

CHICKAMAUGA LOCK REPLACEMENT PROJECT

INLAND WATERWAYS USERS BOARD MEETING NO. 99

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Nashville District
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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

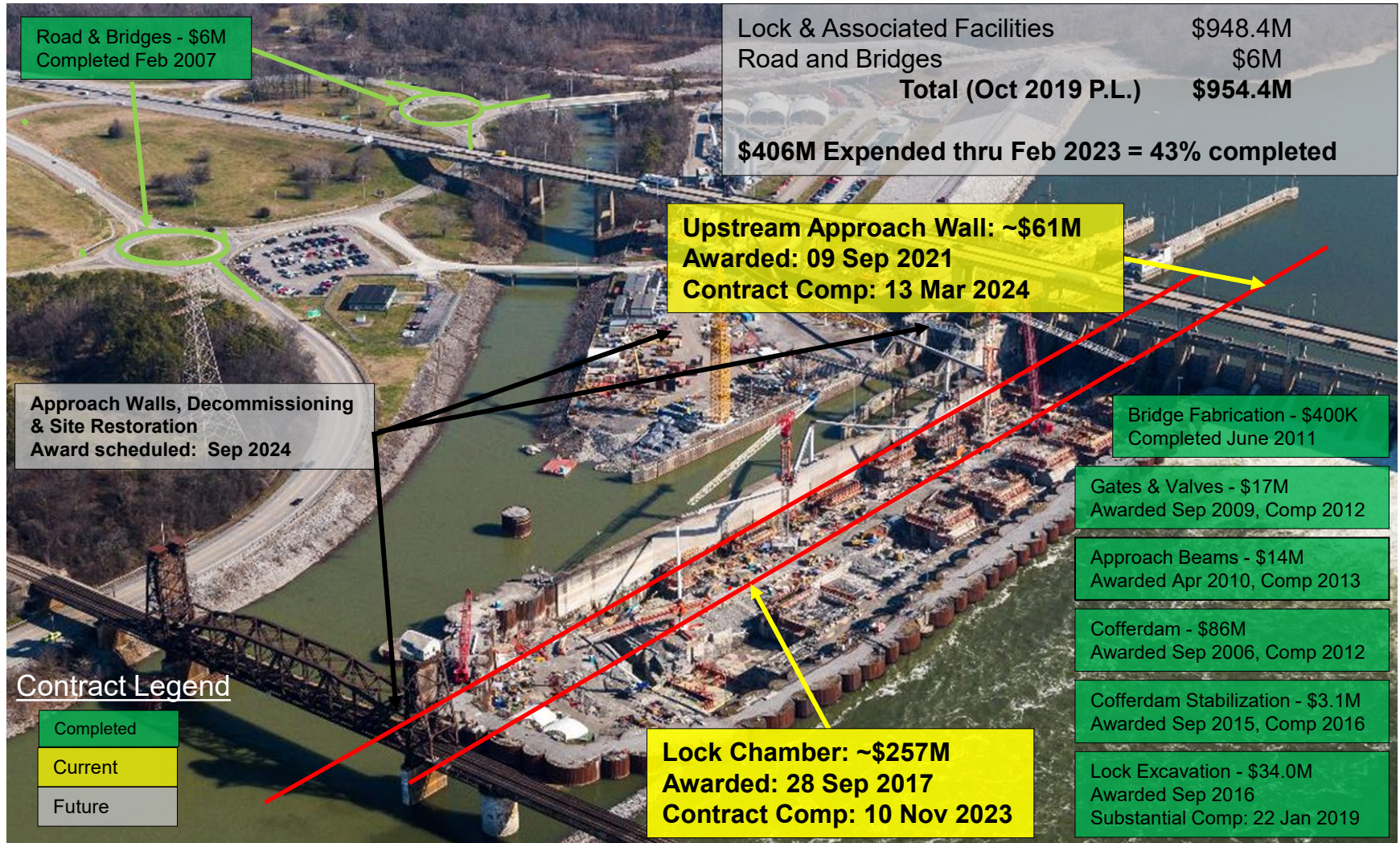
Cost:

- Total Project Cost Estimate: \$954,396,000 (Oct 22 Price Level); Certified 16 Mar 23
- Section 902 Limit = \$1,199,079,200 (FY22)



CHICKAMAUGA LOCK - SCOPE

3





CHICKAMAUGA LOCK – BLUF STATUS / DASHBOARD



PROJECT SAFETY



Hours/Rate	Lock Chamber
Exp Hours	2,832,006
PDART	0.30
Hours/Rate	USAW
Exp Hours	21,922
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			

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

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

EXECUTIVE SUMMARY:

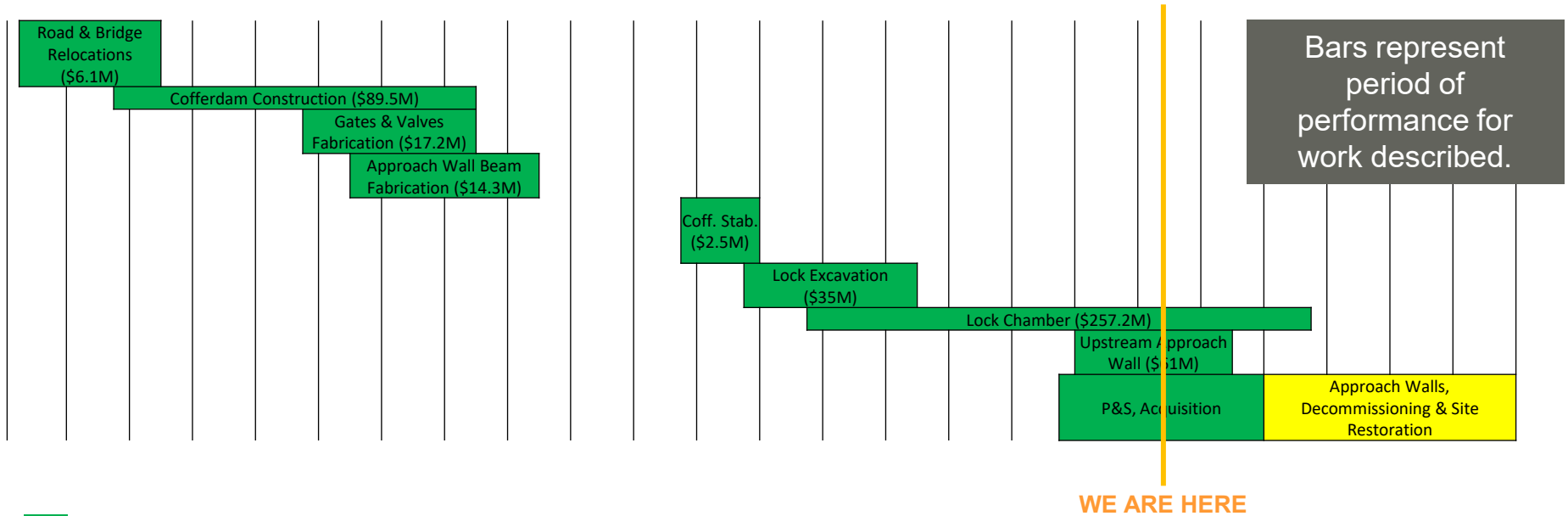
- **Lock Chamber Contract:**
 - **Schedule:** Contract Required Completion Date is Nov 2023; Contractor's Operational Schedule shows demobilization in Aug 2025.
 - **Construction Status:** Contract is 56 percent complete. Topping off of first monolith planned for April.
 - **Concrete Placements:** Contractor's production rates have been acceptable and meeting goals.
- **Upstream Approach Wall Contract:**
 - **Schedule:** Contract Required Completion Date is Mar 2024, expect contractor's full mobilization in May.
 - **Construction Status:** Contract is 12 percent complete. Technique shaft completed, preparing for drill shaft work.
 - **Differing Site Conditions:** Poor geology has required revisions to planned foundation elevations; Contractor submitted a Value Engineering Cost proposal for the redesign of the drill shafts.
- **Approach Wall, Decommissioning & Site Restoration Contract:**
 - **Schedule:** Design and contract solicitation are being developed with plan to be in a position to make an award in 2024.



CHICKAMAUGA LOCK – TIMELINE



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



Funded Work



Unfunded Work, includes contract, contingency, and labor

Schedule comments:

- Schedule has shifted to the right based on recent Total Project Cost and Schedule update.



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
\$237M										\$237M

Commentary:

- The FY2023 Total Project Cost Estimate (TPCE) and Schedule update was certified as of 16 March 2023.
 - TPCE increased \$197.5M (26%)
 - Approx. 2.5 years added to lock operation date (online); 3 years added to project completion date (baseline)
 - An additional \$237M is required to fully fund project to current Total Project Cost Estimate.
 - Contract award for remaining work is planned for 2024.
 - BCR is 1.0 and RBRCR is 2.5 at based 2018 TPCE (2018 Price Level). Update in progress based on 2023 TPCE.



CHICKAMAUGA LOCK – ISSUES/CHALLENGES



- The Lock Chamber contractor is significantly behind and efforts to regain schedule to achieve the current required contract completion date of 10 November 2023 have not been successful to date. Contractor has committed to an August 2025 demobilization from the site. Contractor vacating the lock chamber is critical to the timing of future contract actions.
- The Lock Chamber Certified Claim alleges cost and schedule impacts due to a variety of items, most notably COVID-19. USACE and contractor are working through Alternate Dispute Resolution process. Defense Contracting Audit Agency audit is on-going.
- Current Market Conditions, extended Project Duration, and increased Inflationary rates will have impacts on required cost to complete the project.
- Very competitive labor market with limited labor resources available.



THANK YOU



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