

Mr. Thomas Smith, P.E.
Chief, Operations & Regulatory Division
USACE Headquarters

National Waterways Conference
Annual Meeting
Sacramento, CA
3 October 2023



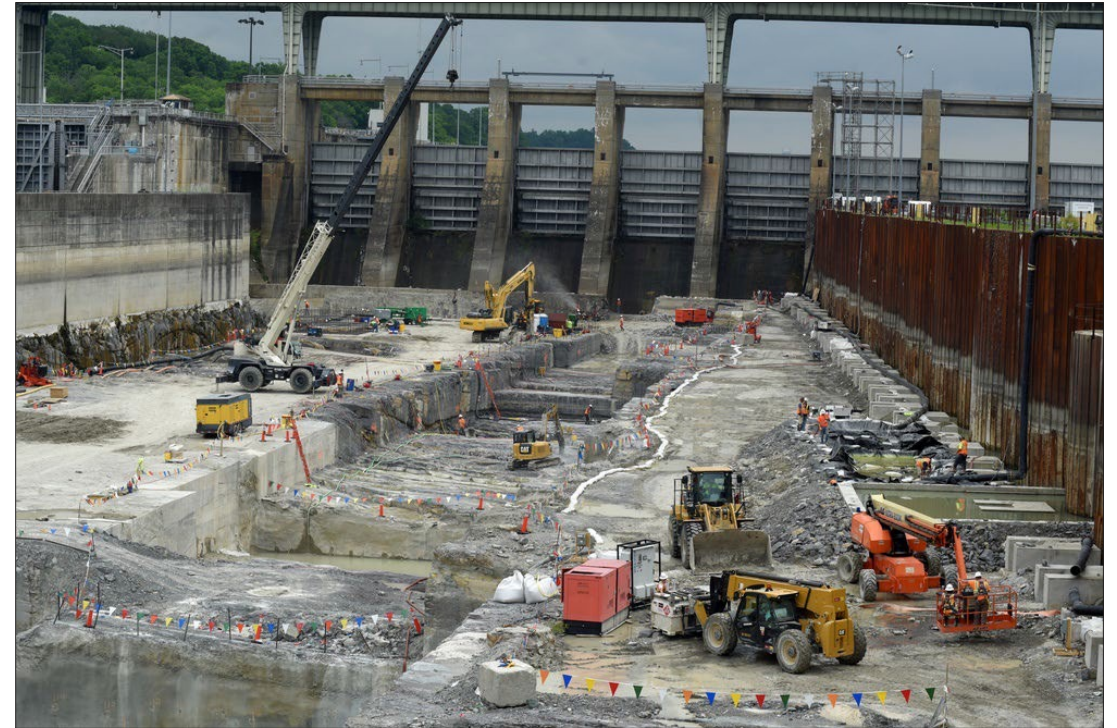
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ASSISTANT SECRETARY OF ARMY FOR CIVIL WORKS

LINES OF EFFORT

- **Upgrade Waterways and Ports to Strengthen Supply Chains and Economic Growth**
- **Build innovative, climate Resilient infrastructure to protect Communities and Ecosystems**
- **Modernize Civil Works Programs to better serve the needs of disadvantaged communities**
- **Invest in Science, Research and Development to deliver enduring water-resource solutions**
- **Strengthen communications and relationships to solve water resource challenges**



Chickamauga Lock



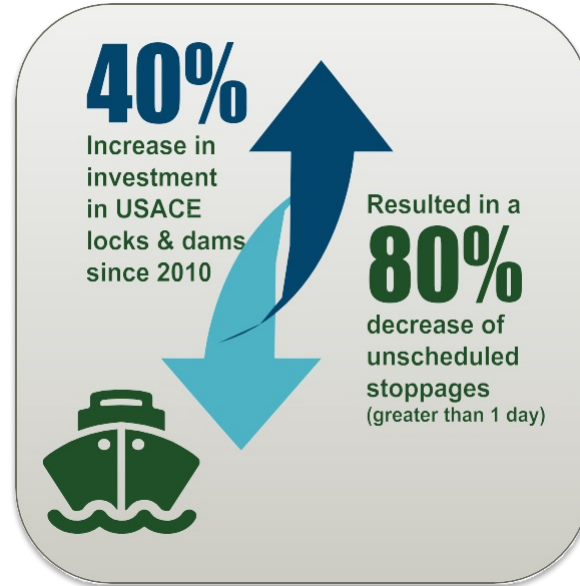
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BUILDING A RELIABLE AND RESILIENT NAVIGATION SYSTEM



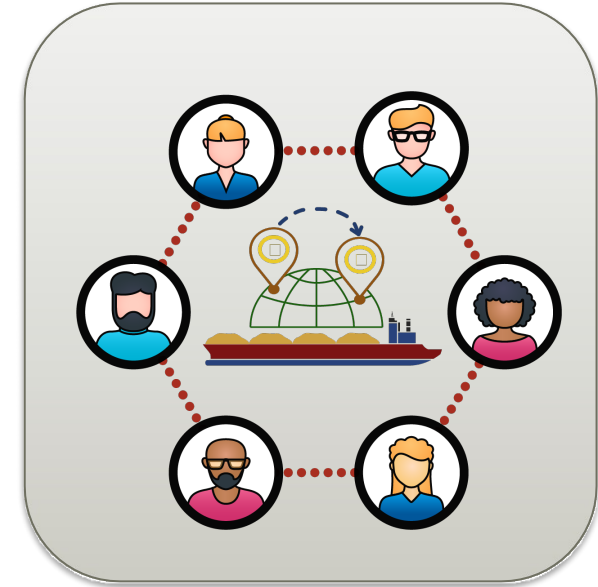
Increase Capacity

- 11 modernization projects underway
- Increased investment in upgrading waterways (1200' ft chambers)
- 50' deepening at New Orleans



Focus on System Reliability

- Increase investment in maintaining the existing infrastructure
- Apply life cycle asset management principles to prioritize work



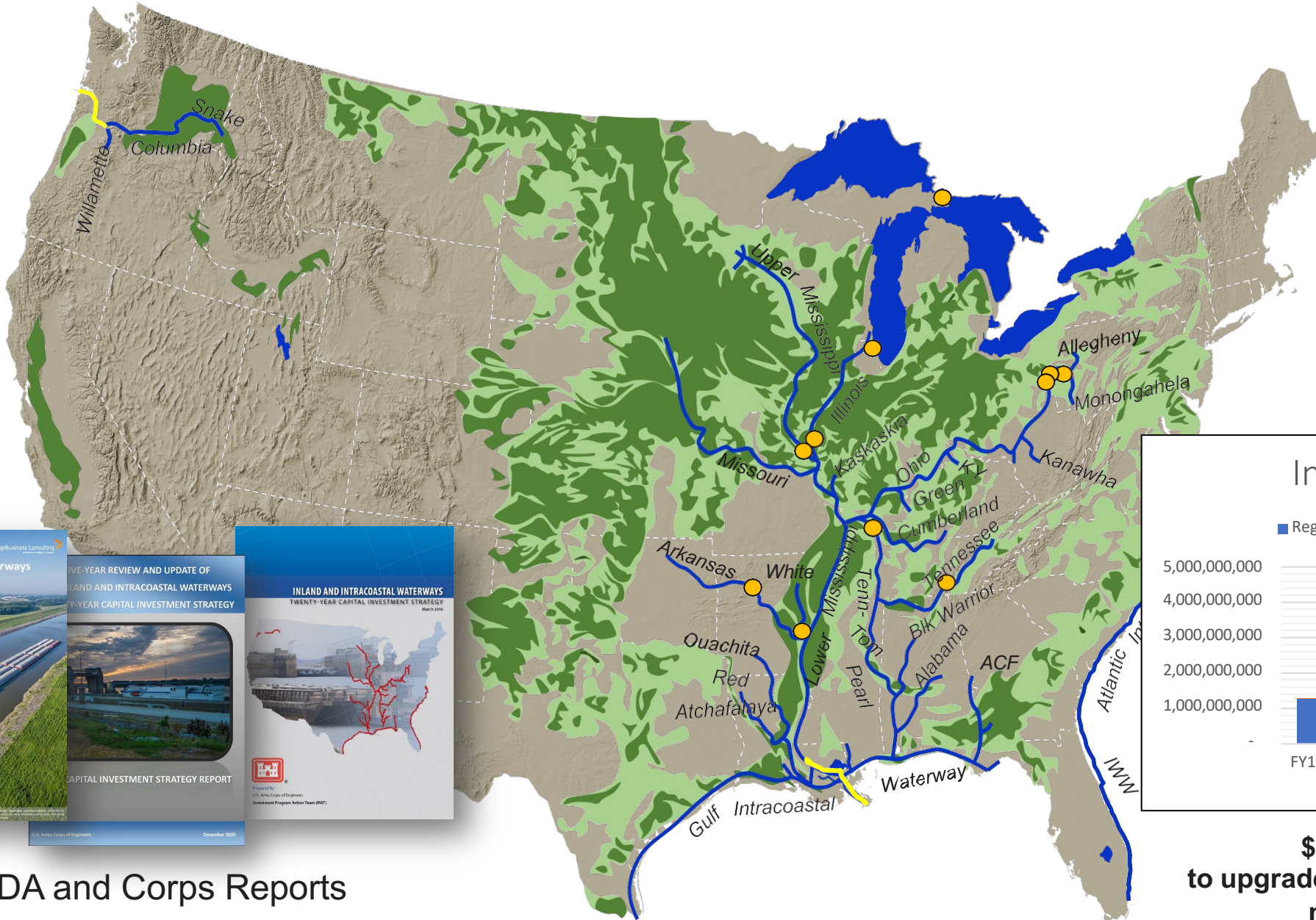
Continuous Operation & Management

- Continuous Industry coordination
- Leveraging consolidated closures
- Heightened operation of the system during extreme events like the 2022 Low Water on the Mississippi River
- Leverage stakeholder groups



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INLAND WATERWAYS INVESTMENT FY18-FY23

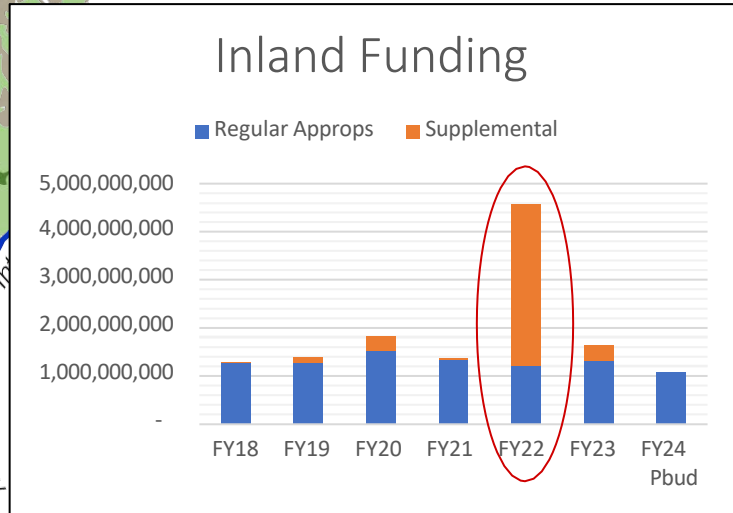


Legend

- Waterway project
 - Fuel Taxed Inland Waterway
 - Connecting Deep Draft Waterway
- Prime Agricultural Lands
- >50% cultivated
 - 15% - 50% cultivated



USDA and Corps Reports



\$3.2 Billion from BIL to upgrade (CG) & maintain (O&M) the nation's waterways

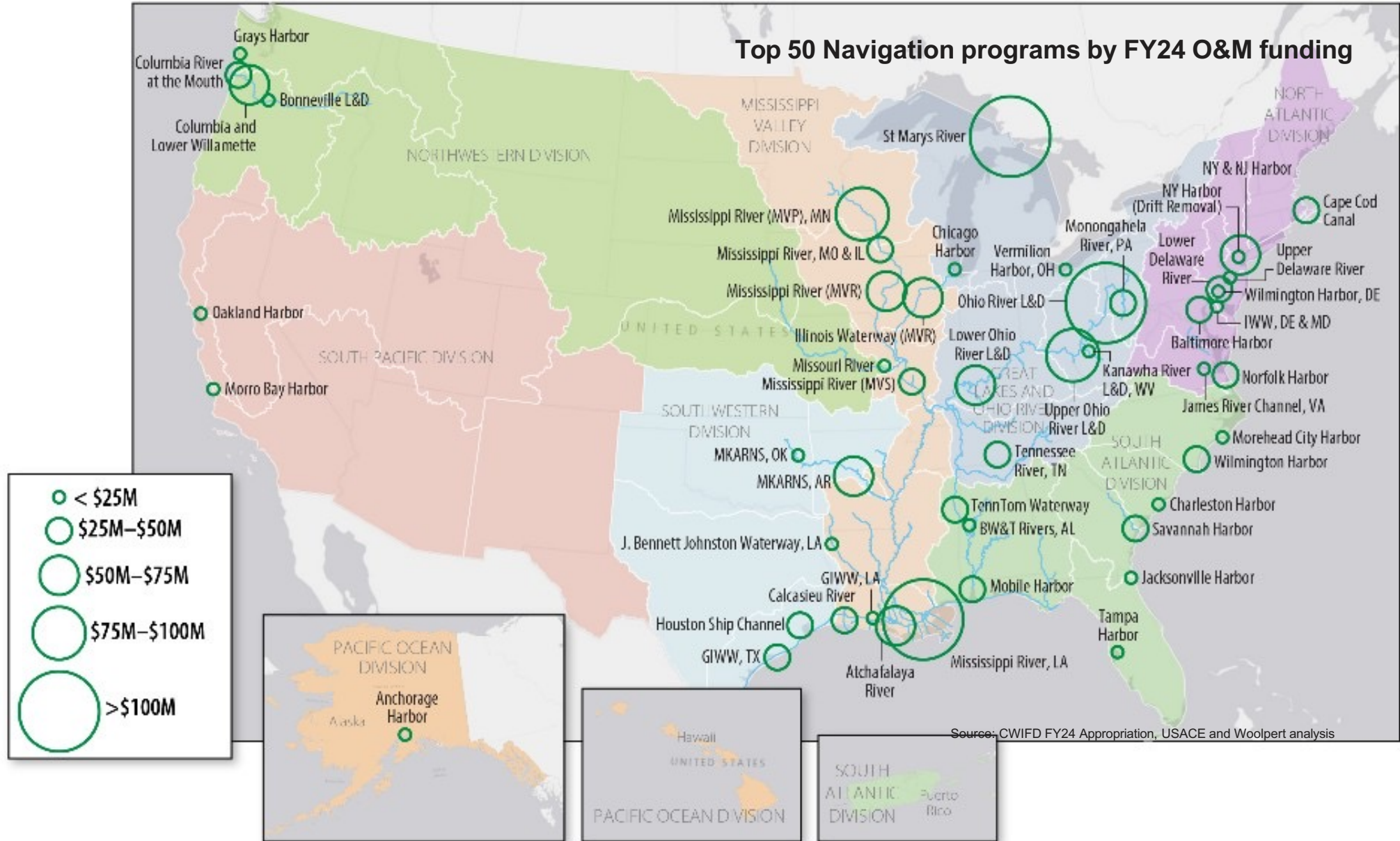


FOCUS ON SYSTEM RELIABILITY FY 2024



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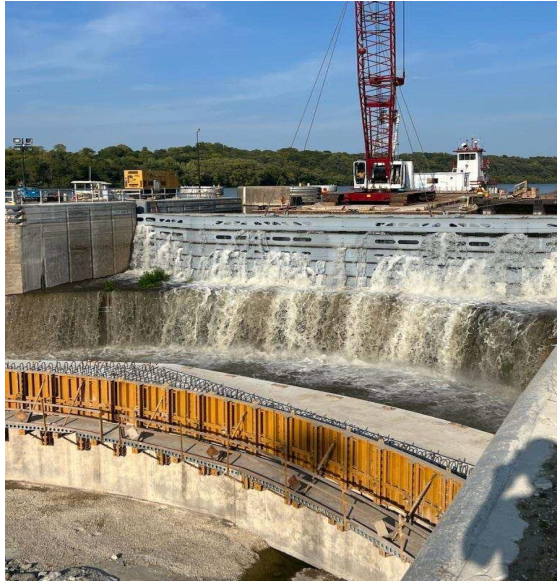
- **\$2.6B** planned investment in operations and maintenance of navigation projects to ensure system performance
- **\$989 M** focused on inland waterways infrastructure
- Since 2010, USACE has achieved an **80% reduction** in unscheduled lock outages





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ILLINOIS WATERWAY CONSOLIDATED CLOSURE 2023



Rewatering Dresden Island



Marseilles Electrical Crossover



Brandon Road Miter Gate



Dresden Island Bulkhead



Marseilles Crossover Formwork



Brandon Road Miter Gate Welding



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DELIVERING THE SUPPLY CHAIN DURING EXTREME DROUGHT

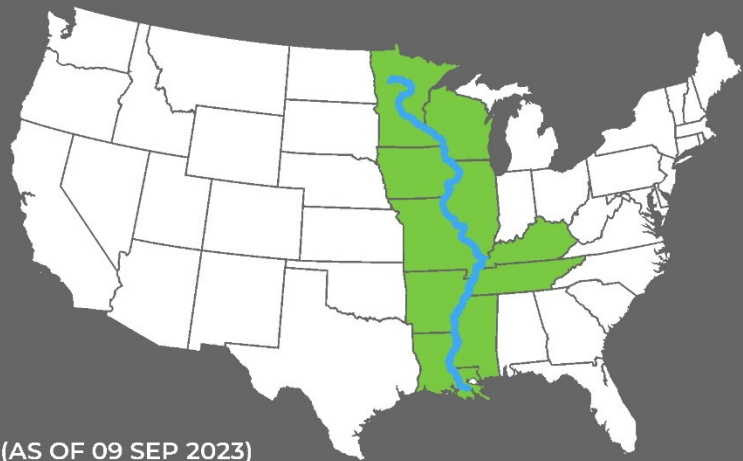


MISSISSIPPI RIVER

LOW WATER EVENT 2022

START DATE OF EVENT: 01 SEP 2022
END DATE OF EVENT: 18 JAN 2023

When our nation's busiest commercial waterway is impacted by low water levels, USACE works with Federal, State, Local and Industry partners to keep goods moving.



(AS OF 09 SEP 2023)

VALUE TO THE NATION

MISSISSIPPI RIVER ANNUAL TONNAGE VALUE: **~\$187 BILLION**

MISSISSIPPI RIVER ANNUAL TONNAGE: **659 MILLION** SHORT TONNES OF CARGO

TOP FIVE MISSISSIPPI RIVER COMMODITIES

- PETROLEUM & PETRO-CHEM PRODUCTS**
- CHEMICALS & RELATED PRODUCTS**
- COAL**
- FOOD & FARM PRODUCTS** (Corn & Soybean Primarily)
- CRUDE MATERIALS**



CONSTANT ACTION

MAXIMUM ACTIVE DREDGES: 9 TOTAL

DOLLARS INVESTED IN LOW WATER 2022: \$52.2 MILLION

CUBIC YARDS (CYS) OF DREDGED MATERIAL DURING LOW WATER 2022: 17.35 MILLION CYS

ENOUGH TO FILL MORE THAN 5,258 SWIMMING POOLS

CONSISTENT INVESTMENT | USACE MISSISSIPPI RIVER INVESTMENT SINCE 2012

BIPARTISAN INFRASTRUCTURE LAW

\$3.3 BILLION

MISSISSIPPI RIVER & TRIBUTARIES PROGRAM (MR&T)

\$1.52 BILLION

To construct over 2M revetment squares and 14 miles of dikes.

REGULATED WORKS PROGRAM

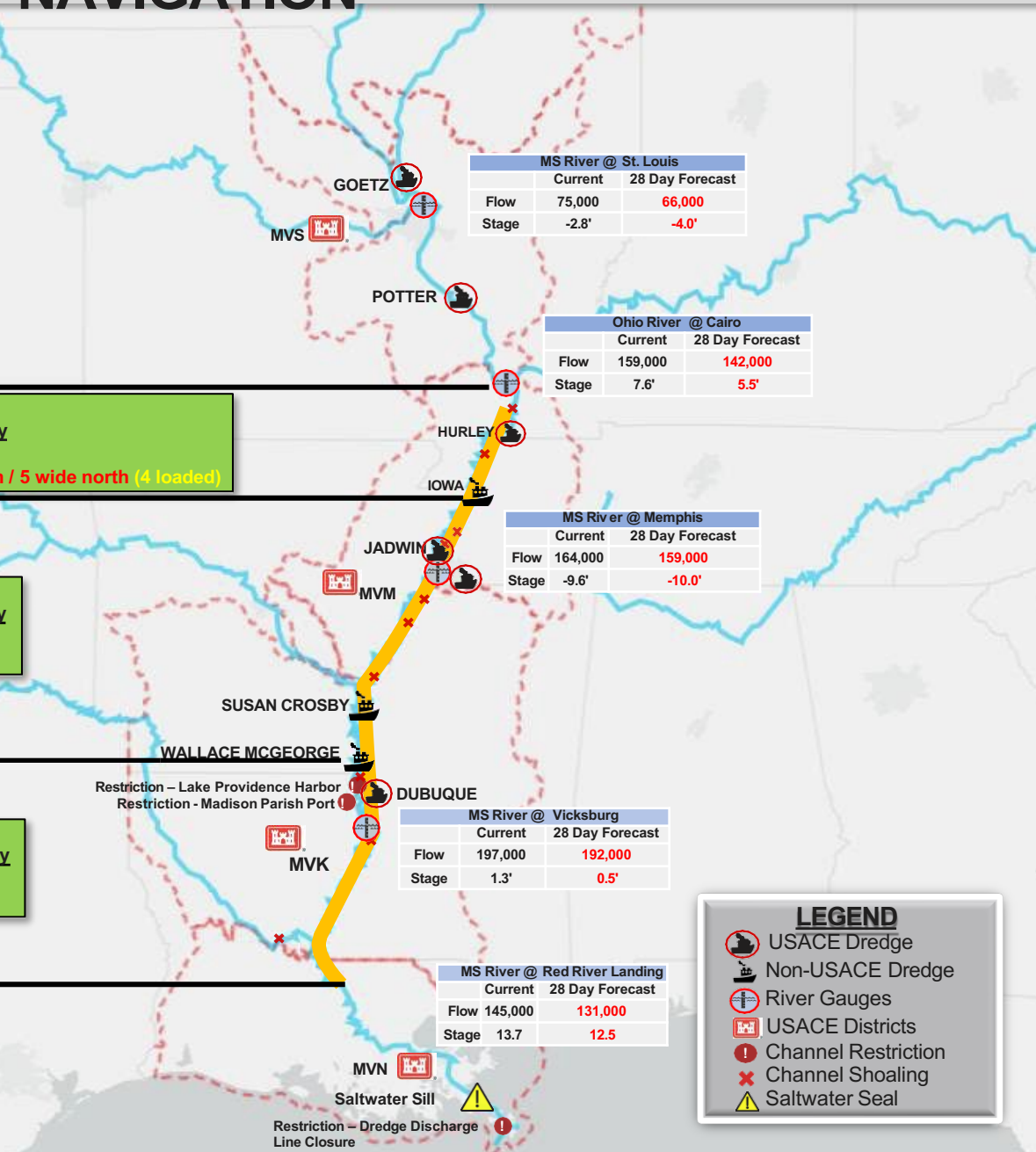
\$55.2 MILLION

To remove rock from the channel, place revetments, and construct river training structures.

REVETMENTS, DIKES, AND RIVER TRAINING STRUCTURES CONCENTRATE RIVER FLOW AND FORCE IT TO SCOUR OUT A DEEPER NAVIGATION CHANNEL WHILE REDUCING BANKLINE EROSION.

MISSISSIPPI RIVER LOW WATER – NAVIGATION

Active Dredges: 8
Cubic Yards Removed: 10.5M
Funds Expended: \$25.3M



LMR 953
 Channel: 9 ft x 300 ft
 USCG Safety Advisory
 Draft: 9.6 ft
 Barges: 5 wide south / 5 wide north (4 loaded)

LMR 869
 Channel: 9 ft x 300 ft
 USCG Safety Advisory
 Draft: 9.6 ft
 Barges: 6 wide

LMR 482
 Channel: 9 ft x 300 ft
 USCG Safety Advisory
 Draft: 10 ft
 Barges: 6 wide

LMR 303

LEGEND

- USACE Dredge
- Non-USACE Dredge
- River Gauges
- USACE Districts
- Channel Restriction
- Channel Shoaling
- Saltwater Seal

Timeline of Event

JUN 2023	Start Multi-MS Low Water Action Team	MVD regional Shallow Draft Team coordinates Proactive Dredging (Middle & Lower Miss. River)
JUL 2023	MVN constructs Saltwater Wedge	
AUG 2023		
SEP 2023	MVN raises Saltwater Wedge	Dredging focus Middle Miss. River
OCT 2023	Min. Average Low stages south of Cairo, IL	
NOV 2023	Missouri River flows reduce	
DEC 2023	Freezing / "Ice Bite" risk on Upper Miss.	
JAN 2024	Min. Average Low St. Louis to Cairo	
FEB 2024	ASSUMED: Return to average river stages	

Key Points:

- Anticipated dry conditions to continue into October and flows on the mainstem Mississippi River will continue to gradually fall.
- The saltwater wedge overtopped the previously constructed sill on 20 SEP, impacts to Belle Chasse in Plaquemines Parish are expected on 13 OCT, St. Bernard Parish o/a 19 OCT, Jefferson Parish o/a 24 OCT, and Orleans Parish o/a 22 OCT. This projections accounts for the augmented sill construct with the contractor mobilizing 25SEP and completing o/a 18OCT.
- MVD has 22 dredges within in the MVD area of responsibility; 15 Dredges operating this week on the Mississippi River and 8 Dredges are working the low water emergency.

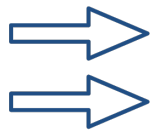


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VISION & GOALS: USACE LOCK & DAM REMOTE OPERATIONS



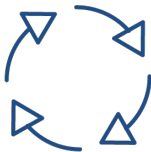
Implement lock & dam remote control to modernize operations for navigation in the future.



Consistent national implementation. Establish national program to develop policy and guidance to enable consistent implementation with MSCs and Districts.



Commonality. Promote commonality through development of common operating procedures, staffing, design, and equipment / components.



Life cycle investment. Develop a multi-year life cycle investment plan that is flexible and adaptable to USACE's unique requirements and circumstances.



Prioritized for people. Take care of people. Implement staffing transition and training plan.

TIMEFRAME:



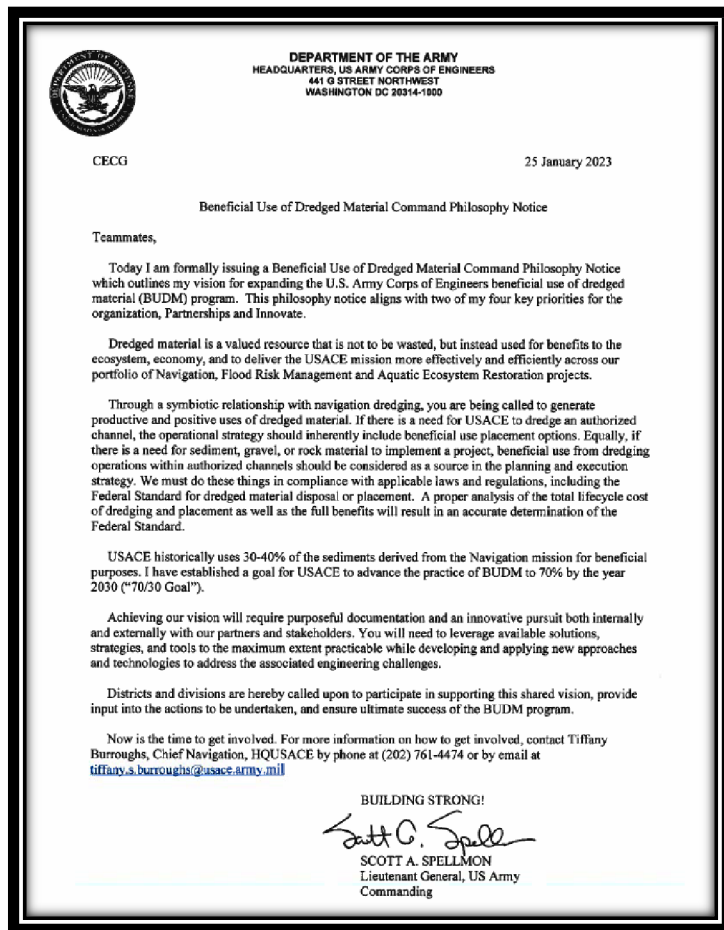


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BENEFICIAL USE OF DREDGED MATERIAL



Beneficial uses are defined as “productive and positive uses of dredged material, which cover broad use categories ranging from fish and wildlife habitat development, to human recreation, to industrial/commercial uses” (Engineer Manual 1110-2-5025, 2015).



Dredge Disposal

The Corps dredges ~ 270 million cubic yards regulated under the Clean Water Act annually

Revolutionize USACE BU

- Currently place ~40% beneficially
- Goal of 70% material placed beneficially by 2030

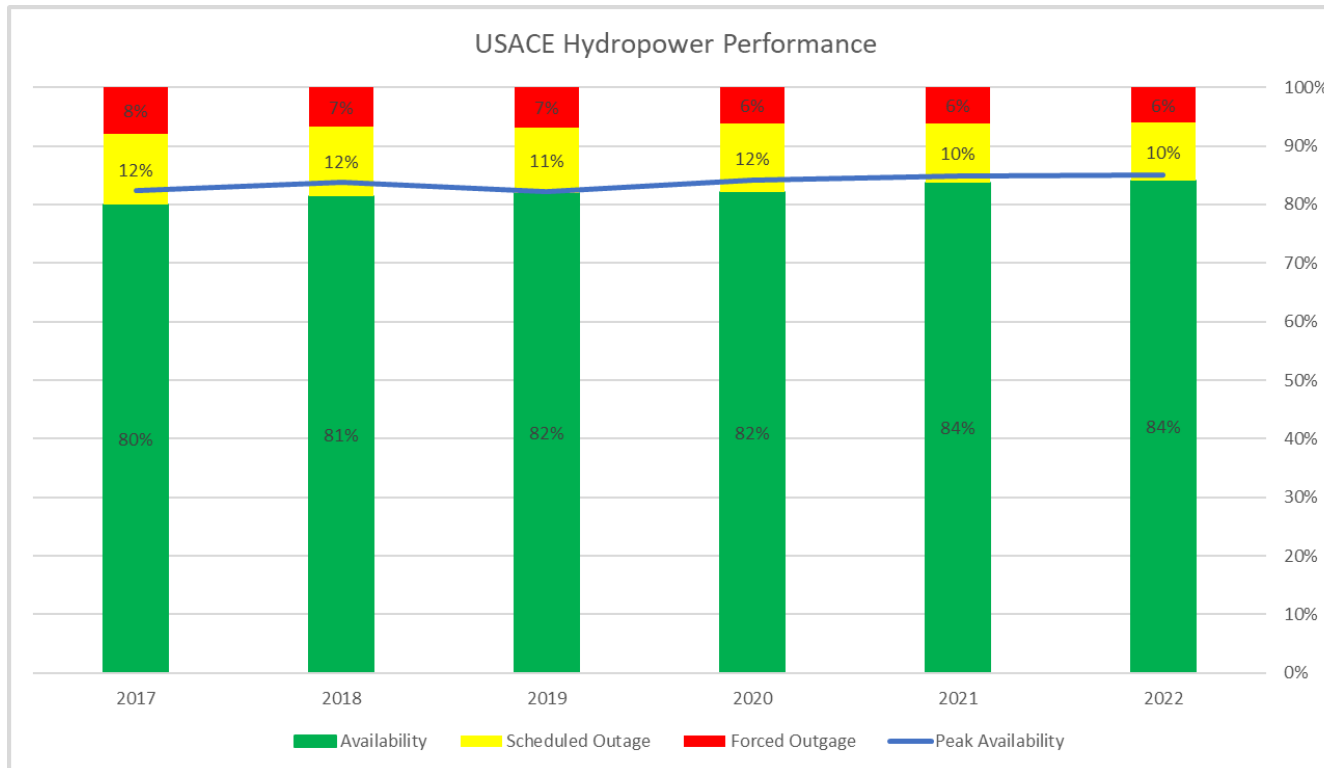
Major Initiatives to Advance Beneficial Use

- Regional Sediment Management
- Engineering with Nature
- WRDA 2020 Section 125 Implementation Guidance
- WRDA 16 Section 1122 Projects



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HYDROPOWER UPDATE



HYDROPOWER PERFORMANCE IMPROVING

- 25% Reduction in Forced Outage Time over the Past 5 Years
- Availability and Peak Availability Increasing
- Industry Performance Data
 - Availability – 80%
 - Scheduled Outages – 14%
 - Forced Outage – 6%
- Continue to address long-term outages and barriers to project delivery

USACE Actions

- Addressing Indirect Hydropower Costs
- Improving Enterprise Visibility of Major Hydropower Outages and Acquisitions
- Implementing Standardized Preventative Maintenance Tasks

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CHALLENGES

- Visitor Demand continues to be high post COVID
- USACE hosted 1.4 billion visits at more than 4,800 recreation areas over the past 5 years
- Public access infrastructure requiring increased maintenance
- Severe storm damages from changes in climate
- Increasing invasive species impacts
- Preventing public fatalities

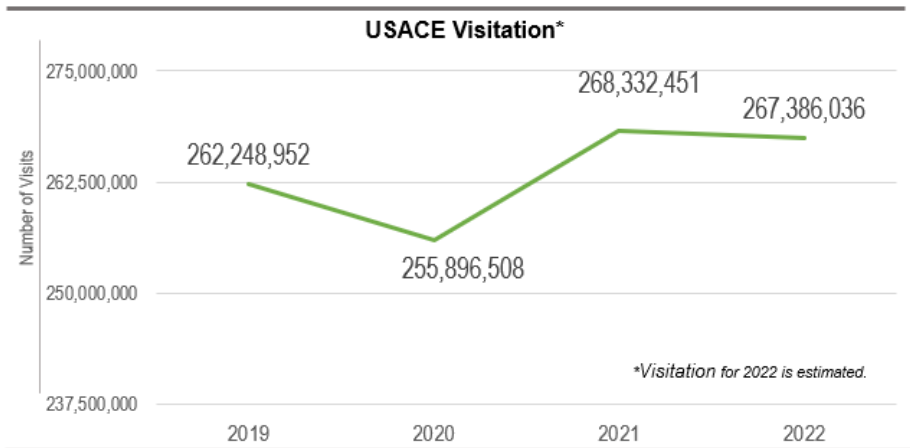
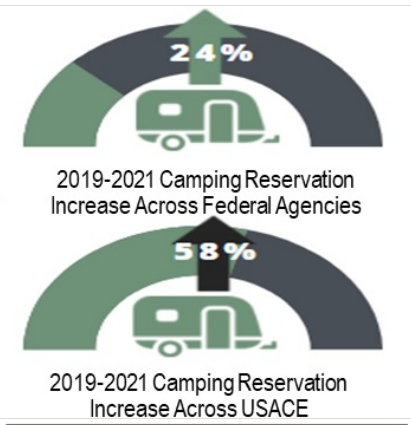


Figure 1: USACE Visitation 2018-2022.



OPPORTUNITIES

- **Support to underserved communities.**
 - Over 80% of USACE recreation areas are within 30 miles of disadvantaged communities.
 - Recreation program contributes \$14B in visitor spending to local communities and supports 217K jobs
- **Administration Initiatives:**
 - BIL/DRSAA - \$101M repairs (FY22-23)
 - Electric Vehicle Support Equipment – \$28M (FY22-23)
 - FICOR – Federal Interagency Council on Outdoor Recreation
 - America the Beautiful – Protect 30% of America’s lands by 2030



Deteriorating infrastructure



Invasive aquatic plants covering a waterway

Off-Shore Wind

- Currently reviewing 9 Individual Permit Actions supporting establishment of new off-shore wind facilities.
- Working closely with applicants and BOEM (lead agency) as a cooperating agency for NEPA and FAST-41.

Procedures for Protection of Historic Properties (Appendix C)

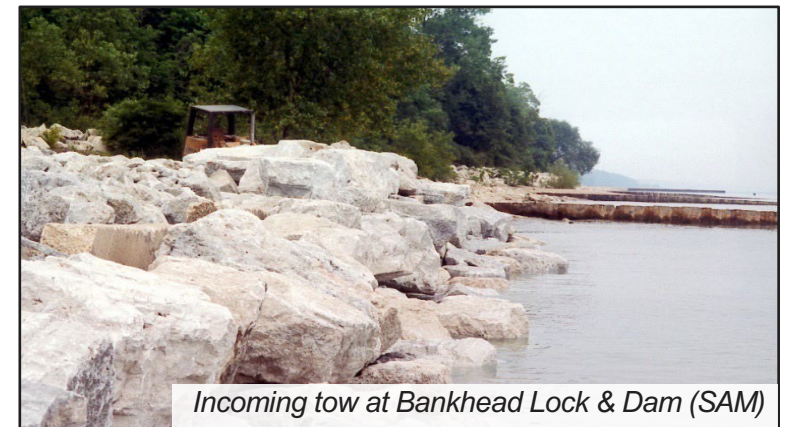
- Based on comments received on the “Modernizing Civil Works” Federal Register Notice, developing options for removing 33CFR 325 Appendix C and ensuring that National Historic Preservation Act responsibilities are appropriately addressed in line with USACE Regulatory authorities.

USACE Action Plan

- Supporting Plan to the Biden-Harris Permitting Action Plan.
- Focused on efforts to improve both quality and timeliness of Regulatory decisions

Water of the US (WOTUS)

- Published in the *Federal Register* 8 SEP 2023
- Rule became effective 8 SEP 2023
- USACE Regulatory working with ASA(CW) and EPA to develop implementation materials

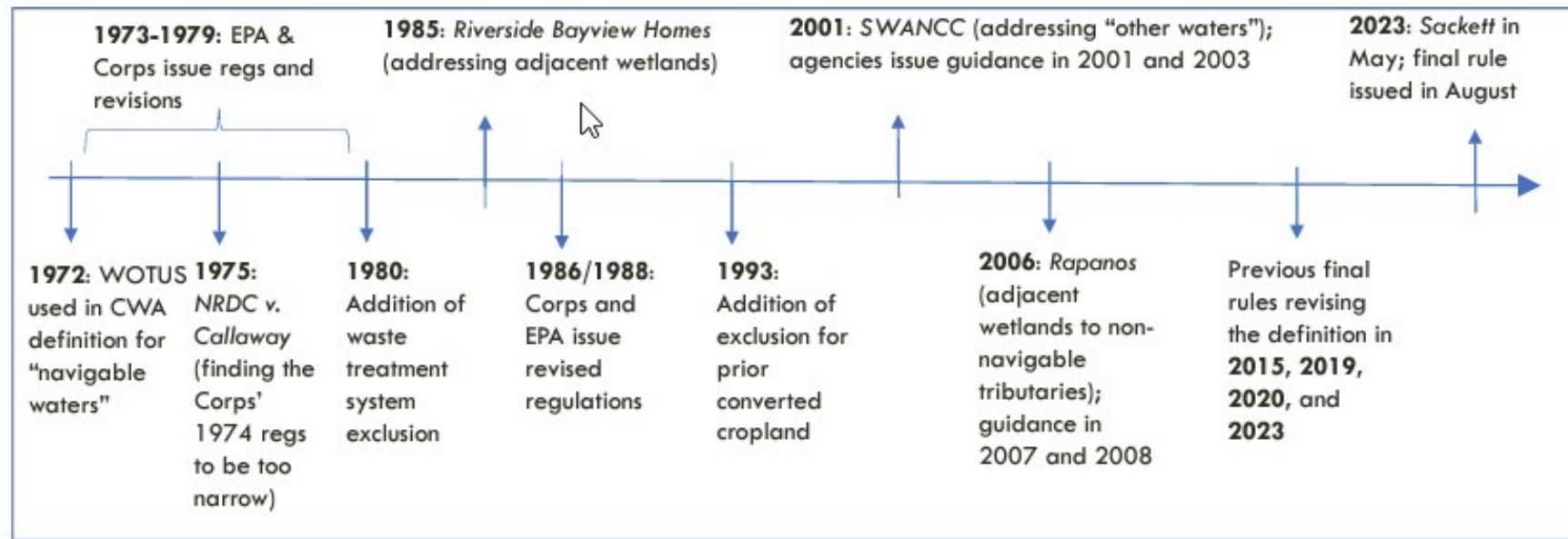


Incoming tow at Bankhead Lock & Dam (SAM)



Background: “Waters of the United States” Over Time

The definition of “waters of the United States” has been a subject of dispute and addressed in several major Supreme Court cases.



- **29 AUG 2023:** EPA and Department of the Army issued a final Rule to amend the “Revised Definition of ‘Waters of the United States’” Rule (January 2023 Rule)
- **08 SEP 2023:** Final Rule “Revised Definition of ‘Waters of the United States’; Conforming,” (Amended 2023 Rule) published in the *Federal Register* and became effective.



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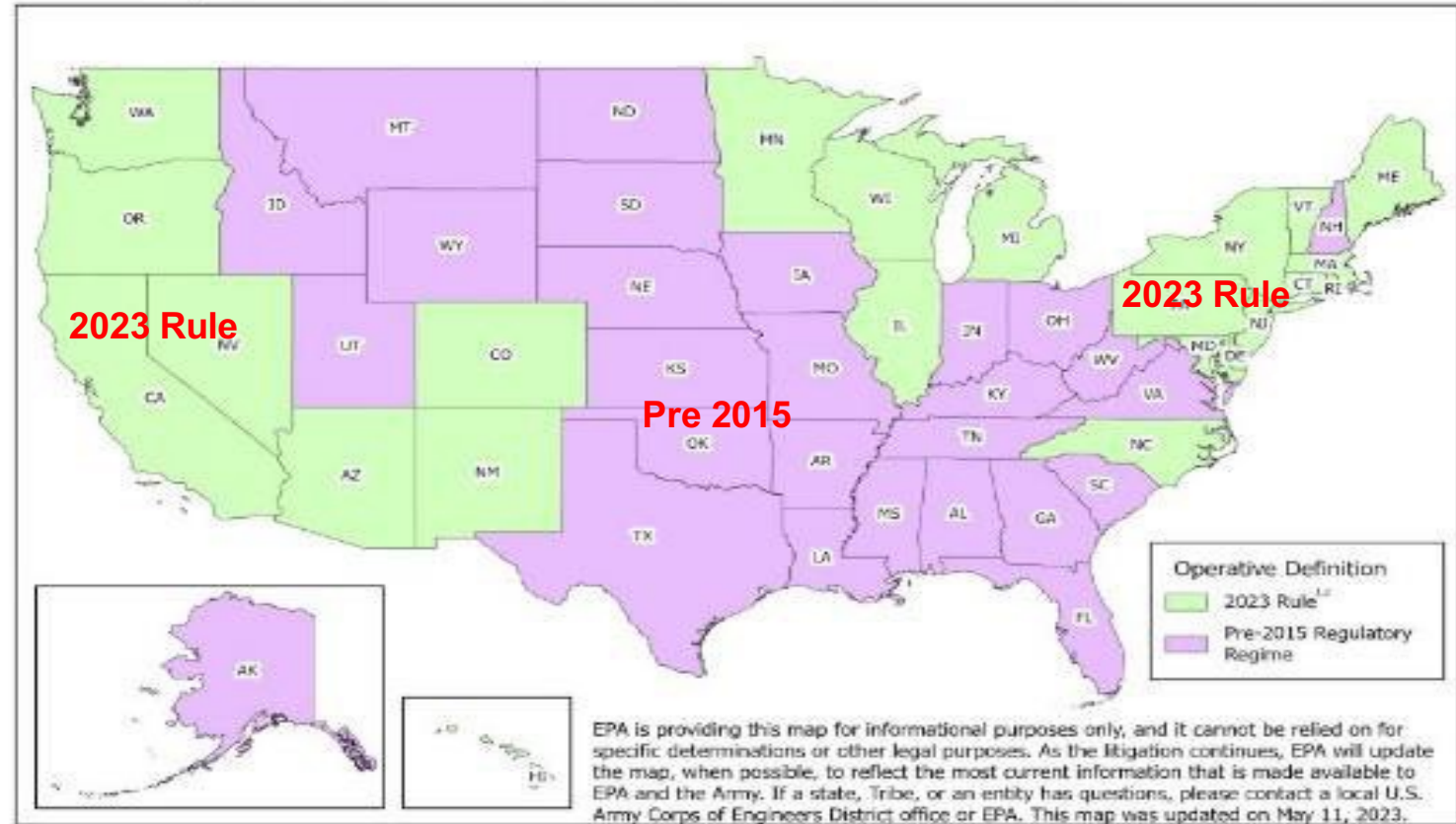
WOTUS – CURRENT STATUS



The court’s decision in *Sackett* did not repeal any regulation defining WOTUS.

- 23 States - January 2023 Rule
- The Amended 2023 Rule specifically conforms the January 2023 Rule
- 27 States - “Pre-2015 regulatory regime” (pre-2015 definition of “waters of the United States,” as informed by the 2003 SWANCC and 2008 *Rapanos* guidance documents).

Operative Definition of "Waters of the United States"



¹Also operative in the U.S. territories and the District of Columbia
²The pre-2015 regulatory regime is operative for the Commonwealth of Kentucky and Plaintiff-Appellants in *Kentucky Chamber of Commerce, et al. v. EPA* (No. 23-5345) and their members (Kentucky Chamber of Commerce, U.S. Chamber of Commerce, Associated General Contractors of Kentucky, Home Builders Association of Kentucky, Portland Cement Association, and Georgia Chamber of Commerce).



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KEY POINTS IN SACKETT

(APPLIES TO BOTH THE JANUARY 2023 RULE AND PRE-2015 REGIME)



- *“[T]he CWA’s use of ‘waters’ encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as ‘streams, oceans, rivers, and lakes.’”*
- *“[T]he CWA never mentions the “significant nexus” test, so the EPA has no statutory basis to impose it.”*
- *“In sum, we hold that the CWA extends to only those wetlands that are “as a practical matter indistinguishable from waters of the United States. This requires the party asserting jurisdiction over adjacent wetlands to establish*
 - *“first, that the adjacent [body of water constitutes]...’water[s] of the United States,’ (i.e., a relatively permanent body of water connected to traditional navigable waters); and*
 - *second, that the wetland has a continuous surface connection with that water, making it difficult to determine where the ‘water’ ends and the ‘wetland’ begins.”*
- [Waters of the United States | US EPA \(https://www.epa.gov/wotus\)](https://www.epa.gov/wotus)

Questions?

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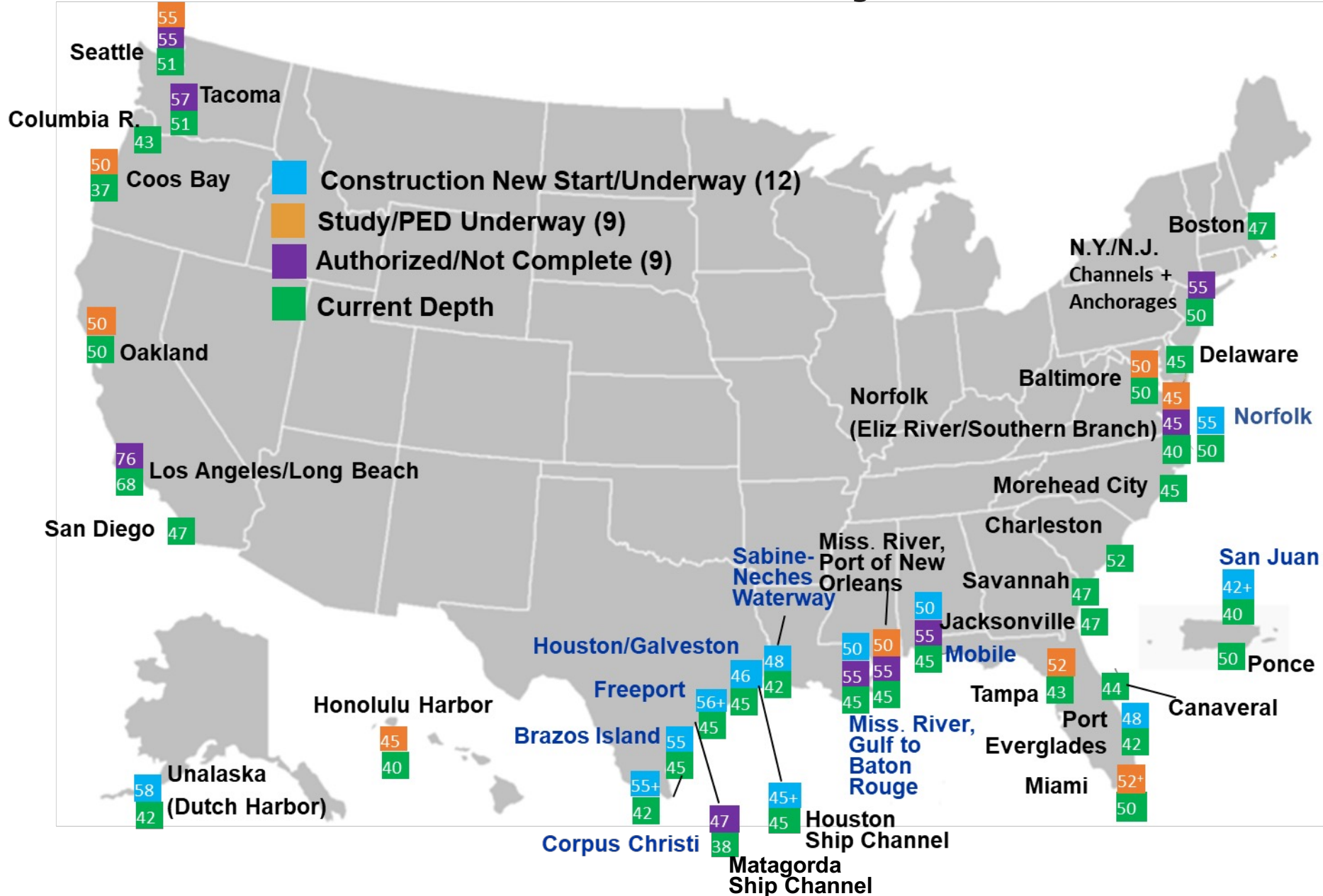
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Post-Panamax Port Projects/Studies

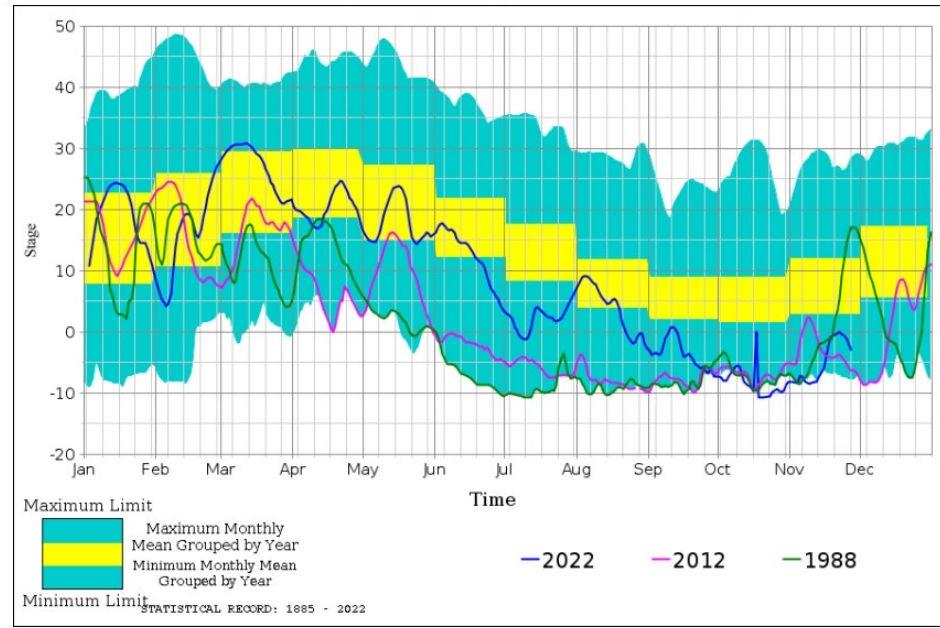
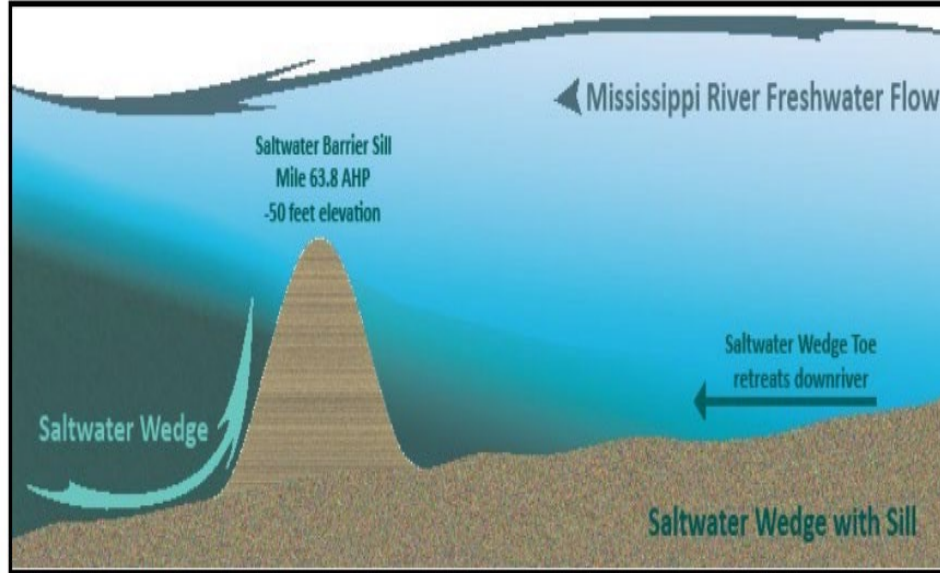
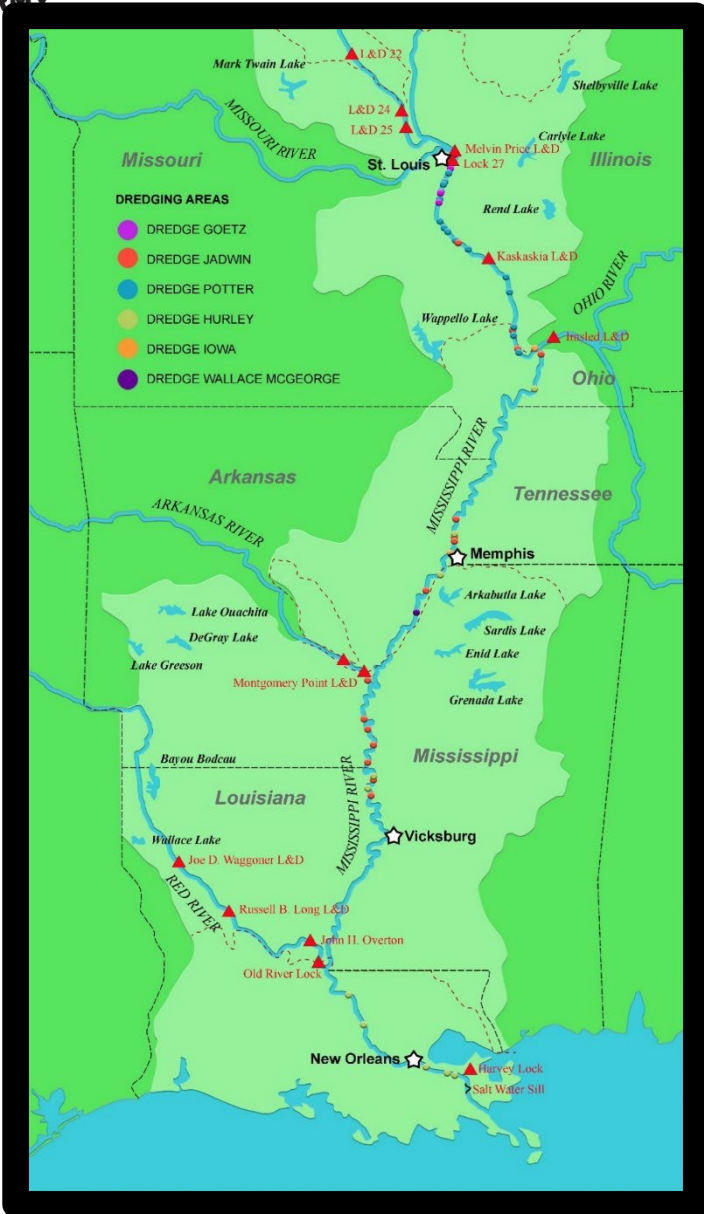




USACE LOW WATER RESPONSE JUL 2023 – ONGOING



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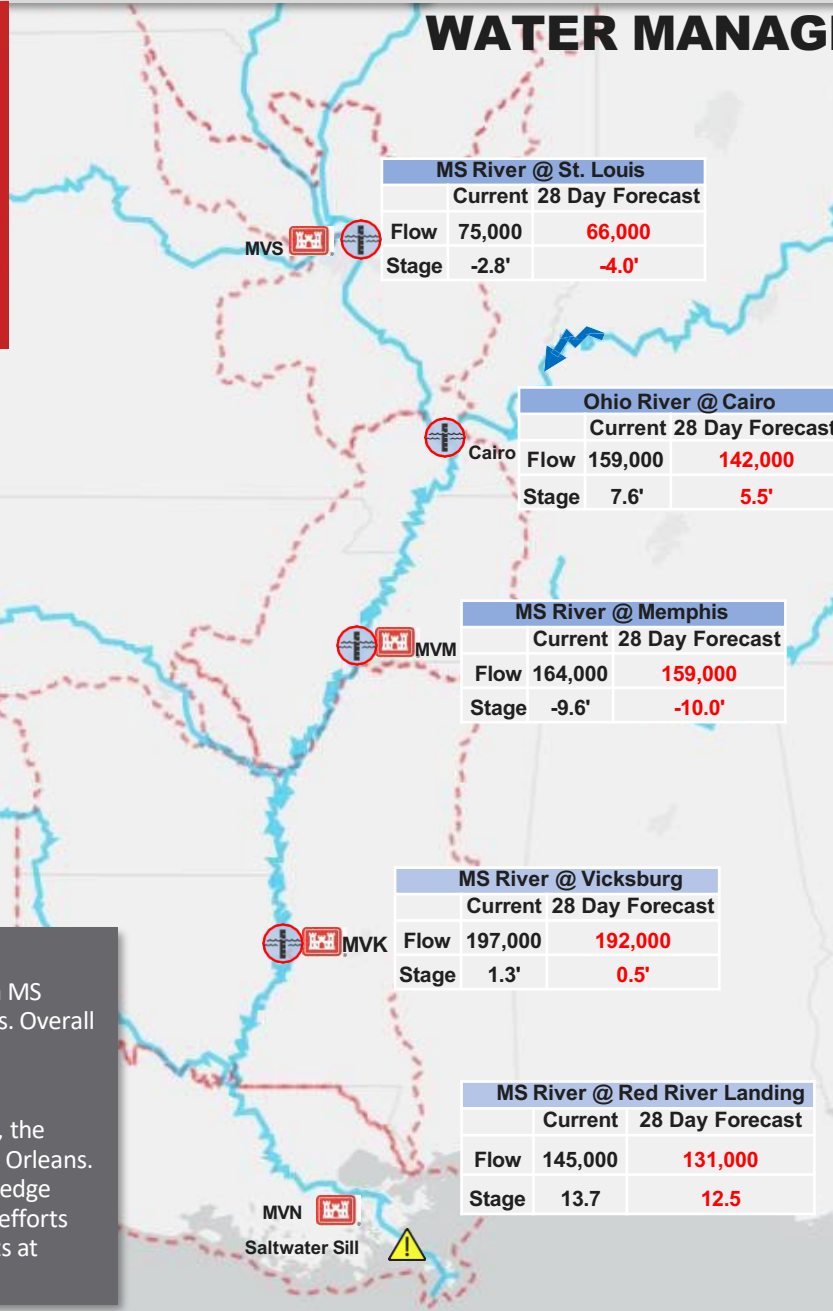


- Managed reservoirs to add water
- Continuous communication with Industry
- Channel marking in coordination with USCG
- Maintained authorized depth where possible
- Utilized 7 dredges on Mississippi River and 2 dredges on the lower Ohio River
- Constructed Saltwater Barrier to protect water intakes 11-27 July 2023
- Weekly updates to ASA(CW); USACE Leadership and the White House

MISSISSIPPI RIVER LOW WATER – WATER MANAGEMENT

Historic Low Stages

Forecast Location	2022 Low Stage	2012 Low Stage	1988 Low Stage	Post 1965 Record Low
St. Louis, MO	-3.7 (25-Dec)	-4.4	-3.2	-5.2 (1989)
Cairo, IL	4.8 (15-Oct)	7.2	4.9	4.8 (2022)
Memphis, TN	-10.8 (21-Oct)	-9.8	-10.7	-10.8 (2022)
Vicksburg, MS	-0.4 (25-Oct)	-1.1	-1.6	-1.6 (1988)
Baton Rouge, LA	4.2 (21-Oct)	3.4	1.8	1.8 (1988)



MS River @ St. Louis	
Current 28 Day Forecast	
Flow	75,000
Stage	-2.8'
28 Day Forecast	66,000
28 Day Forecast	-4.0'

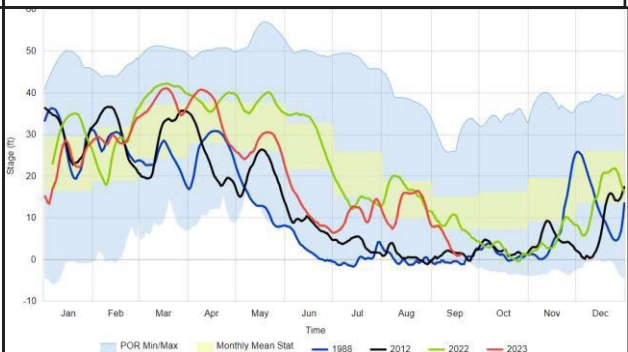
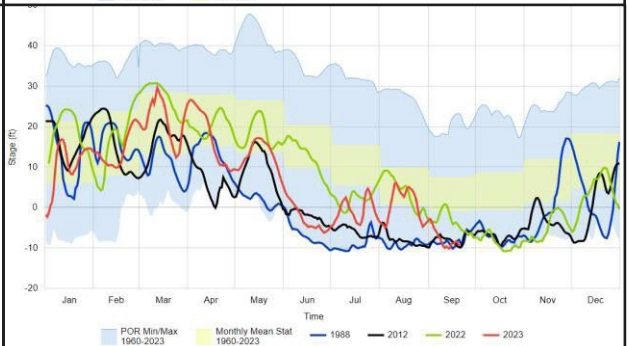
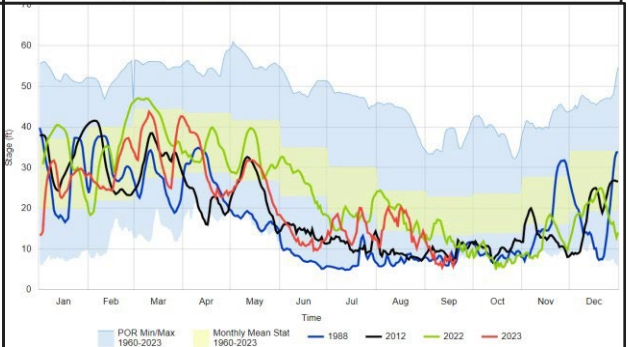
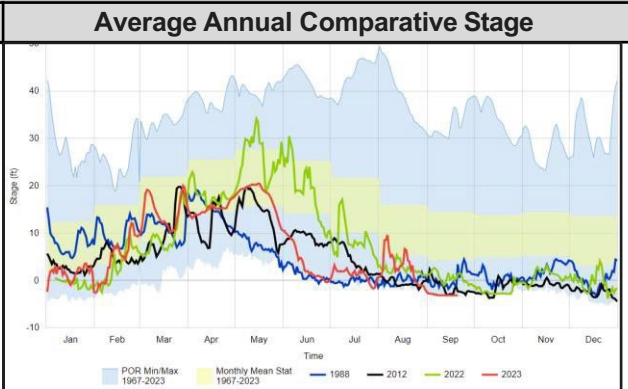
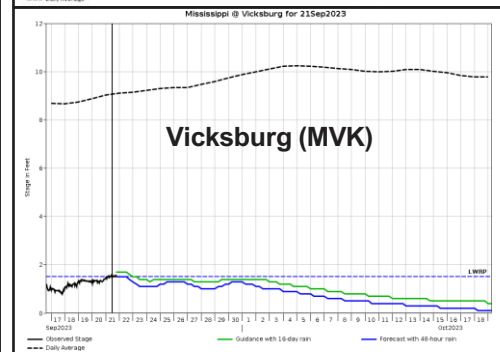
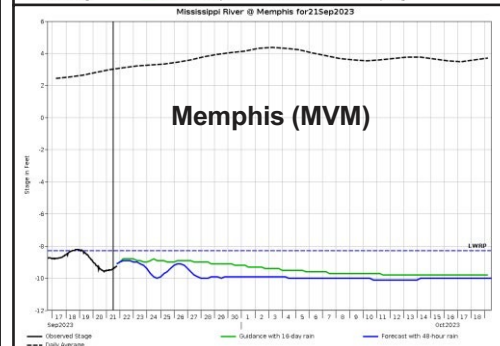
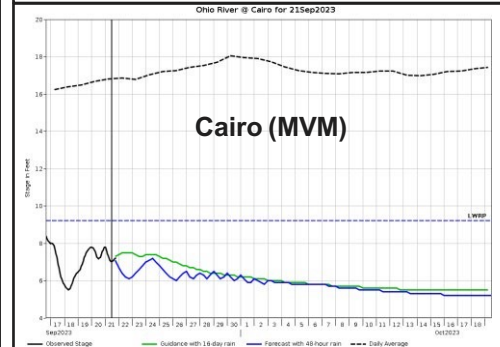
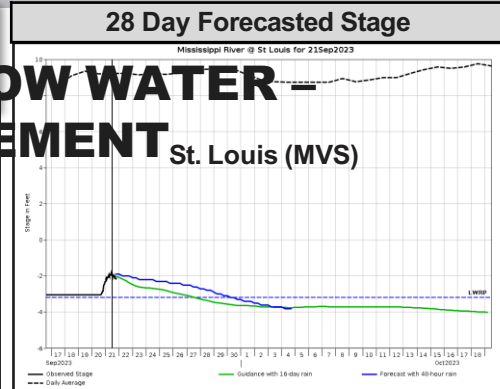
Ohio River @ Cairo	
Current 28 Day Forecast	
Flow	159,000
Stage	7.6'
28 Day Forecast	142,000
28 Day Forecast	5.5'

MS River @ Memphis	
Current 28 Day Forecast	
Flow	164,000
Stage	-9.6'
28 Day Forecast	159,000
28 Day Forecast	-10.0'

MS River @ Vicksburg	
Current 28 Day Forecast	
Flow	197,000
Stage	1.3'
28 Day Forecast	192,000
28 Day Forecast	0.5'

MS River @ Red River Landing	
Current 28 Day Forecast	
Flow	145,000
Stage	13.7
28 Day Forecast	131,000
28 Day Forecast	12.5

MVN
Saltwater Sill



Key POINTS

- Some rain on western tributaries of the mainstem MS River this week and next helping slightly at St. Louis. Overall dry trend continues will gradual flow recession trend continuing into October.
- With extremely low flows occurring in September, the saltwater wedge has again advanced towards New Orleans. Latest water samples indicate that the saltwater wedge had overtopped the existing sill. Sill augmentation efforts are underway which should delay saltwater impacts at Belle Chasse water intakes until Oct 13.