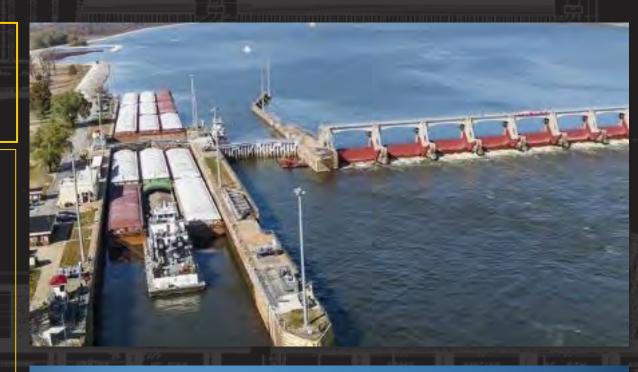
#### **NESP LOCK & DAM NO. 25**

Jose R. Lopez, PE, PMP L&D 25 Project Manager St. Louis District USACE

Bryan J. Dirks, PE L&D 25 Technical Lead Inland Navigation Design Center USACE







MANTENANCE BUILDING S



## MISSISSIPPI RIVER LOCK 25–BLUF STATUS / DASHBOARD



#### **PROJECT STATUS SUMMARY**

Phase 2 – 1,200 ft Lock; Design SPI: 1.27

Phase 2a – Bulkhead Fabrication & Supply Awarded: 23 Feb 2024

Phase 2c – Construction-Operation Facilities Scheduled Award: 30 Sept 2024

Next Major Contract Award(s): Phase 2b – D/S Guide Cell – FY25 Phase 2 – New 1,200 ft Lock – FY27



Design is on budget Planned Value: \$34.5M Earned Value: \$43.9M Actual Value: \$34.6M Cost Performance Index: 1.27

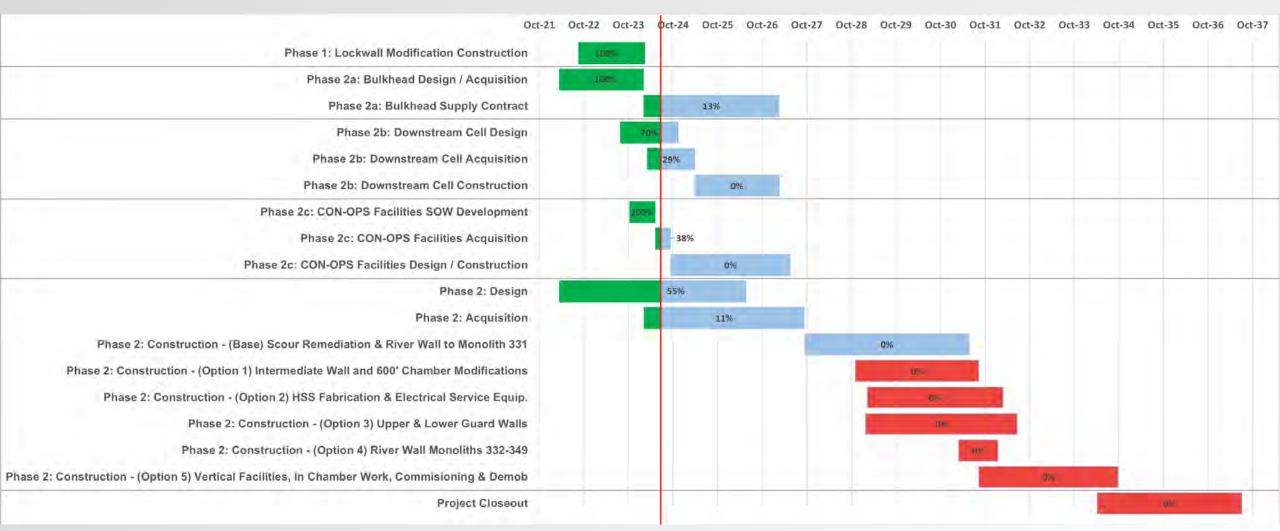
FINANCIAL STATUS SUMMARY

\*through June 2024

#### **EXECUTIVE SUMMARY:**

- Project was re-benchmarked in July due to change in acquisition strategy.
- The delivery method will now be Design, Bid, Build and the remaining BIL appropriations will be used to fund the base in a base + options contract structure, subject to Acquisition Plan approval.
- PDT has conducted five 1-on-1s with potential contractors.
- In the absence of full project funding or efficient funding, there is a high likelihood for increases in schedule duration and total project cost.
- Current project status:
  - Entered the 65% design review phase and conducting 65% CWE update.
  - RE acquisition process (e.g. preliminary title) for Temporary Work Areas is ongoing.
  - Supplemental NEPA Supplemental Environmental Assessment is under review.

# **MISSISSIPPI RIVER LOCK 25–SCHEDULE/FUNDING**



- Out year cost and durations for Phase 2 construction are highly dependent on funding. Various funding scenarios have been developed.
- Phase 2a, 2b, & 2c fully funded through construction.
- All phases fully funded through design.
- Green is completed work, blue is funded but to be completed, red is unfunded work.



# **MISSISSIPPI RIVER LOCK 25–FUNDING SUMMARY**

Allocations:	ARRA (\$M)	GI(\$M)	CG(\$M)	IWTF(\$M)	BIL(\$M)	Total(\$M)		
Prior to FY 22:		\$15.72				\$15.72		
FY 22:					\$732	\$732		
FY 23:						\$0		
FY 24:						\$0		
FY 25:						\$0		
Total to Date:					\$732	\$747.72		
Remaining TPC Balance:								

Total Project Cost (TPC)	\$2,263M	June 2023					
Authorized Cost:	Not specific for	Lock 25					
Escalated Cost:	Navigation and Ecosys	tem Sustainability					
902 Limit:	Program carries these a	t the program level.					
PED Cost:	\$144.6M	June 2023					
EDC Cost:	\$60.0M	June 2023					
S&A Cost:	\$116.9M	June 2023					

Fiscal Year Funding Scenario Breakout: Various scenarios have been developed. All highly dependent on funding streams.

	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	TOTAL
Efficient	\$300M	\$500M	\$500M	\$200M	-	-	-	-	-	-	-	-	\$1,500M
Inefficient	\$168M	\$103M	\$326M	\$224M	\$338M	\$339M	\$320M	\$325M	\$124M			-	\$2,267M

\*All cost shown are estimated Total Project Costs (Fully Funded) and have not undergone an ATR review. Previous ATR review focused on a singular fully funded contract.

\*\* These are not capabilities; strictly speaking. But rather amounts needed to maintain assumed construction schedule.



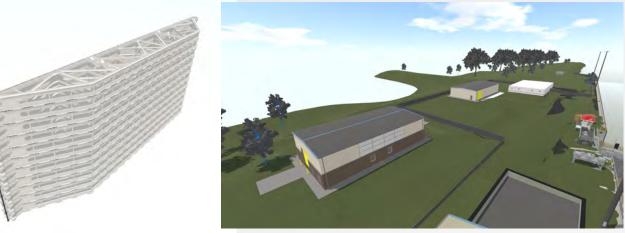
# **MISSISSIPPI RIVER LOCK 25–ISSUES/CHALLENGES**

- Challenge: Project funding up to the certified cost. •
- Mitigation Strategies: Contract structure to account for uncertain funding availability.
- **Challenge**: In-the Wet Construction Methodology Box Form
- **Primary Mitigation Strategy:** Early and often engagement with construction industry.
- Challenge: Minimizing impacts and maximizing predictability to existing traffic.
- **Mitigation Strategies**: Continued engagement with navigation industry and collaboration with construction industry on closures and width restrictions.
- **Challenge:** Market Conditions and Labor/Material Availability
- **Primary Mitigation Strategy:** Economic Price Adjustment Clause.



# **MISSISSIPPI RIVER LOCK 25–LOOK AHEAD**

- **Progress:** Phase 2a Bulkhead Fabrication and Supply
  - Awarded 23 February 2024
  - **Construction completion March 2027**
  - \$17.7M Firm Fixed Price Contract
- **Progress**: Phase 2c CON-OPS Facilities
  - Design/Build through Huntsville Center
  - Scheduled for Award Sept 2024
- **Progress:** Phase 2b Guide Cell
  - Scheduled for Award Q1 FY25
- **Progress**: Phase 2 1,200 ft New Lock
  - Currently in 65% Design Review Phase
  - Scheduled for Design Completion Jun 2026



Phase 2a

Phase 2c



Phase 2



# **BACKUP SLIDES**



# **MISSISSIPPI RIVER LOCK 25-OVERVIEW**

**Authorization**: Title VIII of Water Resources Development Act (WRDA) 2007, P.L. 110-114 and WRDA 2022, P.L. 117-263. Authorized cost in legislation is at the Navigation Ecosystem Sustainability Program (NESP) level, not for the individual projects.

**Purpose/Description:** The construction of a new 1200-foot lock at Lock & Dam 25 will significantly reduce delays and increase safety. Proposed project features include construction of a new 1200-foot deep founded lock located in the auxiliary miter gate bay, construction of an upstream ported guard wall totaling 1200-feet, and a 650-foot downstream approach wall.

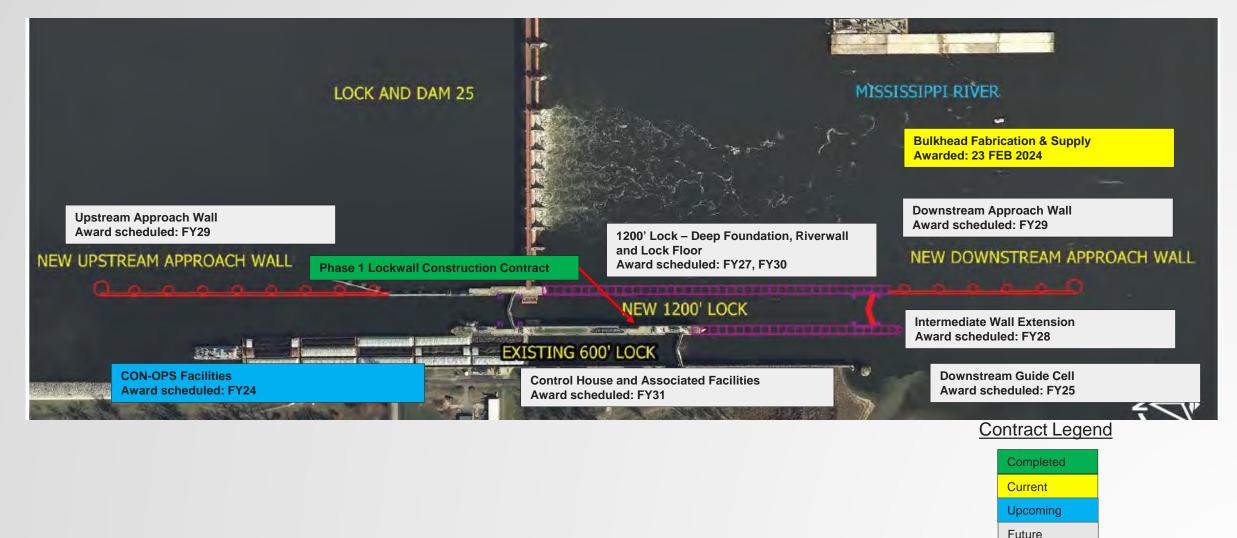
Schedule: Design: Complete FY26; Construction: Complete TBD, dependent on funding stream.

**Cost:** Latest certified Total Project Cost (TPC) is \$2,263,062,000 (Certified in June 2023) with 59% contingency at a 15% level of design. This cost was validated with industry offers for the ECI-IDaC solicitation. Current Working Estimate (CWE) for 35% is \$2,181,487,000. The next CWE update will occur at the 65% milestone in the Fall 2024. A new certified cost will be obtained then as well.

\*estimates shown assume full or efficient funding.



## MISSISSIPPI RIVER LOCK 25 NEW 1200' LOCK-SCOPE



\*Timelines assume full/efficient funding and are subject to change.



## **UNCONSTRAINED/EFFICIENT SCENARIO**

T		Lock 25 New 1200 FT Lock																		
OPTION NO.	NO. DESCRIPTION		DESCRIPTION		DESCRIPTION		DESCRIPTION		DESCRIPTION		DESCRIPTION			Estimated Cost			Fi	scal Year		
	SCOUR REMEDIATION AND FOUNDATION PREPARATION; RIVER WALL TO MONOLITH 331: STORAGE BUILDING	Option Number	Description	Fully Funded (including labor & contingency)	2026	2027 2028	2029	2030 2031	2032	2033 2034										
OFTION 1	INTERMEDIATE WALL AND 600' CHAMBER MODIFICATIONS	Base	Scour Remediation & Foundation Preparation; River Wall to Monolith 331	\$700,000,000	J															
		Option 1	Intermediate Wall & 600 FT Chamber Modifications	\$409,000,000	)															
On House	HYDRAULIC STEEL STRUCTURES, MCC BUILDINGS, NEW ELECTRICAL SERVICE EQUIPMENT	Option 2	Hydraulic Steel Structures, MCC Buildings, New Electrical Service Equipment	\$46,000,000	(															
CIPTION 3	GUARD WALLS		Guard Walls	\$333,000,000																
OPTIONA	RIVER WALL MONOLITHS 332-349	<u> </u>	River Wall Monoliths 332-349	\$218,000,000																
01011	VERTICAL FACILITIES & IN CHAMBER CONSTRUCTION	Option 5	Vertical Facilities & In Chamber Construction	\$475,000,000	J															

\*All cost shown are estimated Total Project Costs (Fully Funded) and have not undergone an ATR review. Previous ATR review focused on a singular fully funded contract.





# **CONSTRAINED ~\$100M/YR SCENARIO**

in a training !		Lock 25 New 1200 FT Lock															
OPTION NO.		Option Number		Estimated Cost	Fiscal Year												
BASE			Description	Fully Funded	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 20	36 203	7 2038	2039 2040
	RIVER WALL MONOLITHS 332-341	a second second		(including labor & contingency		1000						2000		-		1	and a second
OPTION 2	RIVER WALL MONOLITHS 342-349		Scour Remediation & Foundation Preparation; River Wall to Monolith 331 River Wall Monoliths 332-341	\$700,000,00	++												
OPTION 3	INTERMEDIATE WALL MONOLITHS 232-242		River Wall Monoliths 342-349	\$100,000,00	+ +											-	
OPTION 4	INTERMEDIATE WALL MONOLITHS 243-252	Option 3	Intermediate Wall Monoliths 232-242	\$167,000,00	0												
OPTION 5	INTERMEDIATE WALL MONOLITHS 228, 229, 231 AND 600' CHAMBER MODIFICATIONS		Intermediate Wall Monoliths 243-252	\$186,000,00	+ +											_	
OPTION 6	HSS, MACHINERY AND INSTALLATION		Intermediate Wall Monoliths 228, 229, &231, 600 FT Chamber Modifications HSS, Machinery, & Installation	\$141,000,00	+ +												
CPTION 7	TEMPORARY STRUTS		Temporary Struts	\$108,000,00	++											-	
OPTION 8	VERTICAL FACILITIES AND ELECTRICAL	Option 8	Vertical Facilities & Electrical	\$212,000,00	0												
OPTION 9		Option 9	Lock Chamber Construction	\$363,000,00	p												
OPTION 9	LOCK CHAMBER CONSTRUCTION	Option 10	Precast Concrete Beams	\$138,000,00													
OPTION 10	PRECAST CONCRETE BEAMS	Option 11	Upper Guard Wall	\$215,000,00	D												
OPTION 11	UPPER GUARD WALL	-	Lower Guard Wall	\$250,000,00	_											1	
OPTION 12	LOWER GUARD WALL	*AI	l cost shown are estimated Total Project Costs (Fi							ATF	R rev	view.	Pre	vious	ATF	revie?	ew 🛛
focused on a singular fully funded contract.																	

