

KENTUCKY LOCK ADDITION PROJECT UPDATE

INLAND WATERWAYS USERS BOARD MEETING NO. 98

Stephanie Hall
Deputy District Engineer
U.S. Army Corps of Engineers
Nashville District
01 December 2022

***World-Class Delivery...
Real-World Impact!***



US Army Corps
of Engineers®





KENTUCKY LOCK OVERVIEW OF SCOPE



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. Kentucky Lock's delays are among the highest in the country. In the last three years, the average delay for vessels transiting the lock has been over 10 hours. The addition of a new larger lock will essentially eliminate these delays well into the future.

Major Project Features:

- Relocations (High Voltage Transmission Towers, Highway and Railroad Bridges)
- Upstream and Downstream Cofferdams
- 110' x 1200' Lock Chamber
- Approach Walls
- Maintenance and Operations Building
- Site Development



KENTUCKY LOCK: BLUF STATUS - SUMMARY DASHBOARD



PROJECT SAFETY



Hours/Rate DS Monoliths
Exp Hours 87,758.50
PDART 0.00

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)	\$828.3M
Earned	(BCWP)	\$612.8M
Actual	(ACWP)	\$598.2M

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 01 July 2022

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 - KEY ACTIVITIES SUMMARY

#	MAJOR ACTIVITIES:	Date Awarded	Last Reported Completion	Current Est.	Option Expires	% Complete
1.	Upstream Cofferdam	30-Sep-16	Nov-06	Completed	N/A	100%
2.	HWY /RR Substructure	19-Sep-05	Mar-08	Completed	N/A	100%
3.	HWY /RR Superstructures	19-Sep-05	Jul-14	Completed	N/A	100%
4.	Upstream Miter Gate Fabrication	30-Sep-13	Dec-16	Completed	N/A	100%
5.	Upstream Lock Monoliths	29-Jan-10	Feb-17	Completed	N/A	100%
6.	Site, Demolition & Utilities	31-Jan-18	Mar-19	Completed	N/A	100%
7.	Downstream Cofferdam	30-Sep-16	Jul-21	Completed	N/A	100%
8.	Downstream Lock Excavation	30-Sep-20	Oct-22	Completed	N/A	100%
9.	Downstream Lock Monoliths	30-Sep-21	May-27	May-27	N/A	7%
10.	Lock Operational Contract	TBD		TBD	-	-

Commentary:

- Downstream Lock Excavation – Required Contract Completion occurred on 21-Oct2022
- Downstream Lock Monolith – On track to complete on 16-May-2027
- Lock Operational Contract- Team is working to develop the final contract that will bring the new lock on-line. Scope includes Approach Walls, Electrical/Mechanical, Buildings, Bridges, Utilities, East Bank Site Development. Contract Award is planned for FY25.
- Areas of opportunity to reduce cost/schedule risks are being explored



KENTUCKY LOCK - FUNDING SUMMARY



Kentucky Lock Addition, Tennessee River, KY

Funding Overview

- **Authorized Cost:** \$1,561,073,000 (FY22 \$)
- **902 Limit:** \$1,630,303,000 (FY22 \$)
- **ARRA (FY09-13)** \$88,833,626
- **Engineering & Design Costs:** \$120,135,99
- **Supervision & Admin Cost:** \$28,469,641
- **Mitigation Cost:** TBD

	ARRA	CG	IWTF	BIL	Total
Allocations through FY 2016:	\$88,833,626	\$211,381,288	\$171,660,987	NA	\$471,875,901
FY17 Allocation:	NA	\$18,000,000	\$18,000,000	NA	\$36,000,000
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
v(IJA):	NA	\$0	\$0	\$465,492,000	\$465,492,000
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

Note: 2022 Total Project Cost Estimate of \$1.56B at a FY22 Price Level assuming a September 2030 project completion

Commentary:

- **The Certified FY22 TPCS Update** identified additional funding need of ~\$332M to complete the project.
- The current Total Project Cost Estimate indicates the project is expected to be completed below the Section 902 cost limit of \$1.63B at the FY22 price Level

Fiscal Year Funding Capabilities:

FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total
\$0	\$0	\$75M	\$168M	\$62M	\$27M	\$0	\$0	



KENTUCKY LOCK – PROGRESS AND ISSUES



1. Downstream Monoliths – The Contractor owned Concrete Batch Plant and the Quality Assurance/ Quality Control lab are complete. First concrete placement (Mud mats) is scheduled for end of November
2. Lock Operational Contract - Team is working to develop the contract, including advanced coordination with contracting officials, 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
3. Increased costs and availability issues associated with Construction Labor and Supply Markets required to complete remaining scope could impact estimated total project cost estimate and completion schedule.



THANK YOU

Bob Winters, PMP

Project Manager – Programs and Project Delivery Branch

Email: Robert.I.winters@usace.army.mil

Office: 615-736-2346

