Tennessee River Valley Association Tennessee-Cumberland Waterways Council

Cline Jones Executive Director

Mark Holley Aerial Photography

# **KENTUCKY LOCK ADDITION - SCOPE**



### Remaining Project Scope: Approach Walls Electrical, Mechanical, Buildings, Bridges, Utilities Site Restoration

#### Current Contracts: DS Monoliths (\$380M) Closed Contracts:

**U.S. ARMY** 

Bridge Substructures (\$44M) – Complete MAR 2006 US Cofferdam (\$17M) – Complete NOV 2006 Bridge Superstructures (\$104M) – Complete JUL 2014 US MG Fab (\$5.6M) – Complete DEC 2016 US Lock (\$110M) – Complete FEB 2017 Site Demo Utilities (\$4.6M) – Complete MAR 2019 DS Excavation (\$54.8M) – Complete OCT 2022 DS Cofferdam (\$67.1M) – Complete MAR 2021

# KENTUCKY LOCK ADDITION-SCHEDULE/FUNDING



U.S. ARMY

FY02 FY03 FY04 FY05 FY00 PED (\$1.25M)	6 FY07 FY08 FY09 FY10 FY11	FY12 FY13 FY14 FY1	5 FY16 FY17 FY18	FY19 FY20 FY21 F	FY22 FY23 FY24 F	725 FY26 FY27
Upstream Cofferdam (\$1	7M)					
Substructure (\$44M)	Superstructure (\$104M)					
		US Lock Monoliths (\$1 US Miter Gat				
				erdam (\$67M) (\$5M)		
				DS Lock Excavation (\$65		(220010)
						ad Items
					Approach Walls Lock Operationa	······

#### Schedule comments:

- The FY25 budget did not include funding for Kentucky Lock. So, the project could not proceed as planned. The team is updating the cost and • schedule for the remaining work.
- · Planning on using existing funding to obtain long lead items and have two remaining major construction contracts.

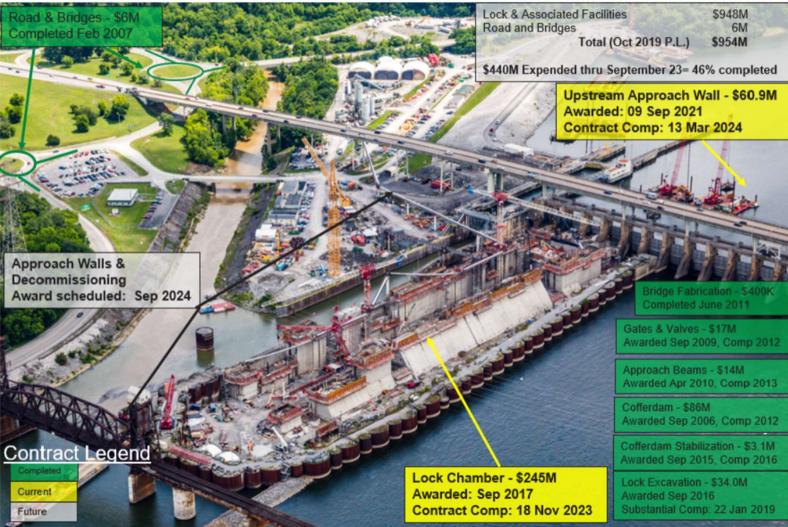


## KENTUCKY LOCK ADDITION-FUNDING SUMMARY



Allocations:	ARRA (\$M)	CG (\$M)	IWTF (\$M)	BIL (\$M)	Total (\$M)
Prior to FY 2017:	\$88.8	\$229.3	\$189.6	NA	\$507.8
FY18 Allocation:	NA	\$20.6	\$20.6	NA	\$41.2
FY19 Allocation:	NA	\$21.8	\$21.8	NA	\$43.6
FY20 Allocation:	NA	\$30.5	\$30.5	NA	\$61
FY21 Allocation:	NA	\$71.5	\$38.5	NA	\$110.1
FY22 Allocation:	NA	\$0	\$0	\$465.5	\$465.5
FY23 – 25 Allocation:	NA	\$0	\$0	\$0	\$0
Tatal ta Data	¢00.00	¢070.0	¢204.4	¢405 5	\$1,229.3
		\$0	\$0		

## CHICKAMAUGA LOCK - SCOPE

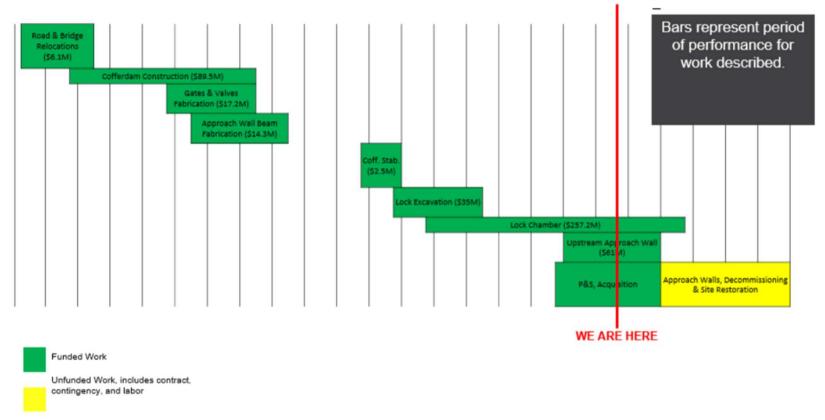


Project Name



## **CHICKAMAUGA LOCK – SCHEDULE & FUNDING**

FY2005 FY2005 FY2007 FY2008 FY2009 FY2010 FY2011 FY2012 FY2013 FY2014 FY2015 FY2016 FY2017 FY2018 FY2019 FY2020 FY2021 FY2022 FY2023 FY2024 FY2025 FY2025 FY2026 FY2027 FY2028 FY2029



#### Schedule comments:

- The Lock Chamber contract is significantly behind schedule, which is impacting follow on contract work; Alternative Dispute Resolution (ADR) on hold until DCAA
  audit is complete, currently in risk assessment phase.
- The March 2023 certified Total Project Cost and Schedule update estimated baseline project completion in September 2028 (80% confident completion by August 2030).

The new lock will become operational during the Approach Wall, Decommissioning, and Site Restoration contract.

Project Name



# **CHICKAMAUGA LOCK – FUNDING SUMMARY**

ALLOCATIONS	INVESTIGATION (M)	CG (M)	IWTF (M)	ARRA (M)	TOTAL (M)
Prior to FY 20	\$3.3	\$215.9	\$156.4	\$49.3	\$424.9
FY20	\$0	\$66.1	\$35.6	\$0	\$101.7
FY21	\$0	\$124.2	\$66.9	\$0	\$191
FY22	\$0	\$0	\$0	\$0	\$0
FY23	\$0	\$0	\$0	\$0	\$0
Total to Date:	\$3.3	\$406.2	\$258.8	\$49.3	\$717.6
		Re	maining TP	C Balance:	\$ 236.8

Total Project Cost (TPC)	\$954.4 M	FY23 Price
Authorized Cost:	\$717.6 M	WRDA 2020
Escalated Cost:	\$854.2 M	FY23 Price
902 Limit:	\$1,116 M	FY22
PED Cost:	\$64.0M	1 Mar 2023
S&A Cost:	\$23.2 M	1 Mar 2023

Fiscal Year	Funding Capa	abilities:								
FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	TOTAL
\$236.8N										\$236.8M

#### Commentary:

- The project was not funded in the FY22 or FY23 President Budget.
- The FY2023 Total Project Cost and Schedule update has been certified as of 16 March 2023.
  - TPC increased \$197.5M (26%)
  - o Approx. 2.5 years added to lock operation date (online); 3 years added to project completion date (baseline)
  - o Funds to request to be Fully Funded is \$236.8M

## BLACK WARRIOR/TOMBIGBEE RIVER: DEMOPOLIS LOCK – UPPER MITER SILL FAILURE - 16 JAN 2024

16 January 2024 Incident: Al 0600 the on-duty lock operator heard a loud noise and while investigating noticed water flowing under the upper miter gate. The concrete that comprises the upper miter sill fractured, allowing water to pass under the gate. The lower lock gates were open at time of the incident.

Project contacted District personnel to start planning courses of action. Notice to Mariners are being issued to update users.

Current operations are to close the lower miter gates to allow the pool to equalize and set the upper stoplogs to get the lock chamber under control. Operation will take place 19-21 January. Engineering and Operations are continuing to analyze the extent of damages and are working other courses of action to stop the flow and get the lock under control.

At this time, the extent of damages have not been determined. Once the lock is dewatered damage assessment and repair plans can be developed. No accurate estimate for closure duration is available at this time. This schedule will be refined once a full assessment of the damages can be performed.





Cracks in the monolith and a river-side culvert have led to water ingress that, under pressure, is causing the monolith to move. Mobile District engineers designed and installed steel bulkheads, essentially sealing off the cracks from water pressure during lock operations. They will soon begin a permanent fix that will utilize a post tensioning achoring system much like that used to stabilize the existing Chickamauga Lock.

# Wilson Lock Pintle and Guide Wall Failures

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