

# CHICKAMAUGA LOCK REPLACEMENT PROJECT

## INLAND WATERWAYS USERS BOARD MEETING NO. 98

Stephanie Hall  
Deputy District Engineer  
U.S. Army Corps of Engineers  
Nashville District  
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# CHICKAMAUGA LOCK OVERVIEW OF SCOPE



## **Authorization:**

- Energy and Water Appropriations Act of 2003
- Reauthorized in America's Infrastructure Act of 2018

## **Purpose/Description:**

Construction of a new 110' x 600' lock replacement for Chickamauga Lock on TN River Mile 471 in Chattanooga, Tennessee. Construction of a new lock is required due to Alkali Aggregate Reaction (AAR), which threatens the stability and operability of the existing lock. Chickamauga passes approximately 1M tons annually and the new lock would reduce commercial transit times by 80%. In addition, the lock is the most active lock on the TN River for recreation vessels (~3,500 vessel lockages annually).

## **Major Project Features:**

- Road and Bridge Relocations
- Cofferdam
- 110' x 600' Lock Chamber
- Approach Walls
- Operations Building
- Site Development



# PROJECT OVERVIEW OF SCOPE



# CHICKAMAUGA LOCK REPLACEMENT PROJECT: BLUF STATUS -SUMMARY DASHBOARD

## PROJECT SAFETY



Hours/Rate Lock Chamber	
Exp Hours	2,423,642
PDART	0.00
Hours/Rate USAW	
Exp Hours	10,819
PDART	0.00



## PROJECT STATUS SUMMARY

### Schedule:

	<u>Orig.</u>	<u>Last</u>	<u>Current</u>
Operational	Apr-24	Apr-24	TBD
Completion	Nov-25	Nov-25	TBD

**Note: Orig. and Last Completion Dates from 2020 TPCS.**

### Next Major Contract Award(s):

- Approach Walls and Decommissioning
- Site Restoration

## FINANCIAL STATUS SUMMARY



Planned (BCWS)	\$458.6M
Earned (BCWP)	\$354.5M
Actual (ACWP)	\$363.5M

**BCWP:** Reports the value (based on % Complete) of work performed to date

**Target:** Actual as compared to Planned:  
(<1% = green) (>1% and <3% = Yellow and (>3% = Red)

Data as of 01 July 2022

## EXECUTIVE SUMMARY:

### Lock Chamber Contract:

- **Schedule:** Required contract completion is 18 Oct 2023; Contractor's Operational Schedule indicates approx. 2-year delay.
- **Certified Claim:** ADR planned to occur in Spring 2023.
- **Concrete Placements:** Contractor continues to improve on monthly concrete placement rates.

### Upstream Approach Wall Contract:

- **Schedule:** Required contract completion date in Feb 2024, currently approx. -62 days behind.
- **Construction Status:** Exploratory drilling complete, Technique Shaft construction commenced.
- **Redesign:** Poor geology required a revision to planned foundation elevations; Partnering with contractor on path forward. Expect revised design to result in cost and time impact to contract completion.

### Approach Wall and Decommissioning Contract:

- Contract Package in development for future award upon site availability after Lock Chamber contract.

### Total Project Cost and Schedule Update:

- Team is developing update, incorporating increased project duration and escalation impacts.

# CHICKAMAUGA LOCK REPLACEMENT PROJECT - KEY ACTIVITIES SUMMARY

#	MAJOR ACTIVITIES:	Date Awarded	Last Reported Completion *	Current Est. *	Option Expires	% Complete
1.	Approach Walls Fabrication	05-Apr-04	08-Mar-13	Completed	n.a.	100%
2.	Cofferdam Stabilization	25-Sep-05	18-Jul-16	Completed	n.a.	100%
3.	Lock Excavation	31-Sep-05	22-Jan-19	Completed	n.a.	100%
4.	Lock Chamber	11-Aug-05	06-Oct-23	18-Oct-23	n.a.	53%
5.	Upstream Approach Wall	11-Aug-05	Feb-2024	Feb-2024	n.a.	6%
6.	Approach Walls and Decommission	TBD	TBD	TBD	-	-
7.	Site Restoration	TBD	TBD	TBD	-	-

\* Note: Above dates are required contractual completion dates.

## Commentary:

- The lock Chamber contract is significantly behind schedule, which is impacting follow on contract work; pursuing an Alternative Dispute Resolution (ADR) agreement to facilitate discussions.
- The June 2020 certified Total Project Cost and Schedule update estimated baseline project completion in November 2025 (80% confident completion by August 2027); this estimate will be revised during the Total Project Cost and Schedule update that is in development.
- The new lock will become operational during the Approach Wall and Decommissioning contract.

# CHICKAMAUGA LOCK REPLACEMENT PROJECT - KEY ACTIVITIES SUMMARY

## Chickamauga Lock Replacement, Tennessee River, KY

### Funding Overview

- Authorized Cost: \$757,880,000 (FY20 \$)
- 902 Limit: \$1,199,079,200 (FY22 \$)
- ARRA (FY09-13) \$62,400,000
- Engineering & Design Costs: \$63,968,462 (thru FY22)
- Supervision & Admin Cost: \$23,195,497 (thru FY22)
- Mitigation Cost: TBD

	ARRA	CG	IWTF	BIL	Total
Allocations through FY 2016:	\$49,307,619	\$84,691,511	\$84,689,500	NA	\$218,688,630
FY17 Allocation:	NA	\$20,000,000	\$20,000,000	NA	\$40,000,000
FY18 Allocation:	NA	\$38,250,000	\$38,250,000	NA	\$76,500,000
FY19 Allocation:	NA	\$76,245,000	\$13,455,000	NA	\$89,700,000
FY20 Allocation:	NA	\$66,105,000	\$35,595,000	NA	\$101,700,000
FY21 Allocation:	NA	\$124,150,000	\$66,850,000	NA	\$191,000,000
FY22 Allocation (IJA):	NA	\$0	\$0	\$0	\$0
<b>Total Allocations to Date:</b>	<b>\$49,307,619</b>	<b>\$409,441,511</b>	<b>\$258,839,500</b>	<b>\$0</b>	<b>\$717,588,630</b>
<b>Remaining TPC Balance:</b>					<b>\$39,291,370</b>

Note: Remaining TPC Balance based on June 2020 Total Project Cost Estimate (FY2020 Price Level)

### Commentary:

- The FY2022 Total Project Cost Update is currently in development.
- The project is in the FY23 President Budget for \$39.3M

### Fiscal Year Funding Capabilities:

- Pending FY22 TPCS Update.



# PROJECT DETAILS – PROGRESS AND ISSUES



- The Lock Chamber contractor is significantly behind and efforts to regain schedule to achieve the current required contract completion date of 18 October 2023 have not been successful to date. The previously reported new lock operational date of April 24 will not be achieved; a new on-line date will be estimated after confirming schedules for the Lock Chamber contract and follow-on work.
- The Lock Chamber Certified Claim alleges cost and schedule impacts due to a variety of items, most notably COVID-19. The claim is currently moving toward ADR that is likely to occur in the Spring 2023 timeframe.
- Current Market Conditions, extended Project Duration, and increased Inflationary rates will have impacts on required cost to complete the project.



# THANK YOU

Point of Contact:  
Zach Langel, P.E.

Project Manager – Programs and Project Delivery Branch

Email: [Zach.A.Langel@usace.army.mil](mailto:Zach.A.Langel@usace.army.mil)

Office: 615-736-7851

