

NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM

Inland Waterways Users Board Meeting No.
102

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US Army Corps
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MISSISSIPPI RIVER LOCK 25-OVERVIEW

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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.

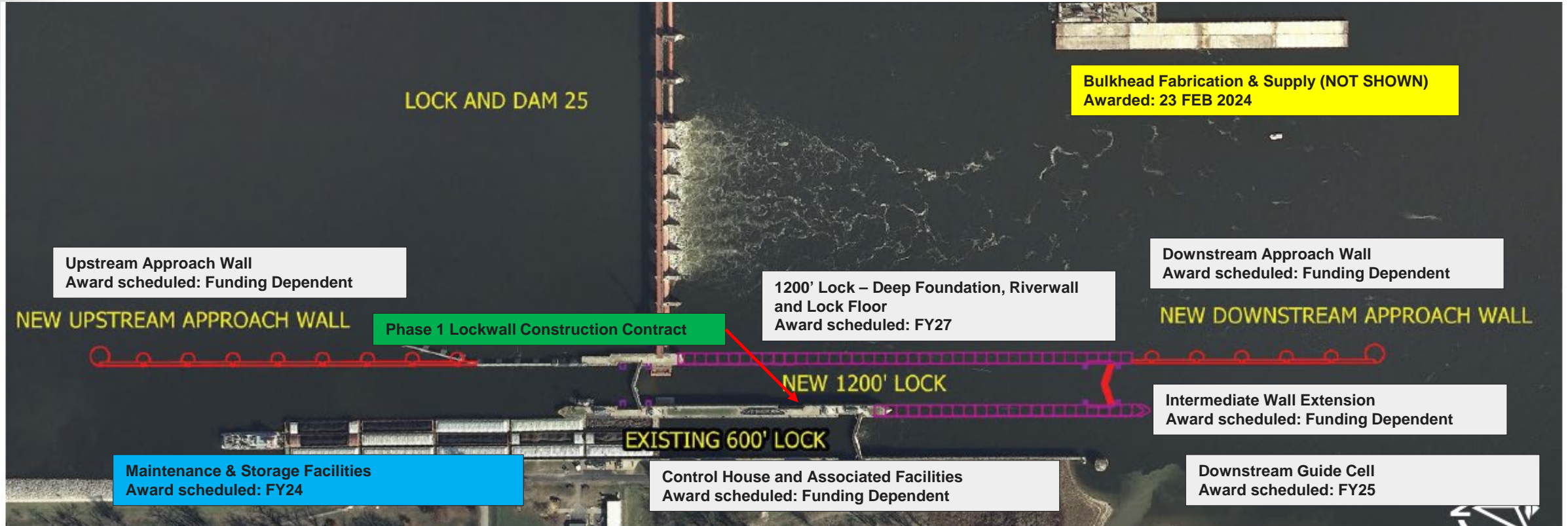
***estimates shown assume full or efficient funding.**



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MISSISSIPPI RIVER LOCK 25 NEW 1200' LOCK-SCOPE

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Contract Legend

Completed
Current
Upcoming
Future

*Timelines assume full/efficient funding.

MISSISSIPPI RIVER LOCK 25–BLUF STATUS / DASHBOARD

PROJECT SAFETY



Phase 1 – Lockwall Modification
**No lost time accidents*

PROJECT STATUS SUMMARY



Phase 1 – Lockwall Modification
Construction Complete: 06 Mar 2024

Phase 2 – 1,200 ft Lock; Design SPI: 1.02

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

Next Major Contract Award(s):

Phase 2b – D/S Guide Cell – FY25

Phase 2c – O&M Facilities – FY24

FINANCIAL STATUS SUMMARY



Design is on budget
Planned: \$32.1M
Earned: \$32.7M
Actual: \$27.3M
Cost Performance Index: 1.20

**through February 2024*

EXECUTIVE SUMMARY:

- ECI-IDaC solicitation was cancelled on 26 FEB 24 due to insufficient funding to exercise the construction option.
- The delivery method will now be Design, Bid, Build and the remaining BIL appropriations will be used to fund the base in a base + option contract structure.
- PDT is also considering other contract structures/types to align with flexible funding streams (e.g., Indefinite Delivery, Indefinite Quantity)
- 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:
 - Completed 35% design (Fall 2022) and entered the 65% design phase.
 - RE acquisition process (e.g. prelim title) for Temporary Work Areas has begun
 - Supplemental NEPA analysis has begun

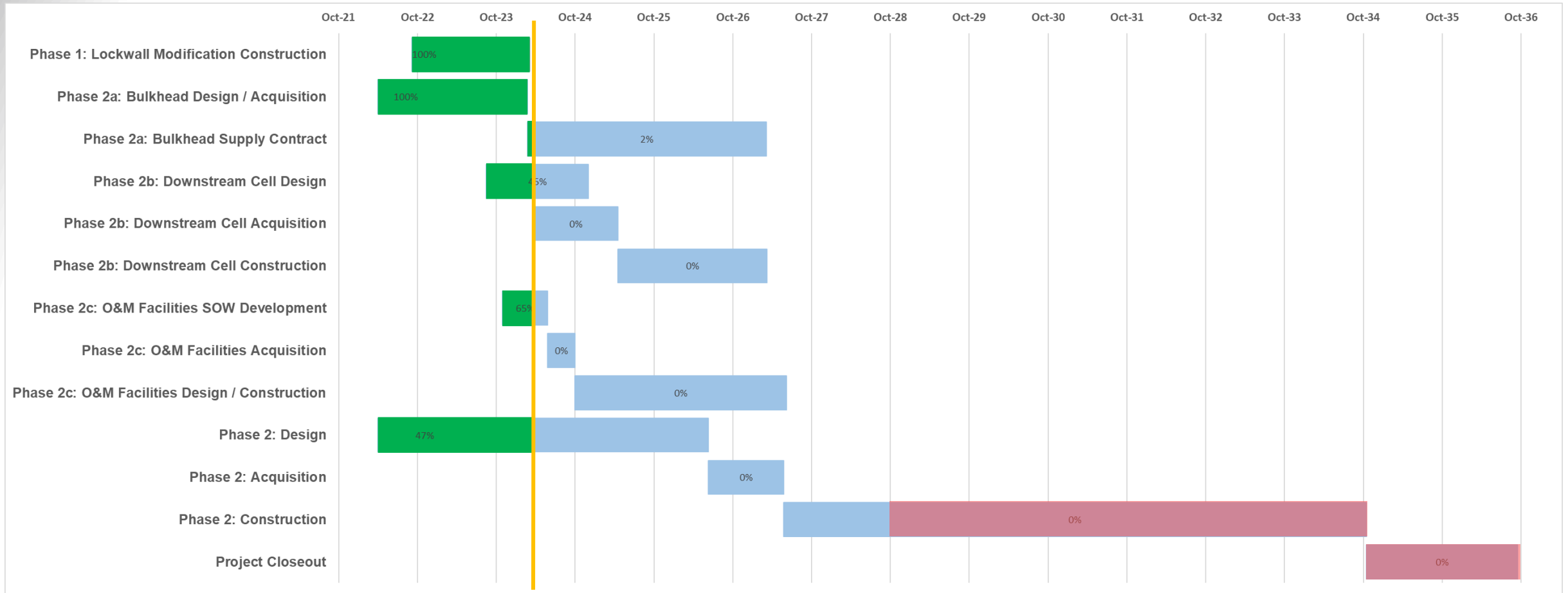


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MISSISSIPPI RIVER LOCK 25–SCHEDULE/FUNDING



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Schedule comments:

- Out years 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.
- Red is unfunded work



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UNCONSTRAINED/EFFICIENT SCENARIO

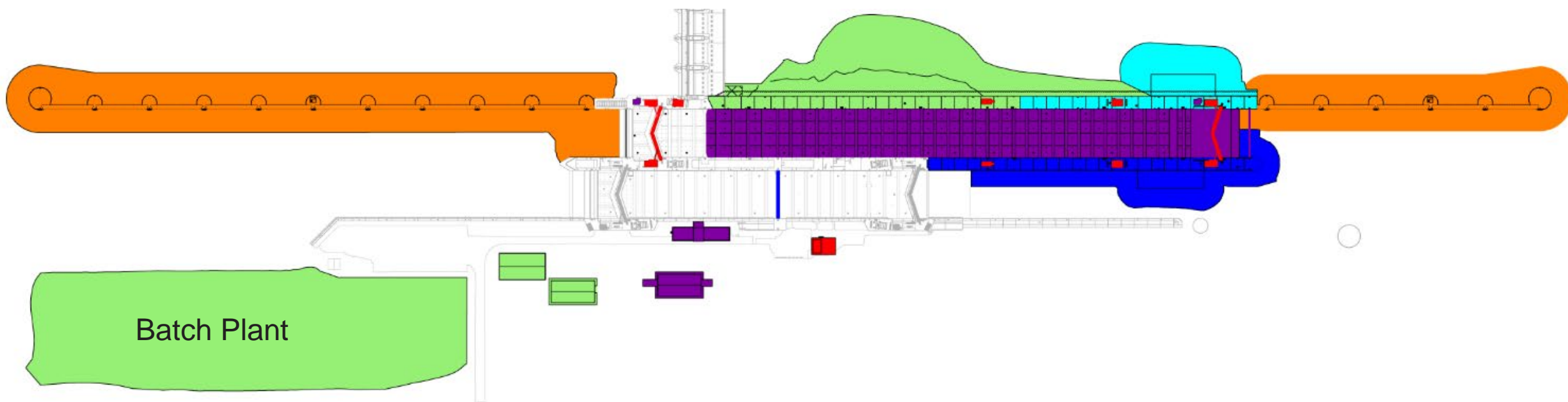
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OPTION NO.	DESCRIPTION
BASE	SCOUR REMEDIATION AND FOUNDATION PREPARATION; RIVER WALL TO MONOLITH 331; STORAGE BUILDING
OPTION 1	INTERMEDIATE WALL AND 600' CHAMBER MODIFICATIONS
OPTION 2	HYDRAULIC STEEL STRUCTURES, MCC BUILDINGS, NEW ELECTRICAL SERVICE EQUIPMENT
OPTION 3	GUARD WALLS
OPTION 4	RIVER WALL MONOLITHS 332-349
OPTION 5	VERTICAL FACILITIES & IN CHAMBER CONSTRUCTION

Lock 25 New 1200 FT Lock										
Option Number	Description	Estimated Cost Fully Funded (including labor & contingency)	Fiscal Year							
			2026	2027	2028	2029	2030	2031	2032	2033
Base	Scour Remediation & Foundation Preparation; River Wall to Monolith 331; Storage Building	\$697,051,000								
Option 1	Intermediate Wall & 600 FT Chamber Modifications	\$408,050,000								
Option 2	Hydraulic Steel Structures, MCC Buildings, New Electrical Service Equipment	\$47,311,000								
Option 3	Guard Walls	\$332,387,000								
Option 4	River Wall Monoliths 332-349	\$218,126,000								
Option 5	Vertical Facilities & In Chamber Construction	\$473,743,000								

**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.*





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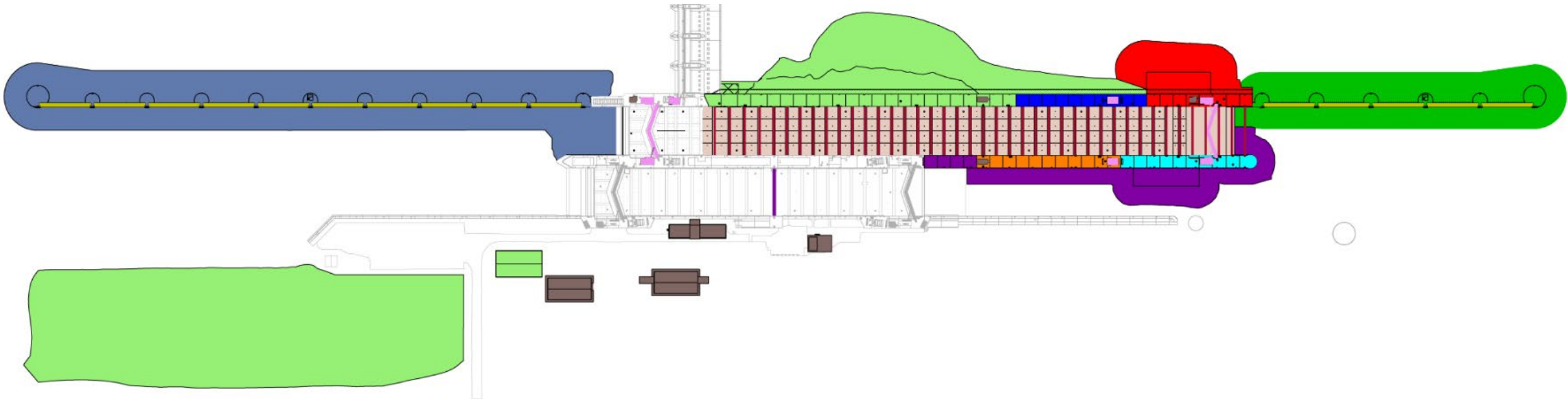
CONSTRAINED ~\$100M/YR SCENARIO



OPTION NO.	DESCRIPTION
BASE	SCOUR REMEDIATION AND FOUNDATION PREPARATION; RIVER WALL TO MONOLITH 331
OPTION 1	RIVER WALL MONOLITHS 332-341
OPTION 2	RIVER WALL MONOLITHS 342-349
OPTION 3	INTERMEDIATE WALL MONOLITHS 232-242
OPTION 4	INTERMEDIATE WALL MONOLITHS 243-252
OPTION 5	INTERMEDIATE WALL MONOLITHS 228, 229, 231 AND 600' CHAMBER MODIFICATIONS
OPTION 6	HSS, MACHINERY AND INSTALLATION
OPTION 7	TEMPORARY STRUTS
OPTION 8	VERTICAL FACILITIES AND ELECTRICAL
OPTION 9	LOCK CHAMBER CONSTRUCTION
OPTION 10	PRECAST CONCRETE BEAMS
OPTION 11	UPPER GUARD WALL
OPTION 12	LOWER GUARD WALL

Lock 25 New 1200 FT Lock																		
Option Number	Description	Estimated Cost Fully Funded <small>(including labor & contingency)</small>	Fiscal Year															
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
Base	Scour Remediation & Foundation Preparation; River Wall to Monolith 331	\$690,900,000																
Option 1	River Wall Monoliths 332-341	\$120,400,000																
Option 2	River Wall Monoliths 342-349	\$99,800,000																
Option 3	Intermediate Wall Monoliths 232-242	\$166,800,000																
Option 4	Intermediate Wall Monoliths 243-252	\$185,800,000																
Option 5	Intermediate Wall Monoliths 228, 229, & 231, 600 FT Chamber Modifications	\$140,700,000																
Option 6	HSS, Machinery, & Installation	\$174,200,000																
Option 7	Temporary Struts	\$109,900,000																
Option 8	Vertical Facilities & Electrical	\$213,600,000																
Option 9	Lock Chamber Construction	\$370,500,000																
Option 10	Precast Concrete Beams	\$141,200,000																
Option 11	Upper Guard Wall	\$219,900,000																
Option 12	Lower Guard Wall	\$255,300,000																

**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.*





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MISSISSIPPI RIVER LOCK 25—FUNDING SUMMARY

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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
Total to Date:					\$732	\$747.72
Remaining TPC Balance:						\$1,531

Total Project Cost (TPC)	\$2,263M	June 2023
Authorized Cost:	Not specific for Lock 25. Navigation and Ecosystem Sustainability Program carries these at the program level.	
Escalated Cost:		
902 Limit:		
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	\$408.1M	\$378.3M	\$218.1M	\$473.7M	-	-	-	-	-	-	-	-	\$1,478.2M
Constrained	\$120.4M	\$99.8M	\$166.8M	\$185.8M	\$140.7M	\$174.2M	\$213.6M	\$109.9M	\$370.5M	\$396.5M	\$219.9M	-	\$2,198.1M

**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.*



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MISSISSIPPI RIVER LOCK 25—ISSUES/CHALLENGES



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- **Challenge:** Project funding up to the certified cost.
- **Mitigation Strategies:** Contract structure to account for uncertain funding availability.
- **Challenge:** Minimizing impacts and maximizing predictability to existing traffic
- **Mitigation Strategies:** Continued engagement with industry on closures and width restrictions.
- **Challenge:** Market Conditions and Labor/Material Availability
- **Primary Mitigation Strategy:** Economic Price Adjustment Clause



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MISSISSIPPI RIVER LOCK 25–PROGRESS

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- **Progress:** Phase 1 - Lockwall Construction Contract
 - Final Inspection: 6 March 2024.
- **Progress:** Phase 2a - Bulkhead Fabrication and Supply
 - Awarded 23 February 2024
 - Construction completion March 2027.
 - \$17.7M Firm Fixed Price Contract
- **Progress:** Phase 2b – Guide Cell
 - Scheduled for Award – Q2 FY25
- **Progress:** Phase 2c – O&M Facilities Design-Build
 - Scheduled for award – Sept 2024



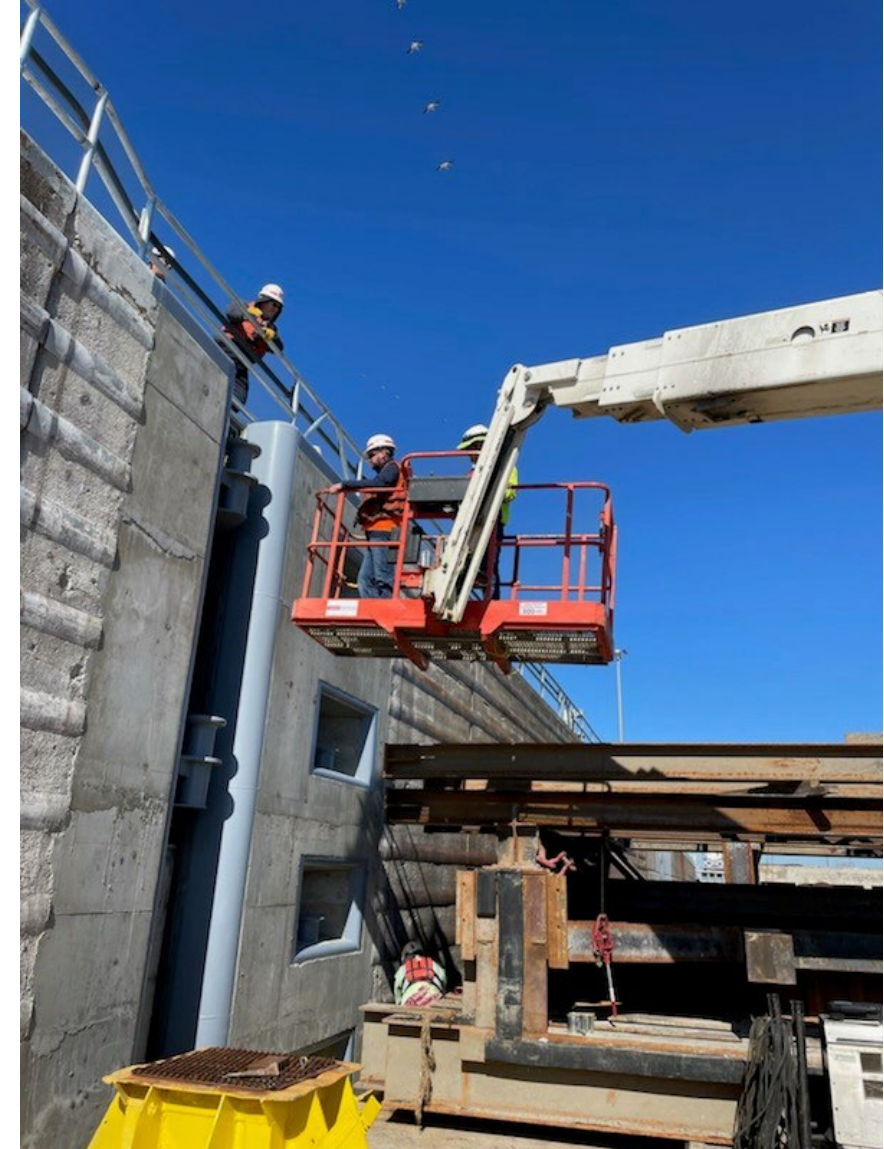
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MISSISSIPPI RIVER LOCK 25—PROGRESS

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Phase 1 – Lockwall Modification – Final Inspection





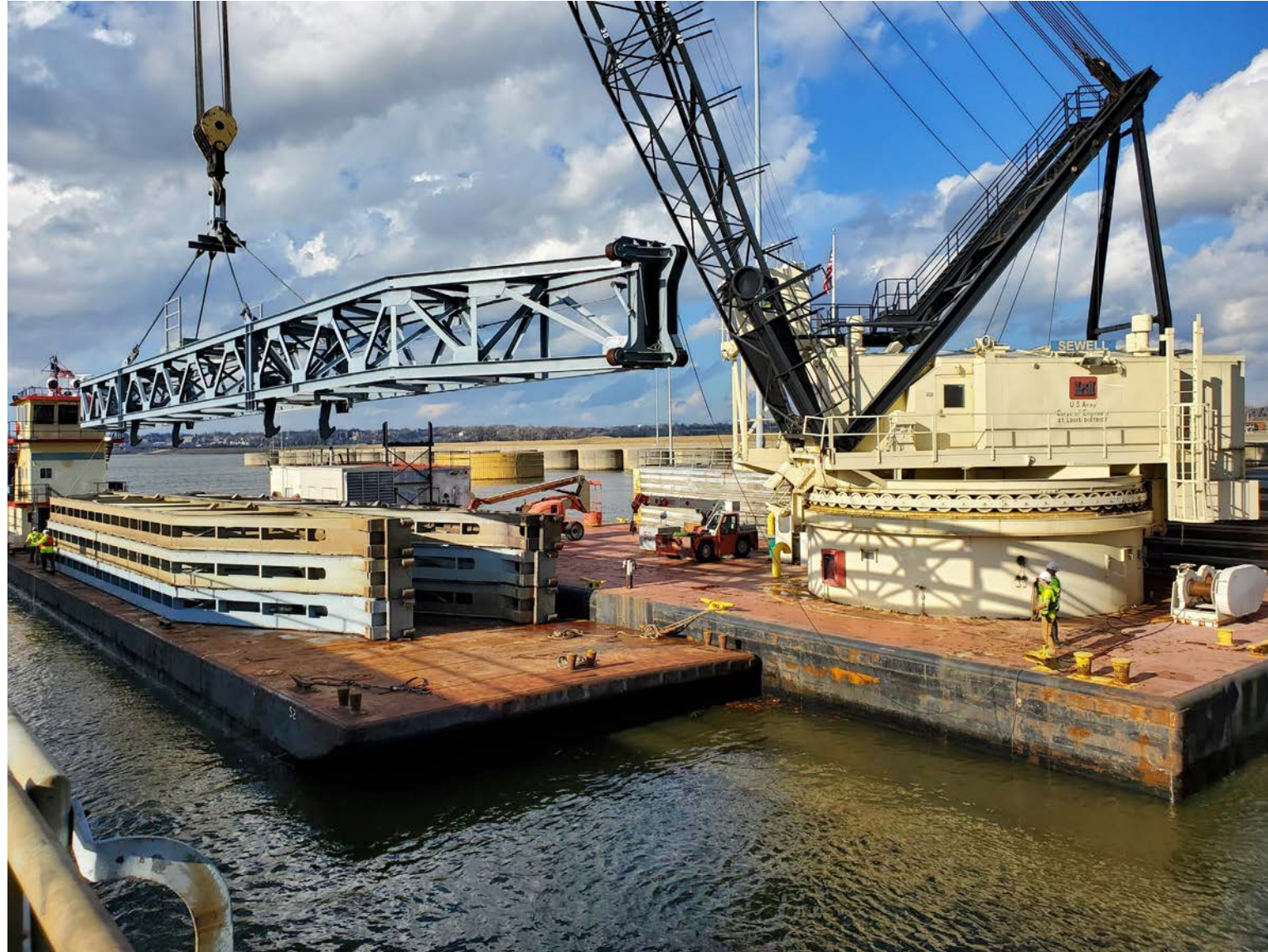
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MISSISSIPPI RIVER LOCK 25-PROGRESS

Phase 2a – Bulkhead Fabrication and Supply – Contract Award





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ILLINOIS WATERWAY LAGRANGE LOCK-OVERVIEW



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Authorization: Title VIII of Water Resources Development Act (WRDA) 2007, P.L. 110-114 and WRDA 2022, P.L. 117-263. A total of \$69.3M was received through Congressionally directed spending in FY22 and FY23, this fully funded design activities for the project.

Purpose/Description: The construction of a new 1200-foot lock at LaGrange will significantly reduce delays and increase safety. Project features include construction of new 1200-foot lock located landward of the existing 600' lock, upstream and downstream approach channels, and associated guidewalls.

Schedule: The initial construction contract for machinery fabrication will be awarded by September 2024.

Cost: The comprehensive cost estimate development began in March 2024. Certified cost will be provided upon completion.



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ILLINOIS WATERWAY LAGRANGE LOCK-SCOPE

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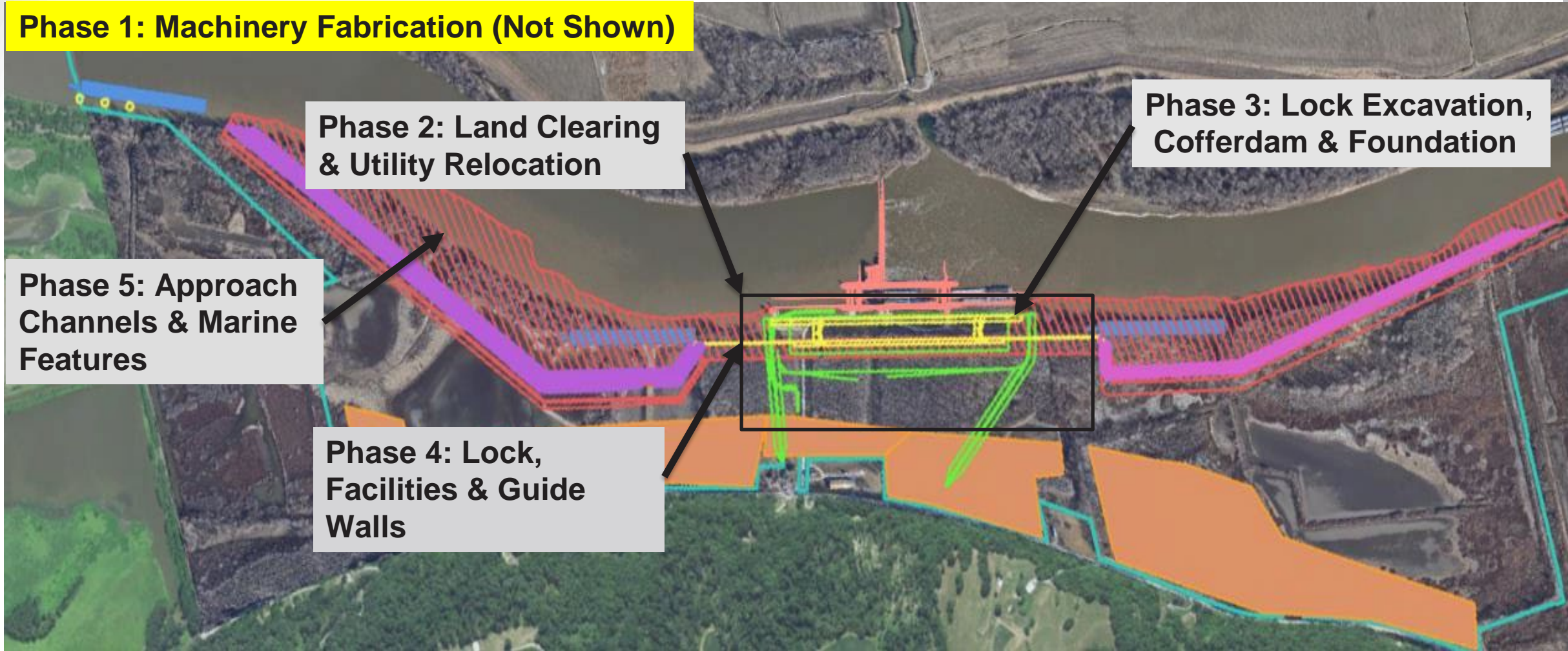
Phase 1: Machinery Fabrication (Not Shown)

**Phase 2: Land Clearing
& Utility Relocation**

**Phase 3: Lock Excavation,
Cofferdam & Foundation**

**Phase 5: Approach
Channels & Marine
Features**

**Phase 4: Lock,
Facilities & Guide
Walls**



Completed

Current

Future

Contract Legend



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ILLINOIS WATERWAY LAGRANGE LOCK-BLUF STATUS / DASHBOARD



PROJECT SAFETY

USACE Safety stats TBD

PROJECT STATUS SUMMARY

Schedule:

Schedule in development

Next Major Contract Award(s):

- September 2024 – Machinery Fabrication

FINANCIAL STATUS SUMMARY

Financial Status Summary TBD

EXECUTIVE SUMMARY:

- Configuration of new lock has been successfully tested at the USACE Engineer Research Development Center physical model. Ship Simulation and Industry visit occurred in FEB 2024. Coordination continuing with the Illinois River Carriers Association.
- Design status:
 - Advancing towards 35% completion for the new 1200' Lock
 - Final design scheduled to be complete by SEP 2025
- Machinery fabrication contract will be awarded by SEP 2024. This includes miter gates, miter gate operating machinery, culvert (tainter) valves, culvert valve bulkheads, and culvert valve operating machinery.



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ILLINOIS WATERWAY LAGRANGE LOCK–FUNDING SUMMARY

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Allocations:	ARRA (\$M)	GI(\$M)	CG(\$M)	IWTF(\$M)	BIL(\$M)	Total(\$M)
Prior to FY 22:		\$1.7				\$1.7
FY 22:			\$13	\$7		\$20
FY 23:			\$32.045	\$17.25		\$49.3
FY 24:			\$26	\$14		\$40
Total to Date:						\$111
Remaining TPC Balance:						TBD

Total Project Cost (TPC)	TBD	TBD
Authorized Cost:	Not specific for LaGrange. Navigation and Ecosystem Sustainability Program carries these at the program level.	
Escalated Cost:		
902 Limit:		
PED Cost:	TBD	TBD
EDC Cost:	TBD	TBD
S&A Cost:	TBD	TBD

Fiscal Year Funding Scenario Breakout: Full scenario will be developed upon completion of the cost certification (expected in calendar year 2024)

FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
\$100M*	TBD								

* NESP Navigation 2025 Capability is \$162M: \$100M for LaGrange and \$62M for Additional Features



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MISSISSIPPI RIVER MOORING FACILITIES–BLUF STATUS / DASHBOARD



PROJECT SAFETY

USACE Safety stats TBD

PROJECT STATUS SUMMARY

Schedule:

Schedule in development

Next Major Contract Award(s):

- September 2024 – mooring facility contract awards

FINANCIAL STATUS SUMMARY

Financial Status Summary TBD

EXECUTIVE SUMMARY:

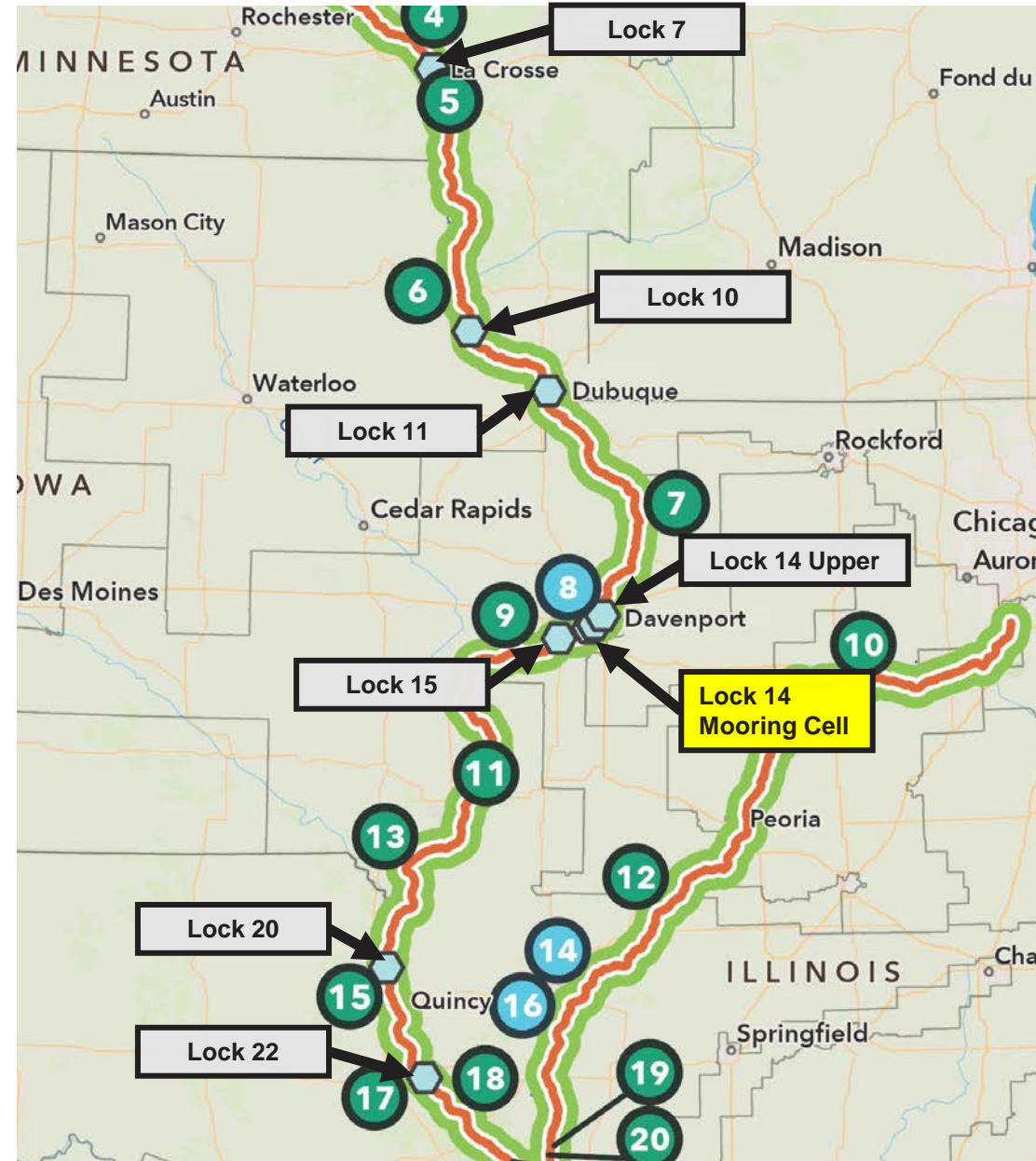
- Mooring facilities are small scale navigation efficiency improvements authorized within NESP.
- Coordination occurred with navigation industry in 2021 prior to advancing design efforts. Mooring facilities at Locks 7,10, 11, 14, 15, 20, 22 were determined to be the priorities.
- The design of mooring facilities was funded with FY22 Congressionally Directed Spending.
- Design status:
 - Scheduled for completion in JUN 2024.
- 3-4 construction contracts will be awarded in FY24 utilizing FY24 Congressionally Directed Spending.
- Construction is expected to take one full construction season for each facility.



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MOORING FACILITY LOCATIONS

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Contract Legend

Completed

Current

Future



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NESP ADDITIONAL FEATURES–BLUF STATUS / DASHBOARD



PROJECT SAFETY

USACE Safety stats TBD

PROJECT STATUS SUMMARY

Next Major Contract Award(s):

- TBD

FINANCIAL STATUS SUMMARY

Financial Status Summary TBD

EXECUTIVE SUMMARY:

- Program authorization includes systemic mitigation and switchboats in addition to new locks and mooring cells.
- The program is ready to advance systemic mitigation, switchboats, and site investigation work at additional lock sites, a total of \$62M* in FY25.

* NESP Navigation 2025 Capability is \$162M: \$100M for LaGrange and \$62M for Additional Features



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THANK YOU

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Lock 25



LaGrange