

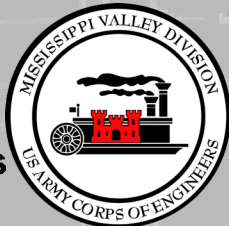
WATERWAYS COUNCIL, INC

ANNUAL WATERWAYS SYMPOSIUM

Jim Bodron
Director of Regional
Business
Mississippi Valley Division
December 7, 2022



**US Army Corps
of Engineers®**

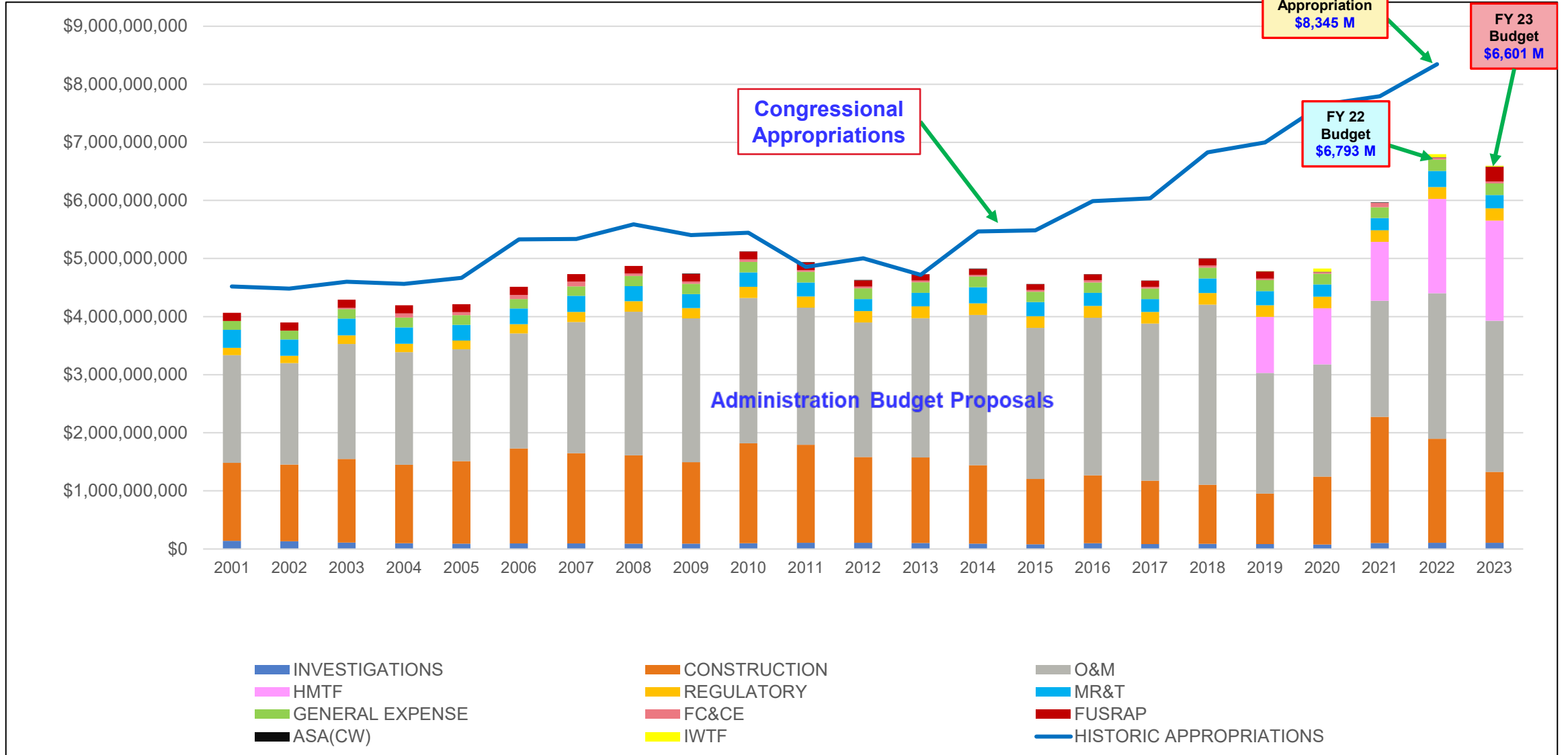




Civil Works National Investment Trends

(Excludes Supplemental Funding)

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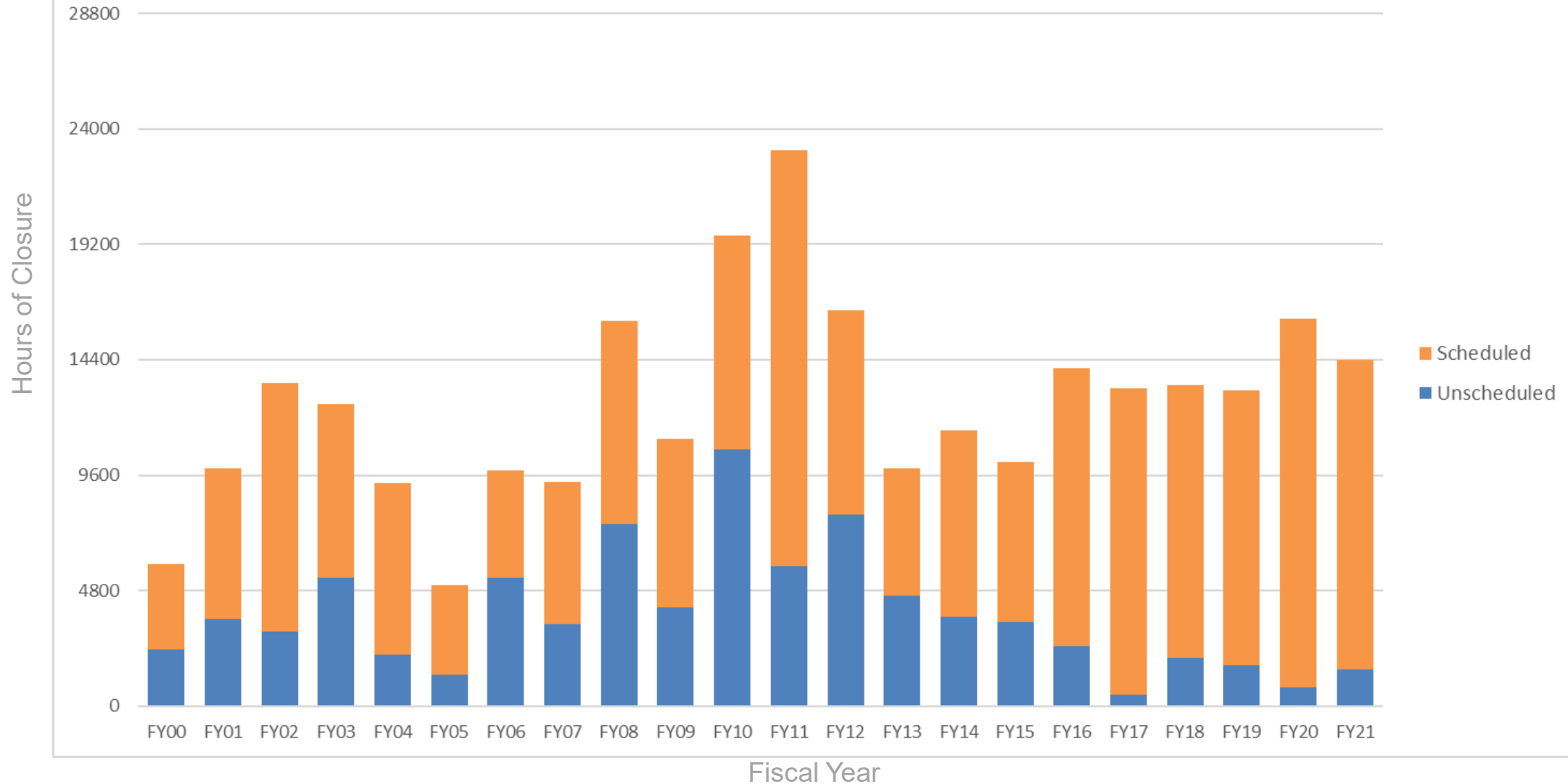




USACE Lock Closures

Main Chamber Unavailable Hours

(Events Greater than 1 Day)



LOCK 25 NESP PLAN





ILLINOIS WATERWAY CLOSURES



2020 Work: All closures were 120 days during 1 July through 30 October

- LaGrange MM/MR – lock dewatering to rehabilitate the lock chamber and miter gate machinery
- Peoria MM – lock dewatering for inspection, new bubbler system, and new miter gate hydraulic cylinders
- Starved Rock MM – lock dewatering to install 4 new miter gates, concrete sill, and anchorages
- Marseilles MM – lock dewatering to install 2 new miter gates, concrete sill, and anchorages
- Dresden Island MM – lock restrictions/closure to install upper bulkhead recesses to prep for 2023 MM

2022 Work: Intermittent closure 9 May to 14 August, full closure 15 AUG to 4 SEP, then intermittent closure from 5- 8 SEP

- Dresden Island / Brandon Road Miter gates to be delivered prior to 2023 closure
- Brandon Road Bulkhead recesses to be able to dewater site in 2023 closure

2023 Work: All closures will be 1 June through 30 September

- Brandon Road MM: approx. 120-day closure – lock dewatering to install 2 new miter gates, concrete sill, gate anchorages, and new miter gate machinery
- Dresden Island MM: approx. 120-day closure – lock dewatering to install 2 new miter gates, concrete sill, gate anchorages, and new miter gate machinery
- Marseilles MM: approx. 120-day closure – lock dewatering to facilitate complete replacement of electrical conduit crossover, concrete lock wall preparation for future miter gate machinery install.

Work originally planned for 2023 that is **no longer** taking place in 2023:

- Miter gate machinery replacement at Starved Rock and Marseilles.





Current and Forecasted Stages

05 December 2022

Forecast Location	Current Stage	Forecast Low Stage	Lowest 2022 Stage	2012	1988	Record Low
*St. Louis, MO	0.0	-4.0	-3.1 (24-Oct)	-4.4	-3.2	-6.2 (1940) -5.3 (1989)**
*Cairo, IL	18.6	16.5	5.0 (15-Oct)	7.2	4.9	-1.0 (1871) 4.8 (2022)***
*Memphis, TN	-1.5	1.3	-10.7 (20-Oct)	-9.8	-10.7	-10.7 (1988) -10.8 (2022)
Vicksburg, MS	5.8	12.3	-0.4 (25-Oct)	-1.1	-1.6	-7.0 (1940)
Baton Rouge, LA	8.4	12.3	4.2 (21-Oct)	3.4	1.8	-0.1 (1894)

*St. Louis, Cairo, and Memphis have fallen below their historical record during this event.

Based on regulated period of record 1967-present. *Based period of 1954-present period of record which is MVM LWRP basis.

Forecasted stages based on the NWS NAEFS 16 Day QPF Product



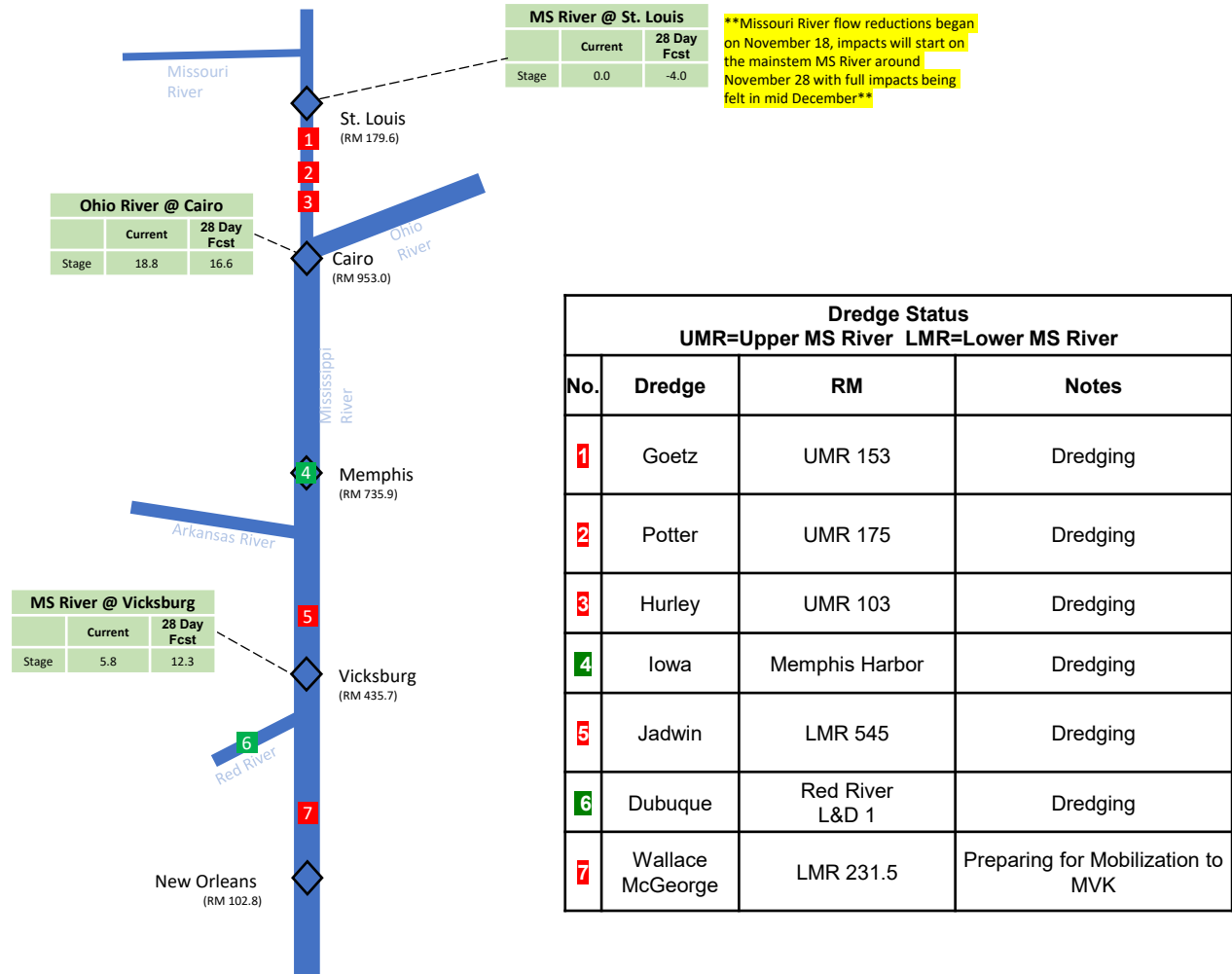
MS VALLEY LOW FLOW STATUS

05 DECEMBER 2022

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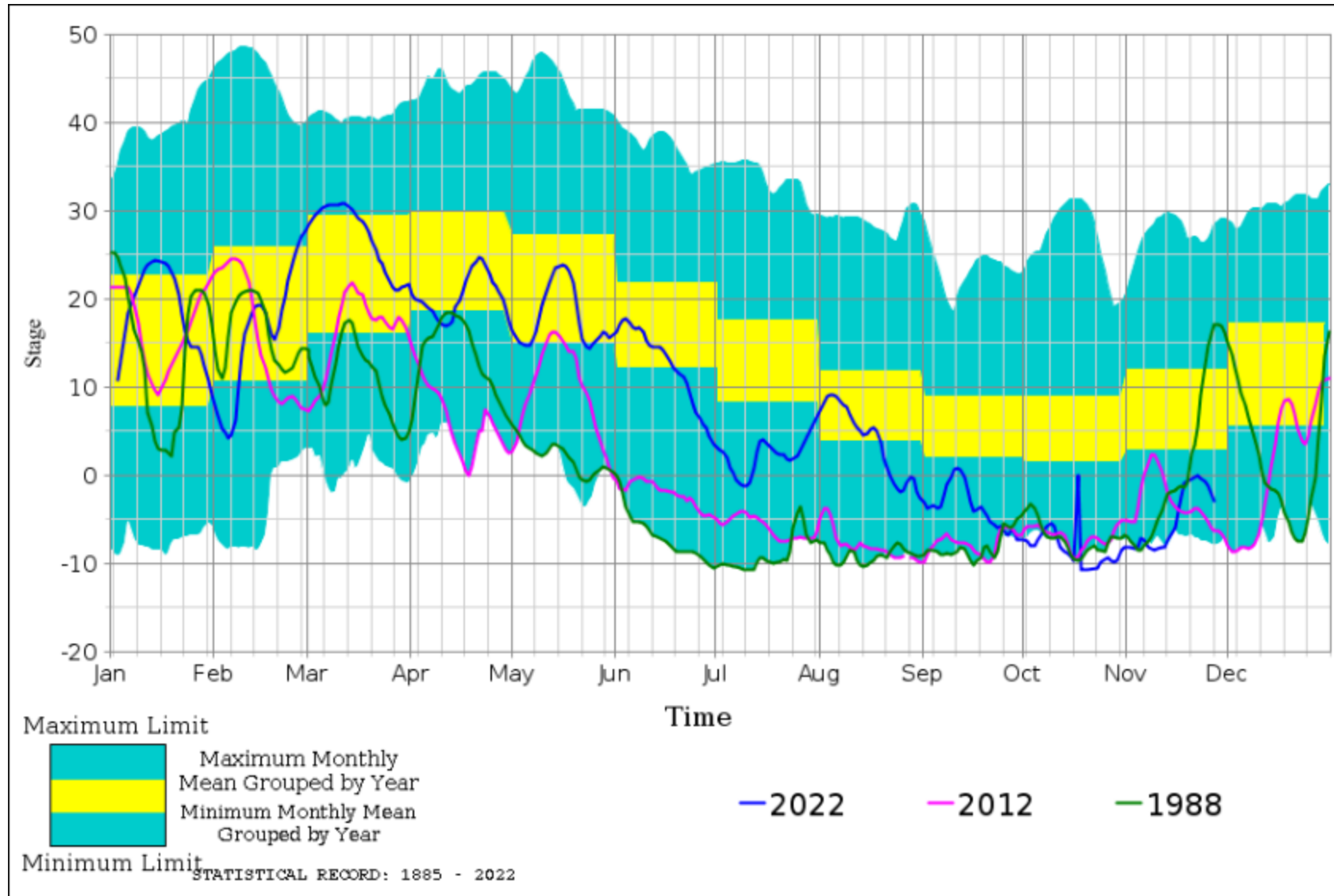


- Graphic below describes flows on each of these systems that are supplying flow to the mainstem Mississippi River and what is forecasted in 28 days
- Also included are current active dredge locations

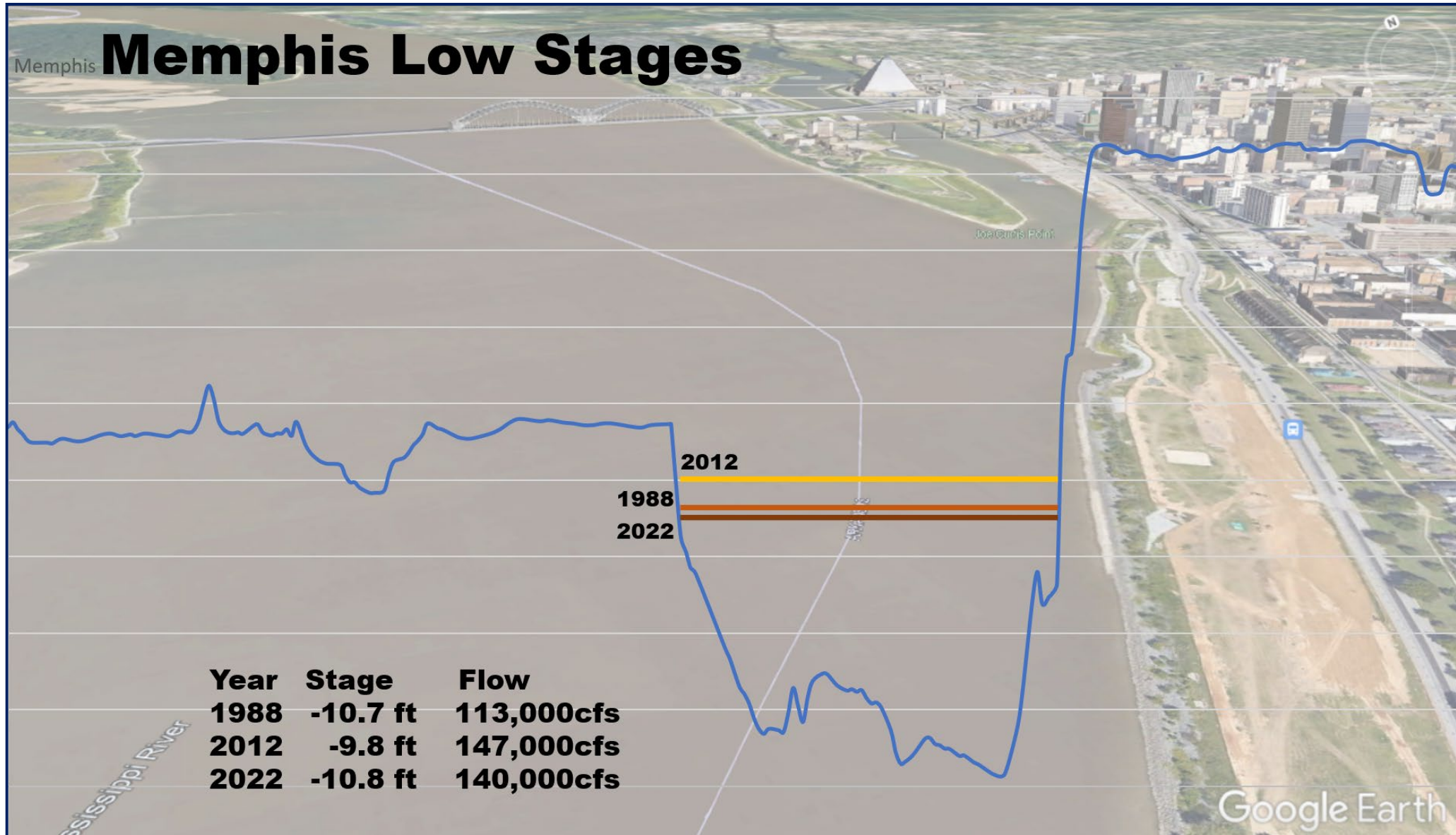




MEMPHIS TN STAGE COMPARISON

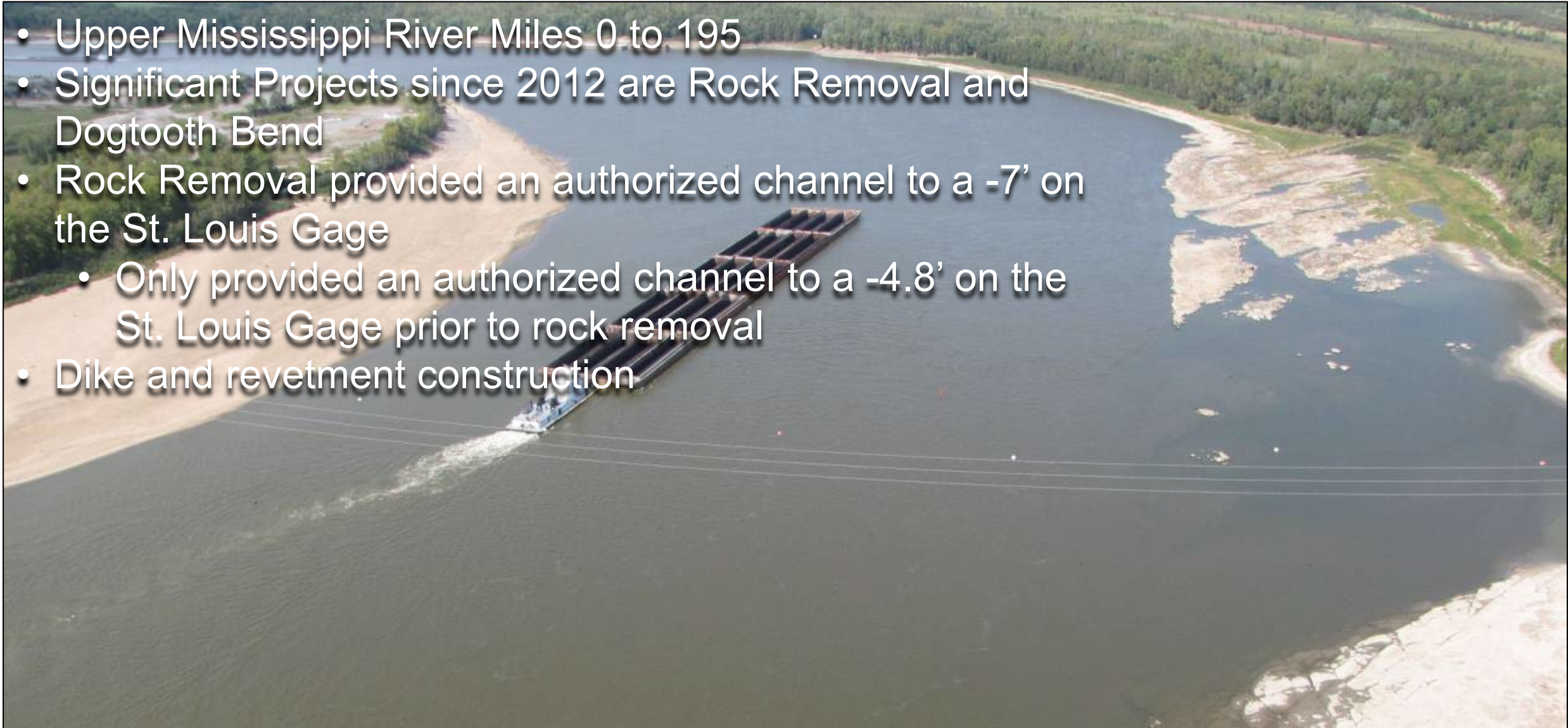


DYNAMIC RIVER CONDITIONS



MISSISSIPPI RIVER REGULATING WORKS

- Upper Mississippi River Miles 0 to 195
- Significant Projects since 2012 are Rock Removal and Dogtooth Bend
- Rock Removal provided an authorized channel to a -7' on the St. Louis Gage
 - Only provided an authorized channel to a -4.8' on the St. Louis Gage prior to rock removal
- Dike and revetment construction



TYPICAL CROSS SECTION ILLUSTRATION

River level is the depth of water at a monitoring station, measured to a specified datum

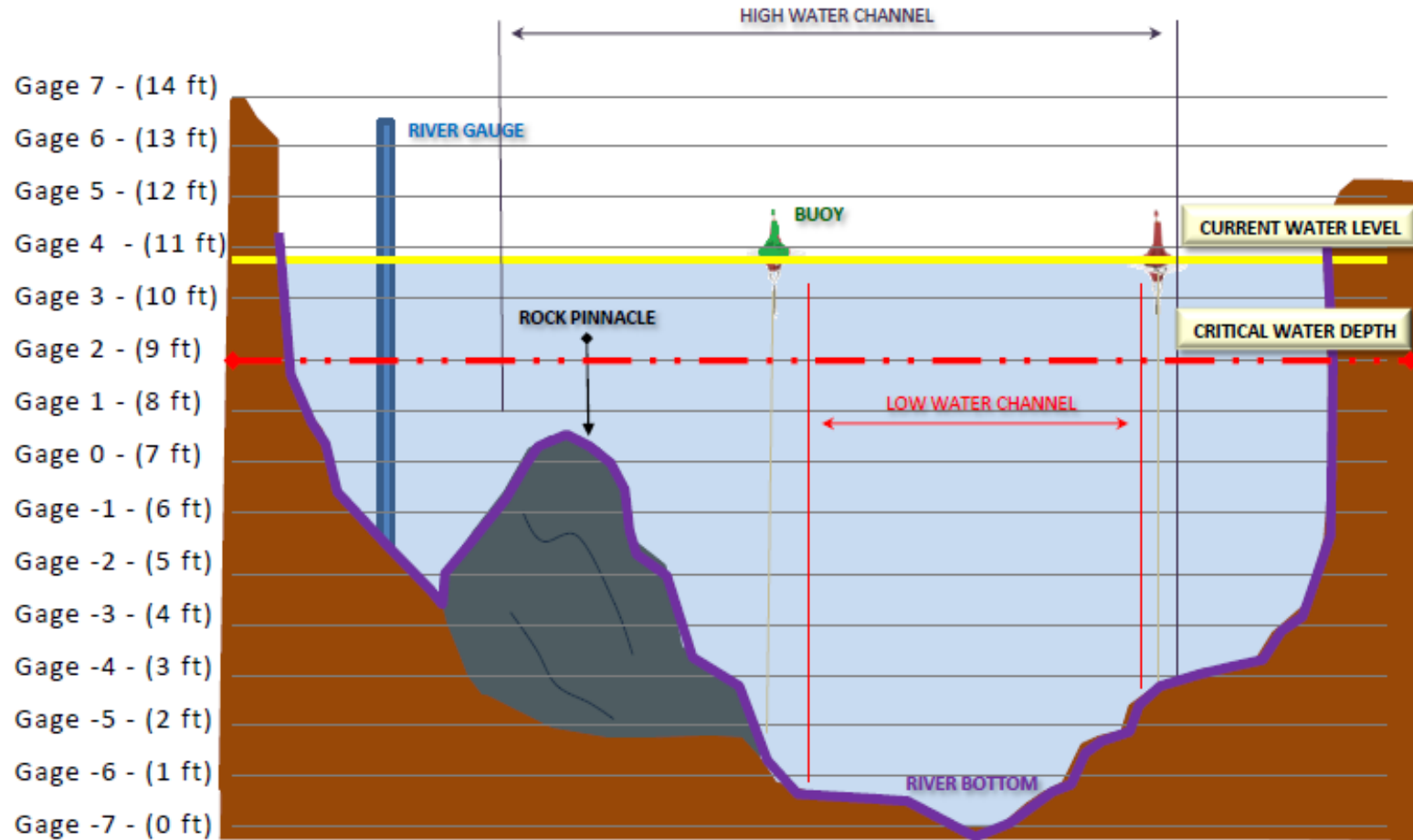


Illustration of a typical cross section (Not to scale)

Water level at Thebes Gage as of 10 Jan 2013 is 3.75 ft



10 Jan 2013



Mississippi River & Tributaries

Channel Improvement



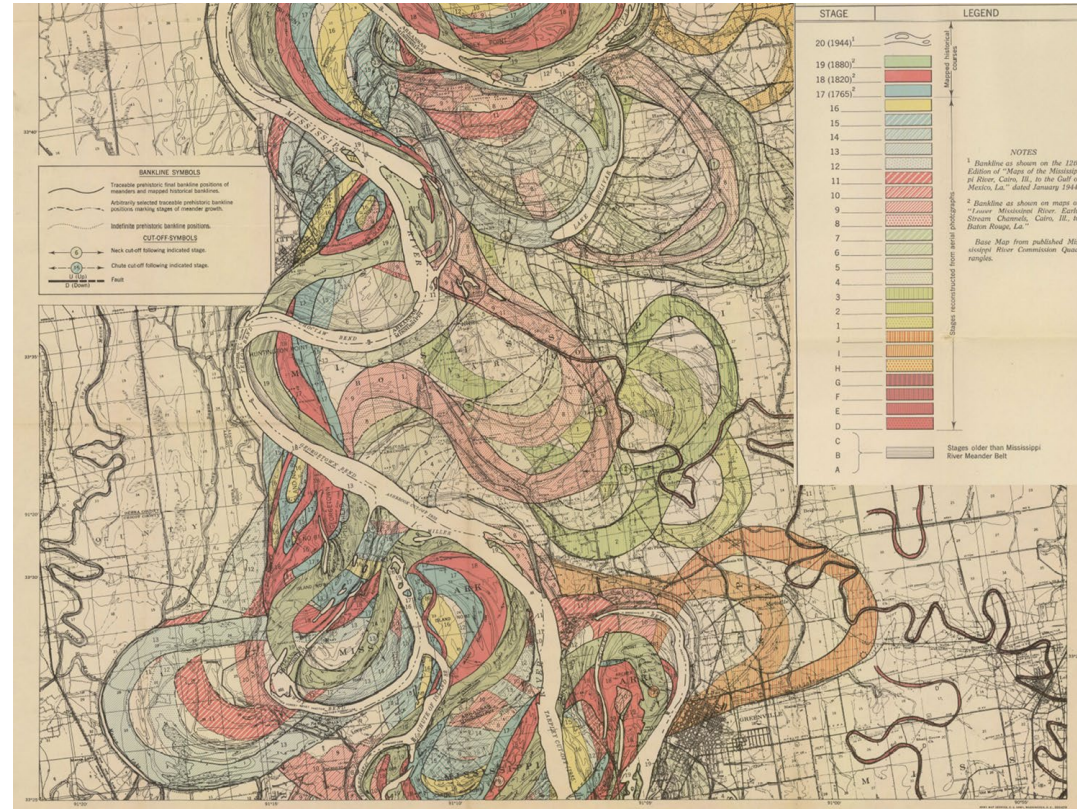
Revetments



Dredging



Stone Chevrons



Bendway Weirs

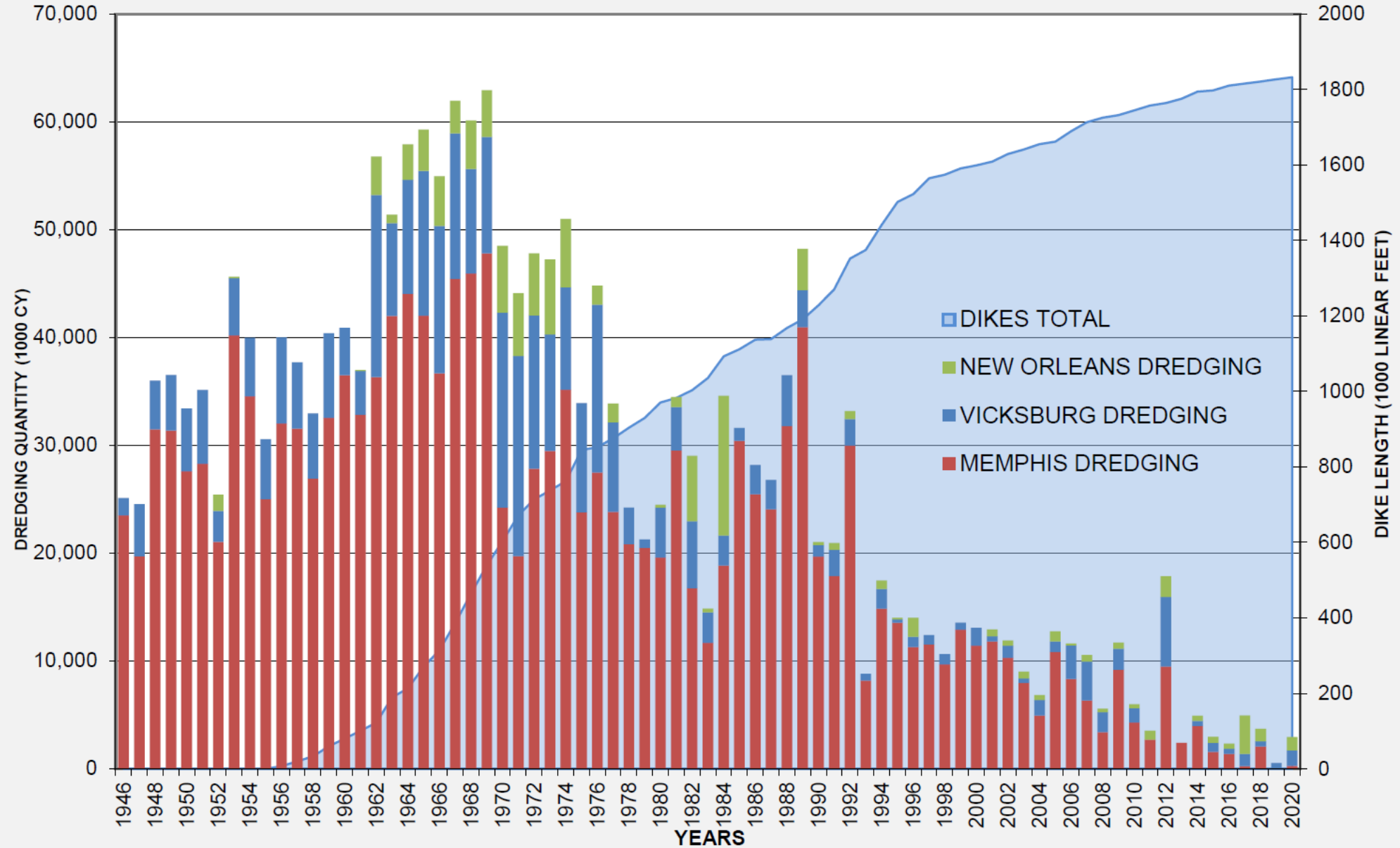


Dikes



MISSISSIPPI RIVER & TRIBUTARIES PROJECT

CUMULATIVE DIKE LENGTH vs DREDGING



THANK YOU



Red River Overton L&D