

KENTUCKY LOCK ADDITION

Inland Waterways Users Board
Meeting No. 101
October 19, 2023

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LRN IPO Chief
U.S. Army Corps of Engineers
Nashville District, IPO-K



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KENTUCKY LOCK - OVERVIEW



Authorization:

- Water Resources Development Act (WRDA) of 1996 (P.L 104-303)
- Reauthorized in WRDA 2020 (P.L. 116-260)

Purpose/Description:

Construction of a new 110' x 1200' lock addition at Kentucky Lock. The existing navigation lock is too small to meet current and future traffic demands without significant delays. The new Lock will accommodate 15 barges (Max amount allowed on TN river) per lockage as opposed to the existing 110 ft x 600 ft lock's 9 barge per lockage Kentucky Lock's delays are among the highest in the country.

Schedule:

	Original	Current
Lock Operational (Online)	SEP-2025	JUL-2029
Project Completion Date (Base Schedule)	MAY-2028	SEP-2030
(80% Confidence Level) Project Completion Date = March 2033		

Cost:

Cost Estimate = \$1,561,073,000 (FY2022 Price Level). Certified 21-Apr-2022

Note: LRN performed an interim Total Project Cost Estimate (Not Certified) on 25-May-2023. No significant changes were identified. LRN plans to conduct a full certified Cost Estimate in December of this year.

Section 902 Limit = \$1,630,303,000

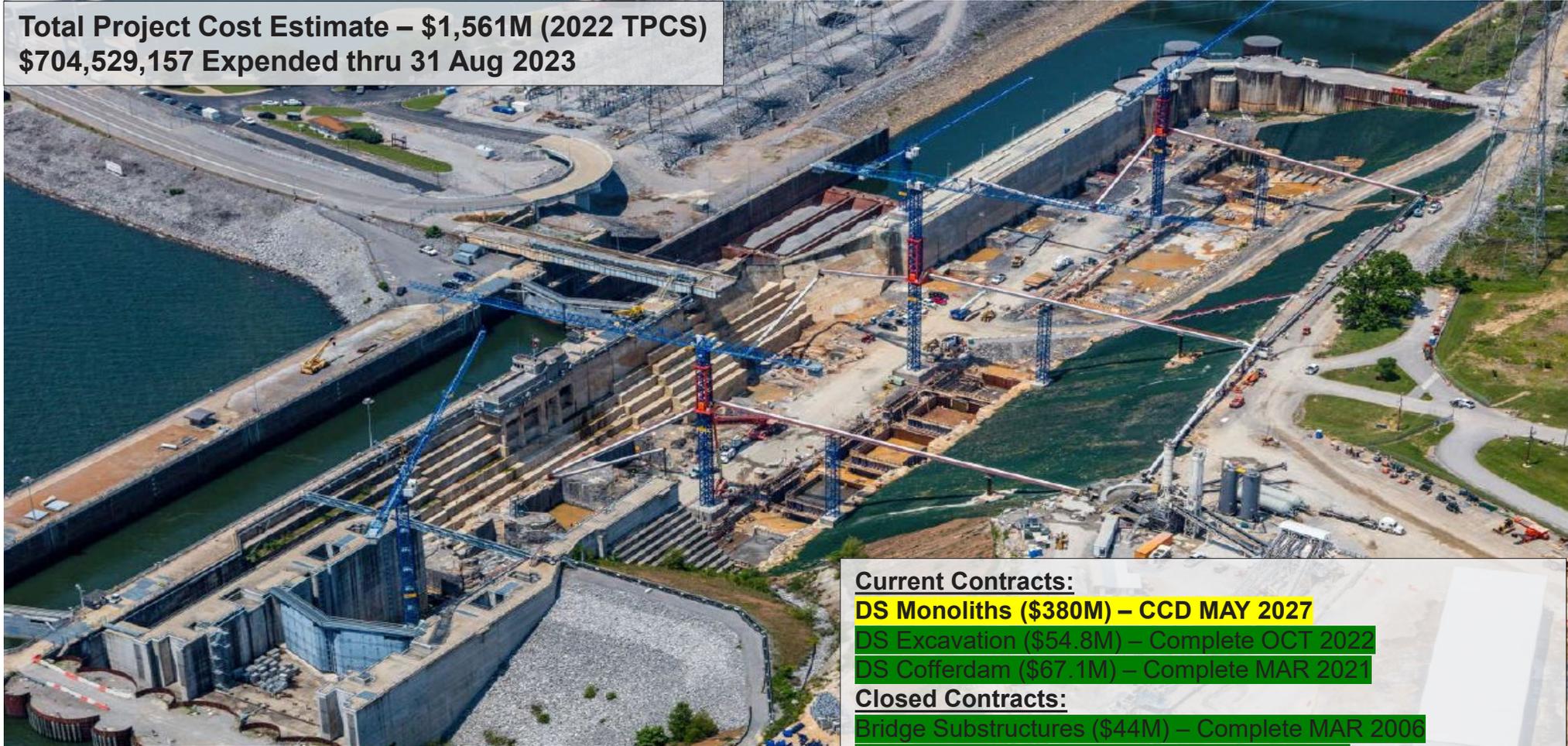


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KENTUCKY LOCK ADDITION - SCOPE



Total Project Cost Estimate – \$1,561M (2022 TPCS)
\$704,529,157 Expended thru 31 Aug 2023



Remaining Project Scope:

- Approach Walls (AWC)
- E/M, Buildings, Bridges, Utilities (EMBC)
- East Bank Development (EBSD)

Completed

Current

Future

Current Contracts:

DS Monoliths (\$380M) – CCD MAY 2027

DS Excavation (\$54.8M) – Complete OCT 2022

DS Cofferdam (\$67.1M) – Complete MAR 2021

Closed Contracts:

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) – MAR 2019



KENTUCKY LOCK - BLUF STATUS / DASHBOARD

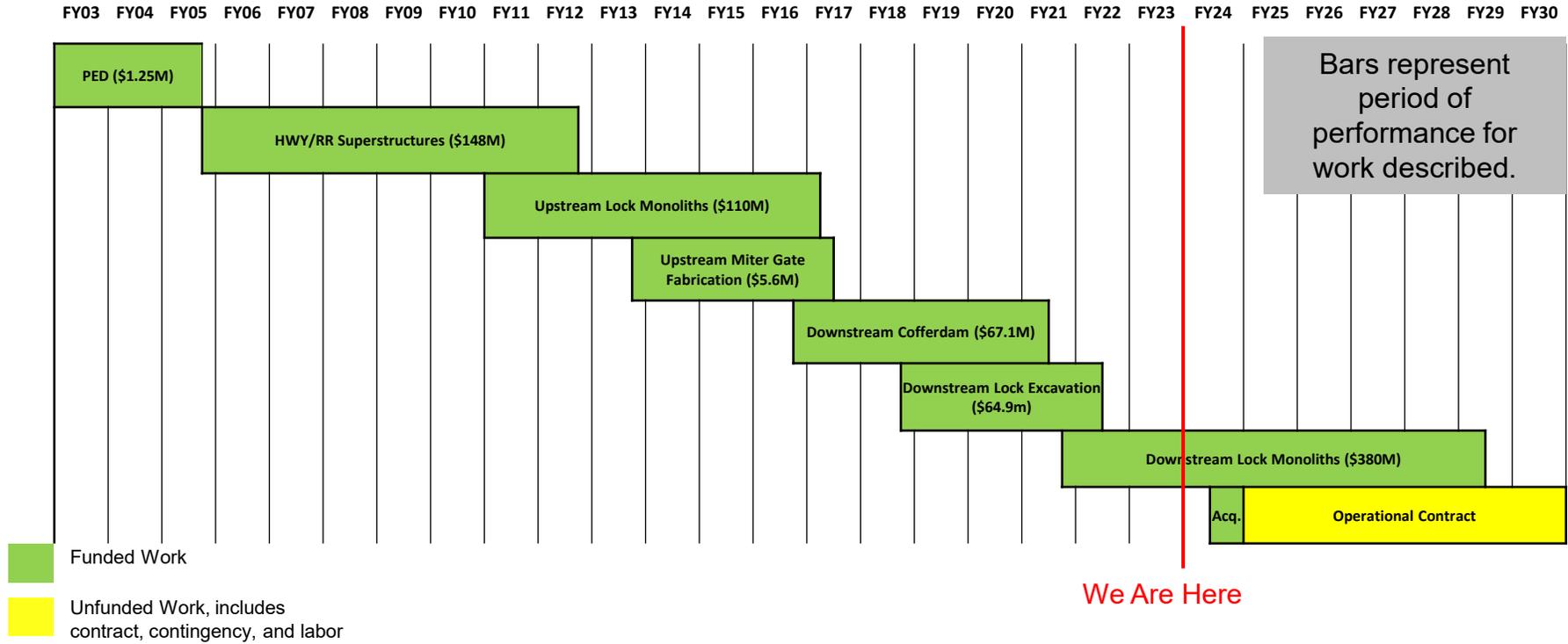
PROJECT SAFETY	PROJECT STATUS SUMMARY	FINANCIAL STATUS SUMMARY																		
 <p>Hours/Rate DS Monoliths Exp Hours 446,812 PDART 0.45</p>	 <p>Schedule:</p> <table border="1"> <thead> <tr> <th></th> <th>Orig.</th> <th>Last</th> <th>Current</th> </tr> </thead> <tbody> <tr> <td>Operational</td> <td>Sep-25</td> <td>Jul-29</td> <td>Jul-29</td> </tr> <tr> <td>Completion</td> <td>May-28</td> <td>Sep-30</td> <td>Sep-30</td> </tr> </tbody> </table> <p>Next major Contract Award: Lock Operational construction contract</p>		Orig.	Last	Current	Operational	Sep-25	Jul-29	Jul-29	Completion	May-28	Sep-30	Sep-30	 <table border="1"> <tbody> <tr> <td>Planned (BCWS)</td> <td>\$664.9M</td> </tr> <tr> <td>Earned (BCWP)</td> <td>\$680.3M</td> </tr> <tr> <td>Actual (ACWP)</td> <td>\$680.2M</td> </tr> </tbody> </table> <p>BCWP: Reports the value (based on % Complete) of work performed to date</p> <p>Target: Actual as compared to Planned: (<1% = green) (>1% and <3% = Yellow and (>3% = Red)</p>	Planned (BCWS)	\$664.9M	Earned (BCWP)	\$680.3M	Actual (ACWP)	\$680.2M
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Data as of 31 Aug 2023		Data as of June 2023																		

EXECUTIVE SUMMARY:

- Downstream Lock Excavation – Required Contract Completion occurred on 21-Oct2022.
- Downstream Lock Monolith – On track to complete on May-2027.
- The Certified FY22 TPCS Update identified additional funding need of ~\$332M to complete the project.
- Team is working to develop the contract that will bring the new lock on-line. Contract award is planned for FY25.



KENTUCKY LOCK – SCHEDULE & FUNDING



Schedule comments:

- Schedule dates have not changed since last meeting
- The Lock Operational Construction Contract is the next significant award to bring the project on-line; Award planned for FY25



KENTUCKY LOCK ADDITION – FUNDING SUMMARY



	ARRA	CG	IWTF	BIL	Total
Allocations through FY 2017:	\$88,833,626	\$229,381,288	\$189,660,987	NA	\$507,875,901
FY18 Allocation:	NA	\$20,600,000	\$20,600,000	NA	\$41,200,000
FY19 Allocation:	NA	\$21,800,000	\$21,800,000	NA	\$43,600,000
FY20 Allocation:	NA	\$30,530,000	\$30,530,000	NA	\$61,060,000
FY21 Allocation:	NA	\$71,565,000	\$38,535,000	NA	\$110,100,000
FY22 Allocation:	NA	\$0	\$0	\$465,492,000	\$465,492,000
FY23 Allocation:	NA	\$0	\$0	\$0	
Total Allocations to Date:	\$88,833,626	\$373,876,288	\$301,125,987	\$465,492,000	\$1,229,327,901
Remaining TPC Balance:					\$332,000,000

Total Project Cost (TPC)	\$1,561 M	FY22 Price
Authorized Cost:	\$1,229 M	WRDA 2020
Escalated Cost:	\$1,397 M	FY22 Price
902 Limit:	\$1,630 M	May 2022
PED Cost:	\$9.2 M	FY97
EDC Cost:	\$124.6 M	01 Mar 2023
S&A Cost:	\$31.7 M	01 Mar 2023

Fiscal Year Funding Capabilities: add additional years if required

FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	TOTAL
\$0	\$75M	\$168M	\$62M	\$27M	\$0	\$0	\$0	\$0	\$0	\$332M

Commentary:

- The latest cost estimate indicates an additional \$332 million is needed to finish the project.
- The Future Annual Efficient funding stream is subject to change based on economic conditions, e.g. future contract award amounts.



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KENTUCKY LOCK – ISSUES/CHALLENGES



1. Lock Operational Contract - Team is working to develop the contract that will bring the new lock on-line as soon as possible. The scope includes Approach Walls, Electrical/Mechanical, Buildings, Bridges, and Utilities. Contract award is planned for FY25.
2. Increased costs and availability issues associated with Labor and Supply Markets required to complete remaining scope could impact estimated total project cost estimate and completion schedule.



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THANK YOU

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