

# CHICKAMAUGA LOCK REPLACEMENT PROJECT

## INLAND WATERWAYS USERS BOARD MEETING NO. 100

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CHIEF OF INTEGRATED PROJECT OFFICE  
U.S. ARMY CORPS OF ENGINEERS  
NASHVILLE DISTRICT  
20 JUNE 2023



U.S. ARMY



US Army Corps  
of Engineers®



# CHICKAMAUGA LOCK - OVERVIEW

## 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).

## Schedule:

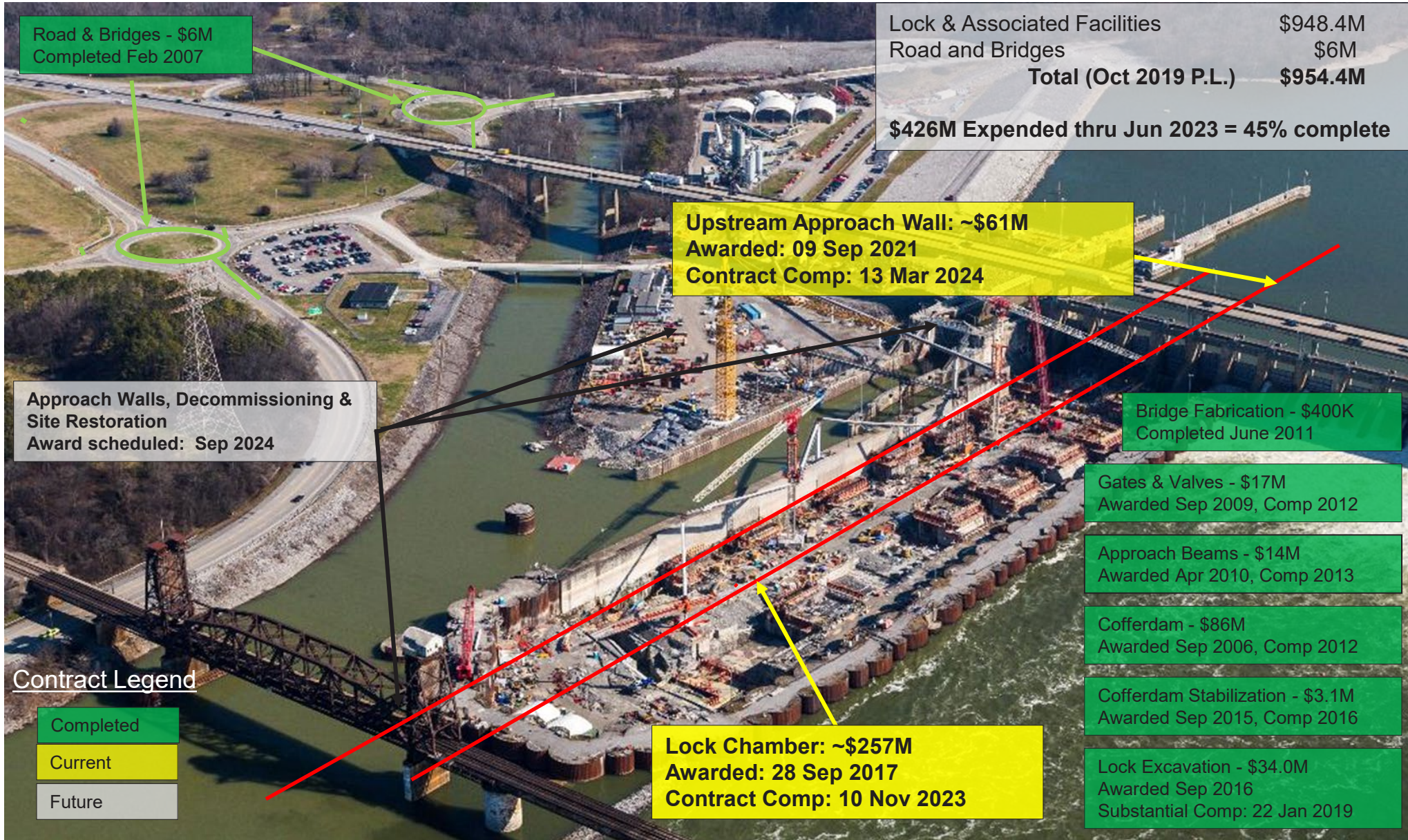
DESCRIPTION	ORIGINAL	CURRENT
Lock Operational (Online)	2024	2026-2027
Project Completion Date (Base Schedule)	2025	2028-2029

## Cost:

- Total Project Cost Estimate: \$ 954,396,000 (Oct 2022 P.L.); Certified 16 Mar 2023
- Section 902 Limit = \$1,199,079,200 (FY22)



# CHICKAMAUGA LOCK - SCOPE





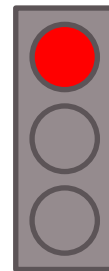
# CHICKAMAUGA LOCK – BLUF STATUS / DASHBOARD

## PROJECT SAFETY



Hours/Rate	Lock Chamber
Exp Hours	2,587,034
PDART	1.2
Hours/Rate	USAW
Exp Hours	33,856
PDART	0.00

## PROJECT STATUS SUMMARY



Schedule:	<u>Original</u>	<u>Last</u>	<u>Current</u>
Operational	Apr-24	Apr-24	Nov-26
Completion	Nov-25	Nov-25	Sep-28

**Note:** Orig. and Last Completion Dates from 2020 TPCS; Current Completion Date from 2023 TPCS

**Next Major Contract Award(s):**

- Approach Walls, Decommissioning & Site Restoration

## FINANCIAL STATUS SUMMARY



Planned	(BCWS)	\$422.6 M
Earned	(BCWP)	\$401.6 M
Actual	(ACWP)	\$399.3 M

**BCWP:** Reports the value (based on % Complete) of work performed to date (1APR23)

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

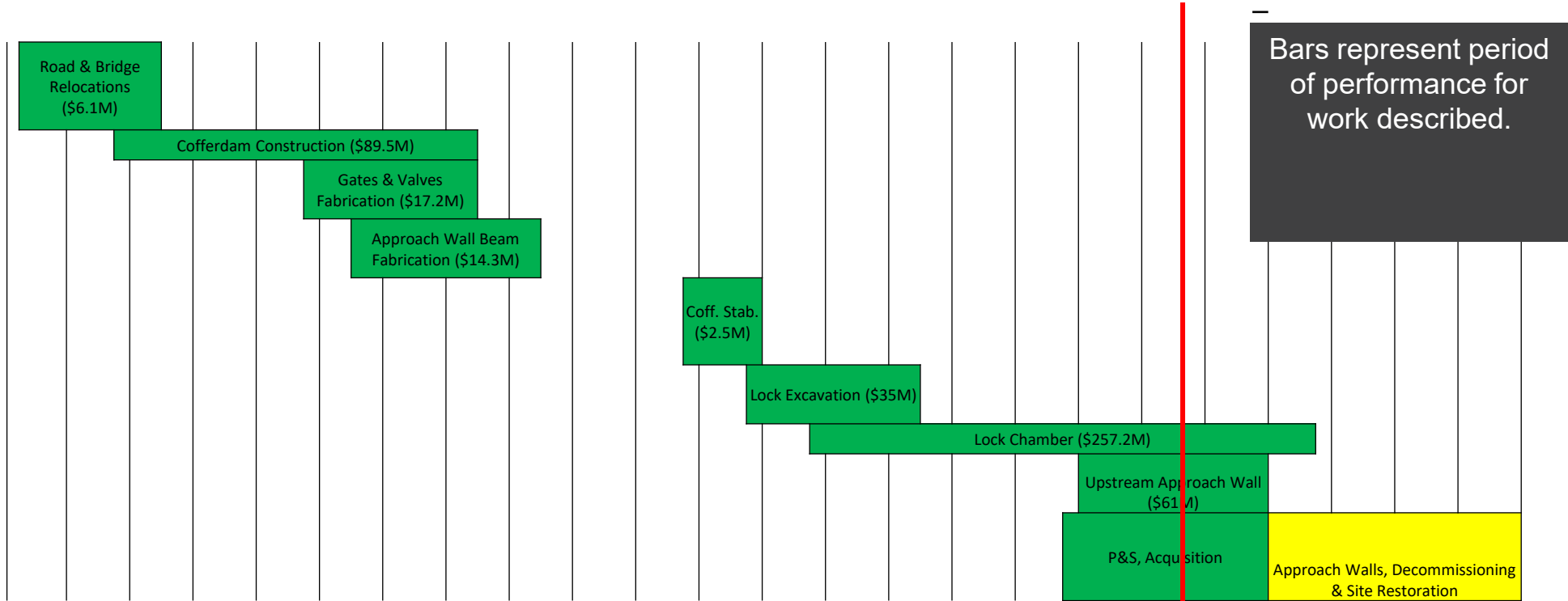
## EXECUTIVE SUMMARY:

- **Lock Chamber Contract:**
  - **Schedule:** Required contract completion is 10 Nov 2023; Contractor's Operational Schedule indicates approx. 2-year delay.
  - **Certified Claim:** ADR is scheduled for February 2024. DCAA is currently in risk assessment phase and will be complete in October 2023
  - **Concrete Placements:** Contractor continues to improve on monthly concrete placement rates, currently averaging over 6,000 CY per month
- **Upstream Approach Wall Contract:**
  - **Schedule:** Required contract completion date in Mar 2024, currently approx. -233 days behind.
  - **Construction Status:** Technique Shaft completed. Preparing for drill shaft work.
  - **Redesign:** Poor geology required a revision to planned foundation elevations; Contractor submitted a VECP for the redesign of the drill shafts and currently being reviewed. Expect revised design to result in cost and time impact to contract completion.
- **Approach Wall, Decommissioning & Site Restoration Contract:**
  - Contract Package in development for future award upon site availability after Lock Chamber contract.



# CHICKAMAUGA LOCK – SCHEDULE & FUNDING

FY2005 FY2006 FY2007 FY2008 FY2009 FY2010 FY2011 FY2012 FY2013 FY2014 FY2015 FY2016 FY2017 FY2018 FY2019 FY2020 FY2021 FY2022 FY2023 FY2024 FY2025 FY2026 FY2027 FY2028 FY2029



Bars represent period of performance for work described.

WE ARE HERE

- Funded Work
- Unfunded Work, includes contract, contingency, and labor

**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.



# 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
Remaining TPC 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:	\$1,199.1 M	FY20
PED Cost:	\$64.0M	1 Mar 2023
S&A Cost:	\$23.2 M	1 Mar 2023

## Fiscal Year Funding Capabilities:

FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	TOTAL
\$200M	\$11M	\$10M	\$10M	\$6M						\$237M

## Commentary:

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



# CHICKAMAUGA LOCK – ISSUES/CHALLENGES

- The Lock Chamber contractor is significantly behind and efforts to regain schedule to achieve required contract completion date of 10 November 2023 have not been successful to date. The new lock operational date is November 2026.
- The Lock Chamber Certified Claim alleges cost and schedule impacts due to a variety of items, most notably COVID-19. ADR is planned for Feb 2024.



# THANK YOU

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