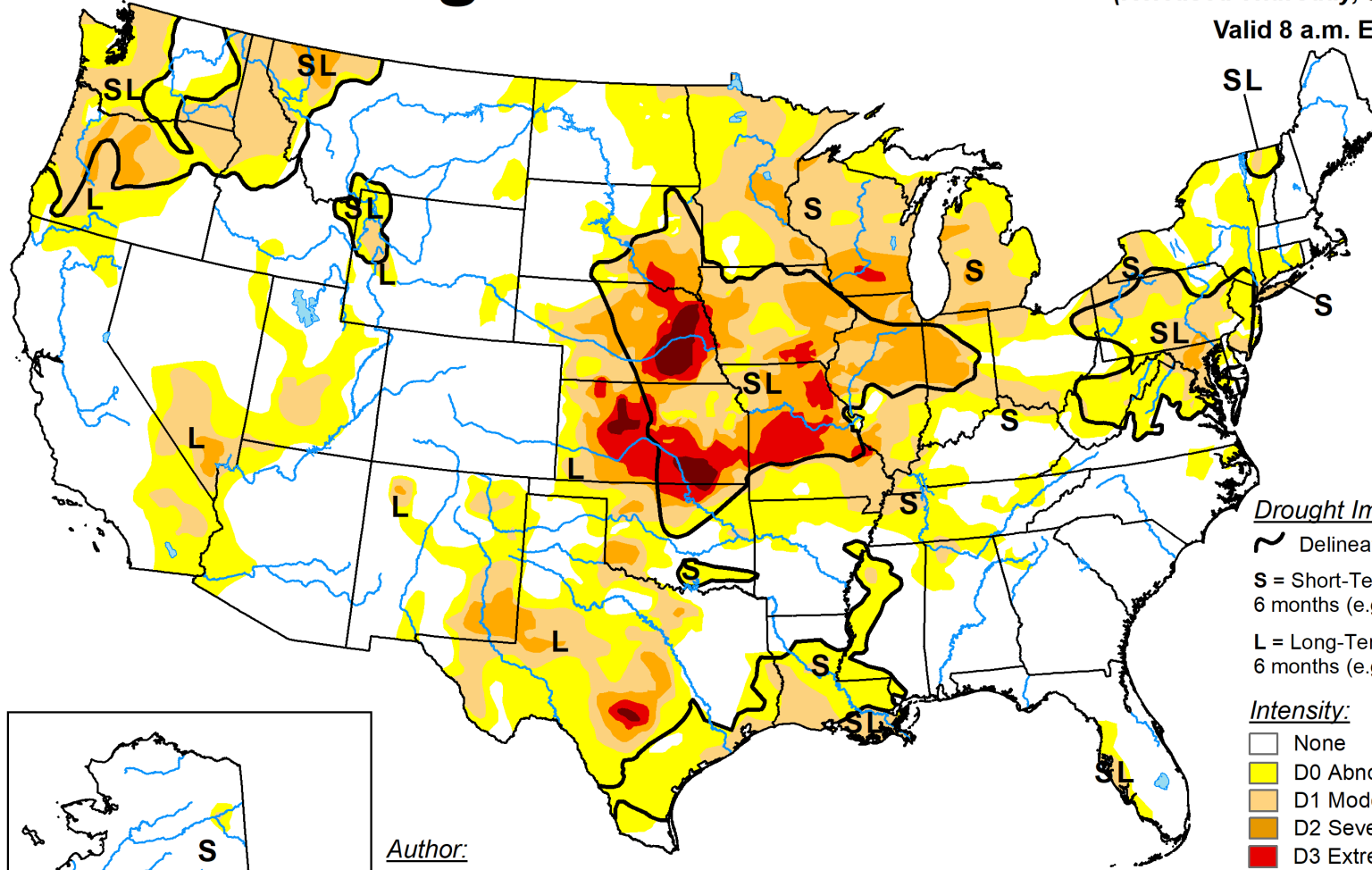


U.S. Drought Monitor

July 4, 2023

(Released Thursday, Jul. 6, 2023)

Valid 8 a.m. EDT

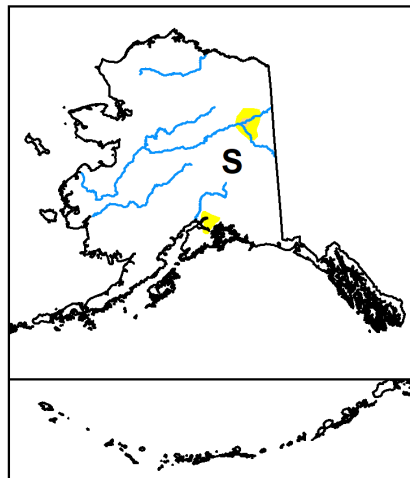


Drought Impact Types:

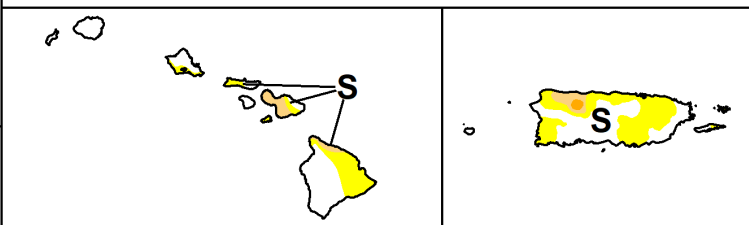
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought



Author:
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National Drought Mitigation Center



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



droughtmonitor.unl.edu



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Current and Forecasted Stages

11 JULY 2023

Forecast Location	Current Stage	28 Day Forecasted Low Stage*	2022 Low Stage	2012 Low Stage	1988 Low Stage	Post 1965 Record Low
St. Louis, MO	1.9'	-2.0'	-3.7 (25-Dec)	-4.4	-3.2	-5.2 (1989)
Cairo, IL	14.6'	7.0'	5.0 (15-Oct)	7.2	4.9	4.9 (1988)
Memphis, TN	1.4'	-8.5'	-10.8 (21-Oct)	-9.8	-10.7	-10.8 (2022)
Vicksburg, MS	12.0'	6.5'	-0.4 (25-Oct)	-1.1	-1.6	-1.6 (1988)
Baton Rouge, LA	8.1'	5.7'	4.2 (21-Oct)	3.4	1.8	1.8 (1988)

***28 Day Forecasted Stages are estimates based on long range precipitation forecasts in addition to various other factors. Therefore, forecasted stages are subject to inherent inaccuracies.**



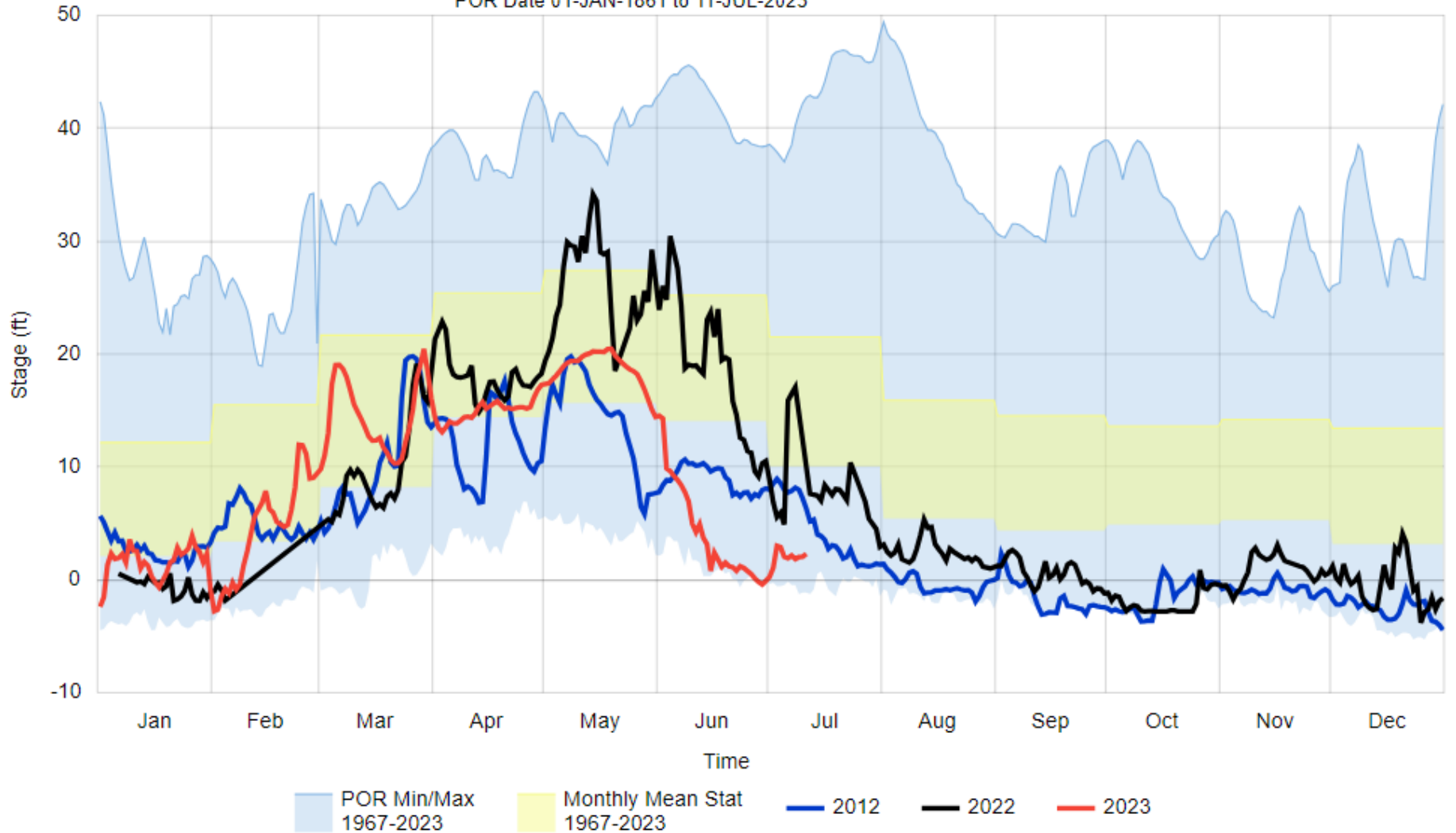
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Mississippi-St Louis (MVDhist-rev)
St Louis-Mississippi.Stage.Inst.~1Day.0.MVDhist-rev
POR Date 01-JAN-1861 to 11-JUL-2023





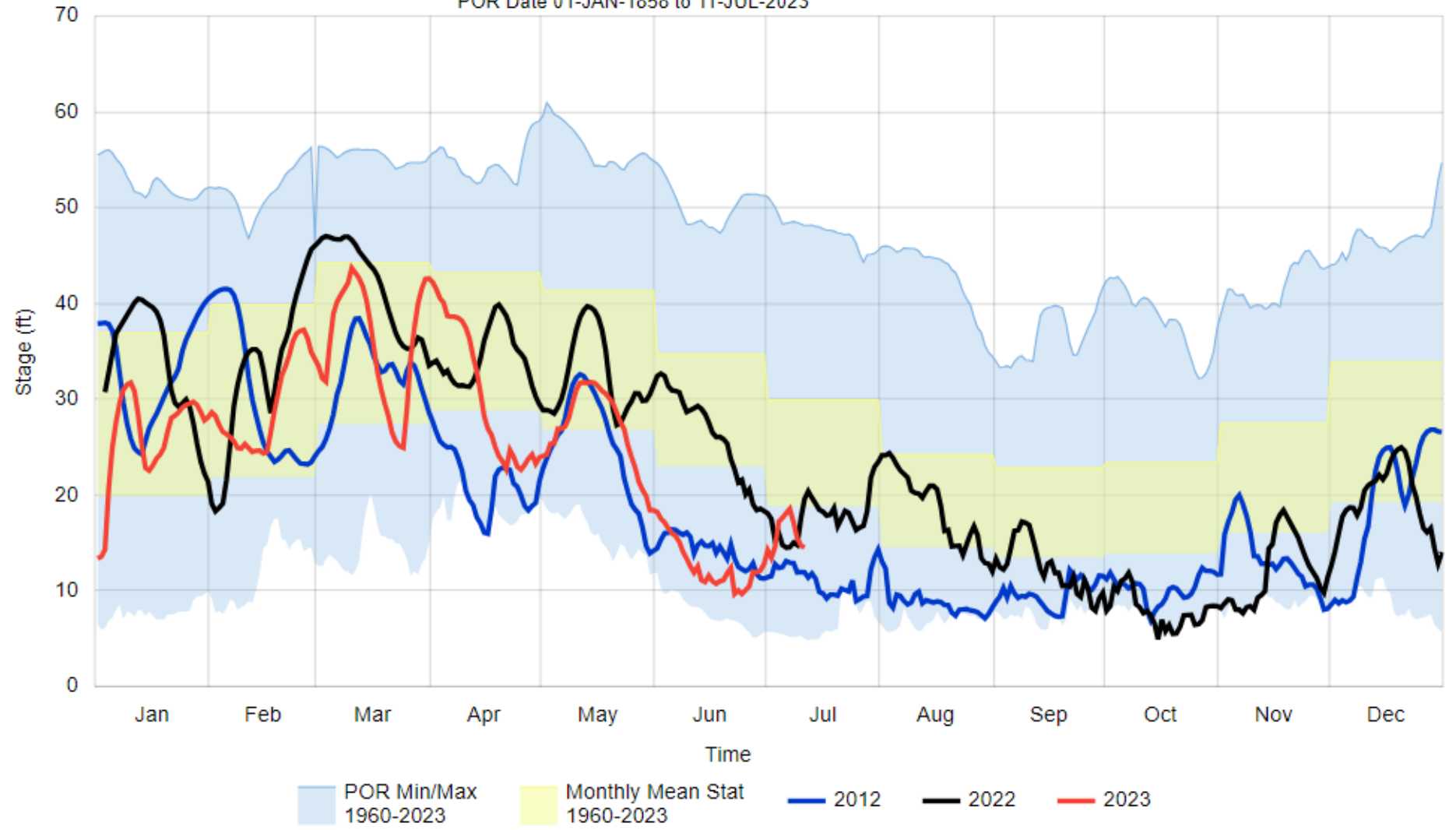
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Ohio-Cairo (MVDhist-rev)
Cairo-Ohio.Stage.Inst.~1Day.0.MVDhist-rev
POR Date 01-JAN-1858 to 11-JUL-2023





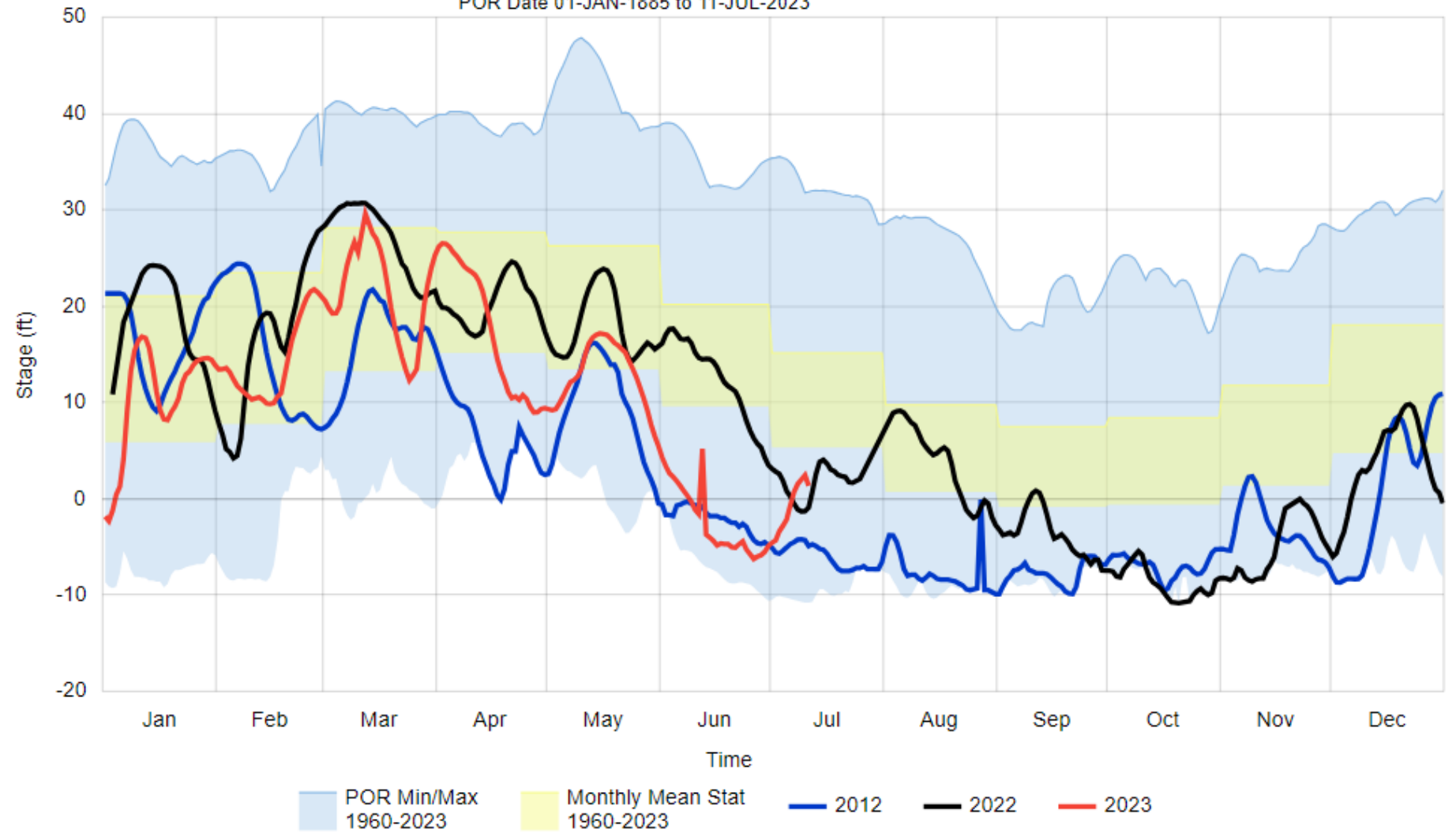
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Mississippi-Memphis (MVDhist-rev)
Memphis-Mississippi.Stage.Inst.~1Day.0.MVDhist-rev
POR Date 01-JAN-1885 to 11-JUL-2023





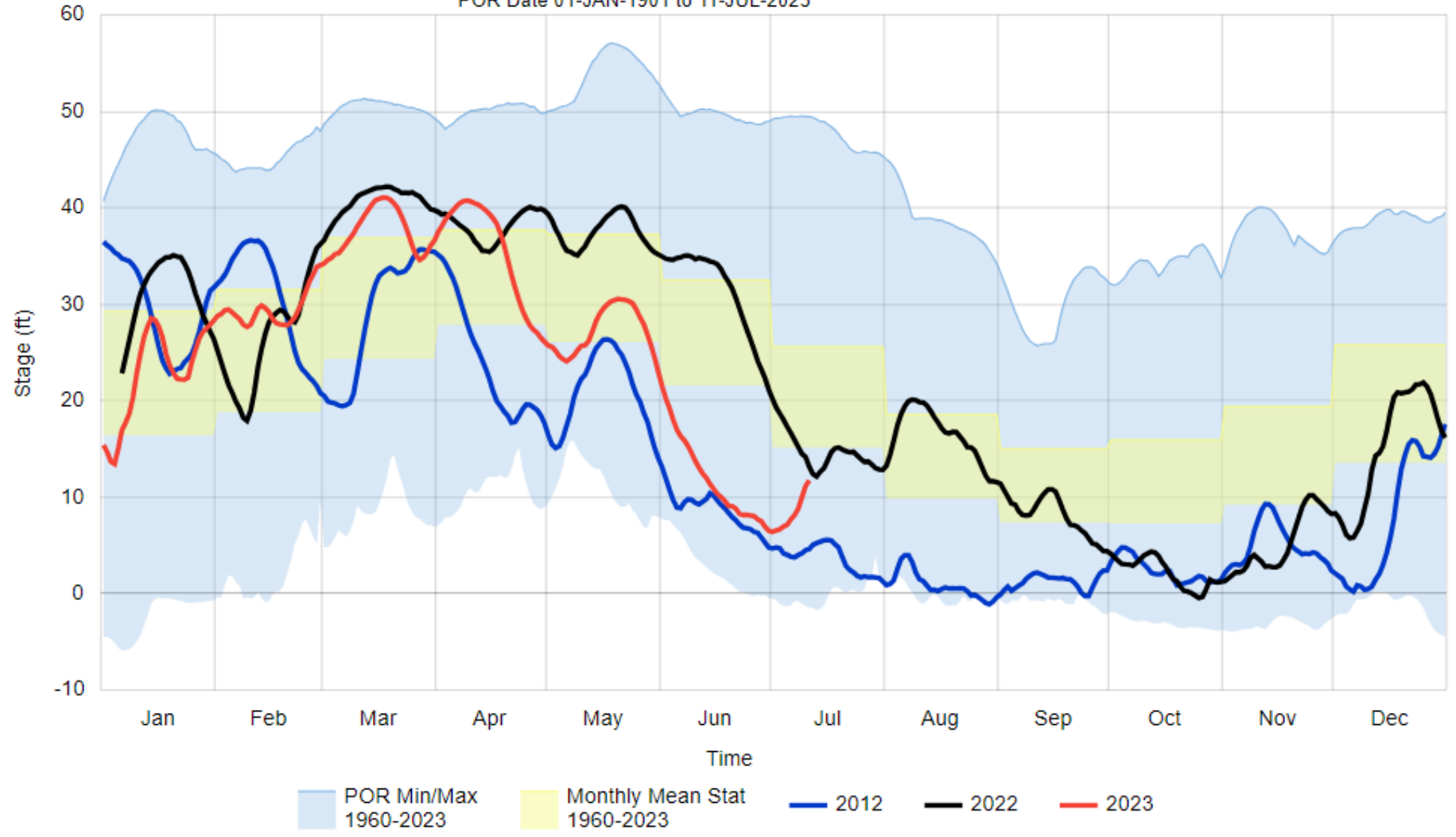
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Mississippi-Vicksburg (MVDhist-rev)
Vicksburg-Mississippi.Stage.Inst.~1Day.0.MVDhist-rev
POR Date 01-JAN-1901 to 11-JUL-2023





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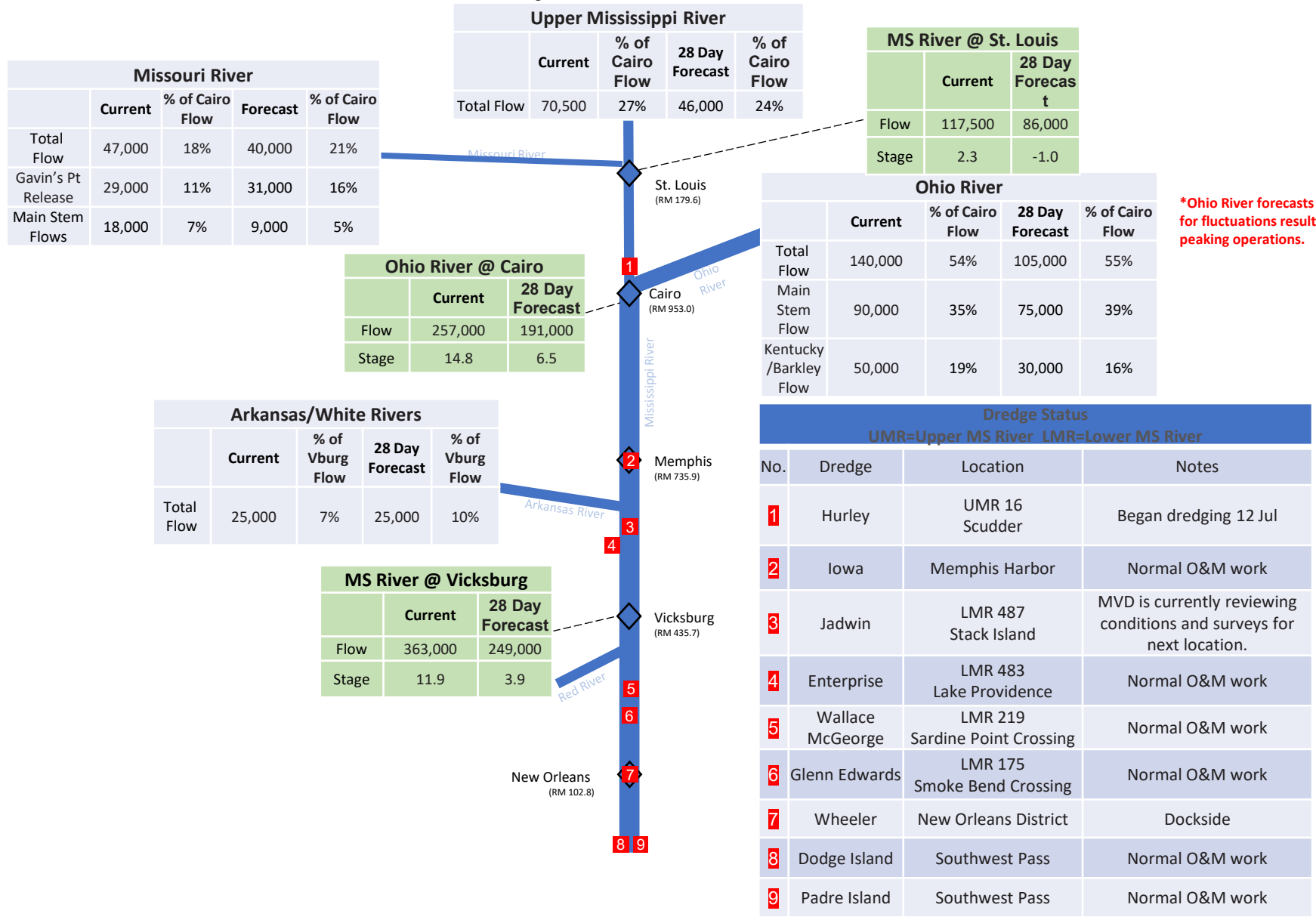
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MS VALLEY LOW FLOW STATUS

11 JULY 2023

- Graphic below describes flows on each of these systems that are supplying flow to the mainstem Mississippi River
- Also included are current active dredge locations



*Ohio River forecasts do not account for fluctuations resulting from TVA peaking operations.



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KEY POINTS

11 JULY 2023

- 17 Dredges Operating throughout the system:
 - 7 Mechanical on Upper Miss (4 contract, 3 government)
 - 1 Government Cutterhead on Upper Miss (GOETZ)
 - 2 Government Dustpans on Upper Miss (HURLEY, POTTER 16 JUL)
 - 1 Government Dustpan on Lower Miss (JADWIN)
 - 2 Contract Cutters (Harbors-Memphis, Vicksburg)
 - 1 Contract Dustpan on Lower Miss (WALLACE McGEORGE - Deep Draft)
 - 3 Contract Hopper on Lower Miss (1-Deep Draft crossings and 2-SWP)

- USACE and TVA continue to have constant communications to try to mitigate oscillations in stage and flow below Olmsted. TVA has agreed to optimize operations as conditions allow. Drawdowns to winter pool of both Barkley and Kentucky reservoirs began the week of 6 JUL and should provide some additional flow to the Lower Ohio and Lower MS Rivers. These drawdown operations will last until early October pending rainfall.

- Beginning the end of June, flow conditions in the MS River at New Orleans became low enough that New Orleans District Engineering Division recommended construction of the saltwater barrier sill. MVN secured a dredge contract to construct the sill and work began sill construction on 11 July, with estimated completion NLT 04 Aug 2023.

- Vicksburg and Memphis Districts are each acquiring 1 additional contract cutterhead dredge for harbor dredging efforts. These additional dredges should be under contract within the next 30 days.

- As of 11 July 2023, the Jadwin has worked for 5 days in MVM and 24 days in MVK. MVP has worked more than expected by dredging 24 hours/day rather than 12hours/day.

- Communication on low water conditions are through bi-weekly meetings with the Lower Mississippi River Committee (LOMRC), as needed meetings with the River Industry Action Committee (RIAC) and River Industry Executive Task Force (RIETF), and weekly meetings between the MVD Districts to prioritize dredging projects.

*Low Water Reference Plane - The Low Water Reference Plane (LWRP) on the Mississippi River is used to establish the crown elevation for dikes, revetments, dredge cuts, and other engineering works. It is also used by navigation interests to obtain a general understanding of the depth of water available at critical locations in the river.



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ADDITIONAL HIGHLIGHTS

11 JULY 2023

- Work to minimize stage fluctuations at Cairo
 - Daily coordination calls with LRD and TVA when Cairo is @ 14 ft and falling
- Tracking funds
 - Working daily burn rates vs 'on-hand' funding to inform HQ of any additional needs
- Currently working "Low Water Action Plan" in coordination with industry
 - For review with Industry Partners, USCG, other agencies as appropriate by September 2023
- Weekly coordination calls with RSDDT to prioritize dredge work
- Consistent communication with industry partners LOMRC, RIAC, and RIETF to discuss river conditions and dredging operations
- Ensuring Harbors are dredged before harvest season
 - MVM has RFP due 13 Jul for an extra cutterhead dredge
 - MVK awarded a task order (Crosby) for an additional cutterhead dredge to work the Mississippi River Harbors
- Hopper dredge GLENN EDWARDS working in deep draft crossings
- Dustpan age and repair needs



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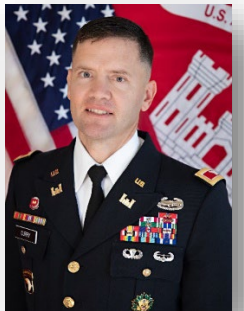
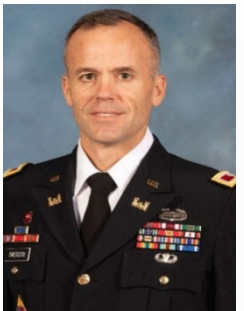


BG Kimberly Peeples
Commanding General, MVD
President, MRC



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