

KENTUCKY LOCK ADDITION

INLAND WATERWAYS USERS
BOARD MEETING NO. 102
11 APRIL 2023

Elizabeth M. Burks, P.E., PMP, LSS-BB
LRN IPO Chief
U.S. Army Corps of Engineers
Nashville District, IPO-K



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KENTUCKY LOCK - OVERVIEW

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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 4th Quarter 2024.

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



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KENTUCKY LOCK ADDITION - SCOPE

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Total Project Cost Estimate – \$1,561M (2022 TPCS)
\$740,748,155 Expended thru 29 Feb 2024



Remaining Project Scope:

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

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


Completed

Current

Future

KENTUCKY LOCK - BLUF STATUS / DASHBOARD


PROJECT SAFETY



Hours/Rate DS Monoliths
Exp Hours ~865,165
PDART 0.0

Data as of 31 Jan 2024

PROJECT STATUS SUMMARY




Schedule:

	Orig.	Last	Current
Operational	Sep-25	Jul-29	Jul-29
Completion	May-28	Sep-30	Sep-30

Next major Contract Award:
Lock Operational construction contract

FINANCIAL STATUS SUMMARY



Planned	(BCWS)	\$664.9M
Earned	(BCWP)	\$680.3M
Actual	(ACWP)	\$680.2M

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 June 2023

EXECUTIVE SUMMARY:

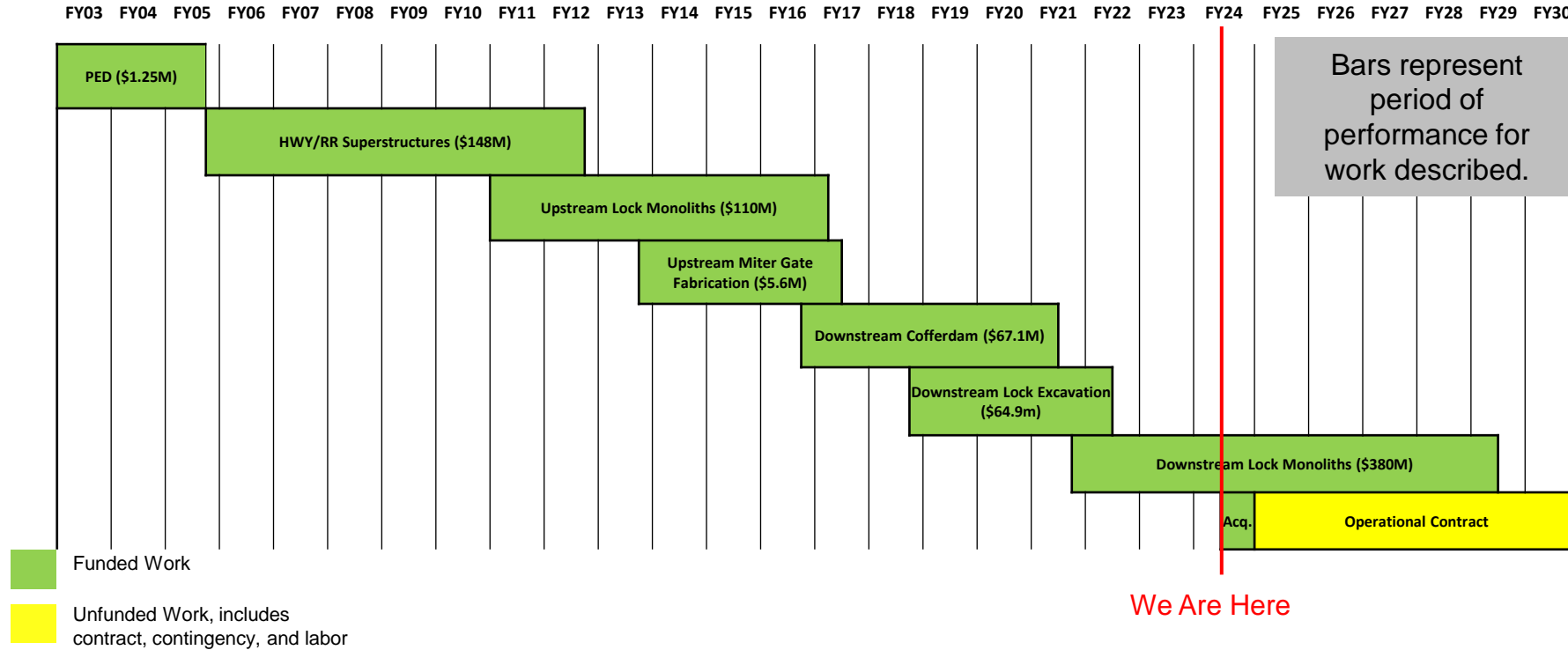
- Downstream Lock Monolith – On track to complete in May-2027.
- The Certified FY22 TPCS Update identified additional funding need of \$332M to complete the project.
 - LRN plans to conduct a full certified Cost Estimate in 4th Quarter of 2024.
- Team is working on the operation contract package, leaning forward with an integrated design and construction acquisition strategy to reduce risk to the operation date scheduled in 2029. Contract award is planned for FY25.



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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



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KENTUCKY LOCK ADDITION – FUNDING SUMMARY

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	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 - 24 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	\$332M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$332M

* While full capability for FY25 is \$332M, minimum funding required to stay on schedule is \$218M

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. In order to meet the 2029 operation date, additional funds will be needed in 2nd Quarter of FY25. The scope includes Approach Walls, Electrical/Mechanical, Buildings, Bridges, and Utilities.



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THANK YOU

Bob Winters, PMP
Project Manager – CELRN-IPO-K
Email: Robert.I.winters@usace.army.mil
Cell: 615-202-2445

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