

NESP BREAKOUT SESSION AGC MEETING



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NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

2

NAVIGATION ACTIVITIES

- New 1200' locks at Locks 20-25 on the Mississippi River and Peoria and LaGrange Locks on the Illinois Waterway. After Lock 25, the next two priorities are LaGrange Lock and Lock 24.
- Mooring cells at 7 locations on both the Mississippi River and Illinois Waterway.
- Switchboats at Locks 20-25 during construction of those locks to aid in navigation.
- Systemic and site-specific mitigation to offset the 1200' lock ecosystem effects.

ECOSYSTEM ACTIVITIES

- Fish passage structures at Locks 4, 8, 22, and 26 along with advancement of design for fish passage at Lock 19 all on the Mississippi River.
- Dam point control (for water level management) at Locks 16 and 25 on the Mississippi River.
- Ecosystem Restoration measures including:
 - Island building, floodplain restoration, backwater restoration, side channel restoration, wing dam and dike modification, and island and shoreline protection.



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CURRENT ACTIVITIES

Navigation

- Lock 25 new 1200' Lock continued design – project is in the 65% design stage.
- LaGrange new 1200' Lock design and initial construction contract (machinery fabrication).
- Mooring facility construction (8 locations) at Locks 7, 10, 11, 14 (2), 16, 21, 22.
- Pool 4 and Moore's Towhead construction.
- Lock 14 mooring cell construction completion.

Ecosystem

- Lock and Dam 22 Fish Passage design finalization, continued pre-construction fish monitoring activities, and construction contract award.
- Continued project planning and design on all projects initiated in fiscal years 2022 and 2023.
- Programmatic activities – reach planning, adaptive management, forest management, water level management, strategic planning.

FUNDING RECEIVED

Funding Type	Total Received
Bi-Partisan Infrastructure Law of 2022	\$829.1M Total - \$732M for Lock 25 New 1200' Lock - \$97.1M for Lock and Dam 22 Fish Passage
FY22 Congressionally Directed Spending	\$45.1M Total - \$27.1M for Navigation Projects - \$18M for Ecosystem Projects
FY22 USACE Work Plan	\$12.179M for Systemic Mitigation Efforts
FY23 Congressionally Directed Spending	\$49.3M for LaGrange New 1200' Lock Design
FY23 USACE Work Plan	\$18.379M for Ecosystem Projects



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NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

ST. PAUL DISTRICT- ROCK ISLAND DISTRICT - ST. LOUIS DISTRICT

NAVIGATION AND ECOSYSTEM PROJECTS

The Navigation and Ecosystem Sustainability Program (NESP) is a long-term, dual-purpose program that integrates navigation improvements and ecosystem restoration together to provide Upper Mississippi River System once in a generation-type positive impacts.

The primary goals of the program are to increase the capacity and improve the reliability of the inland navigation system while restoring, protecting, and enhancing the environment.

This map only shows projects actively being implemented. NESP includes an additional 5 - 1,200-foot locks, systemic mitigation, and hundreds of ecosystem restoration projects.

ONGOING ACTIVITIES

CONSTRUCTION COMPLETE		CONSTRUCTION/AE DESIGN SERVICE CONTRACT AWARDS	
1 Pool 2 Wing Dam Notching		9 Andalusia Island Complex Planning	
ONGOING CONSTRUCTION			
2 Pool 4 Island 4 System Mitigation		10 Starved Rock Breakwater	
8 Lock 14 Mooring Cell		14 LaGrange New 1200-Foot Lock Design	
16 Moore's Towhead System Mitigation		19 Alton Pools Islands - Island Protection	
24 Lock 25 New 1200-Foot Lock		20 Twin Island Protection and Enhancement	
ONGOING DESIGN			
17 Lock and Dam 22 Fish Passage			
Mooring Facilities			
ONGOING PROJECT PLANNING			
YEAR 1		YEAR 2	
4 Johnson Island		3 Wacouta Bay	
6 Sny Magill, Effigy Mounds National Monument		7 Sabula Lakes	
13 Lee County Islands and Backwaters		18 Pool 24 Island Restoration - Denmark and Drift Islands Complex	
12 Liverpool Flowing Side Channel		26 Middle Mississippi River Stone Dike Alterations Phase 1	
21 Clarksville/Carroll Island Side Channel		Water Level Management - Reduce Water Level Fluctuations	
22 Hausgen Island Side Channel			
25 MMR - NWR - Horse Island			
SYSTEMIC FOREST MANAGEMENT			
5 Pool 8 Goose Island Invasive Control		11 Pools 17 and 18 Forest Inventory	
15 Pool 21 Long Island Forest Inventory		23 Pool 26 Cuivre Island Tree Planting	

NESP PARTNERS





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UPCOMING SOLICITATIONS

Project	Location	USACE District	Anticipated Advertisement	Estimated Range
Lock 25 Maintenance Building Design-Build	Winfield, MO	St. Louis District	3rd Quarter FY24	\$5-10M
Lock 25 A/E Task Orders for Design Support, VE, and CADD Tech Support	Winfield, MO	St. Louis District	4th Quarter FY24	\$5-10M
LaGrange New 1200' Lock – Machinery Fabrication Contract	LaGrange, IL	Rock Island District	4th Quarter FY24	Greater than \$25
Mooring Facilities Construction Contract	8 locations	Rock Island and St. Paul District	4th Quarter FY24	Greater than \$25M
Lock and Dam 22 Fish Passage Construction Contract	Saverton, MO	Rock Island District	3rd Quarter FY24	Greater than \$25M
Forest Management – Timber Stand Improvement Contract Actions	Various	St. Louis District Rock Island District St. Paul District	4th Quarter FY24	\$1-5M
Pool 19 Ecosystem Pool Planning	Pool 19 Upper Mississippi River	Rock Island District	4th Quarter FY24	\$1-5M
Project Data Collection	Various	St. Louis District Rock Island District St. Paul District	4th Quarter FY24	\$1-5M
Project Implementation Report Task Orders	Various	Rock Island District	4th Quarter FY24	\$1-5M
Tribal Engagement Strategy Development	Various	Tribal Nations Technical Center of Expertise - Albuquerque District	4th Quarter FY24	Less than \$1M
Survey Systemic Control - Task Order	Lock and Dam 17 & 19	Photogrammetric Mapping Center of Expertise - St. Louis District	3rd Quarter FY24	Less than \$1M



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LOCK 25 NEW 1200' LOCK

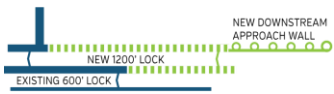
PROJECT SUMMARY

Lock and Dam 25 is located in Calhoun County, Illinois, and Lincoln County, Missouri, at approximately river mile 241.4 on the Upper Mississippi River above the mouth of the Ohio River near Winfield, Missouri. The project will be delivered via Integrated Design and Construction (IDaC) a delivery method that integrates construction contractor input through the design development.

The primary purpose of the Lock and Dam 25 New 1,200-Foot Lock Project is to improve efficiency, reliability, and safety for navigation traffic transiting the facility along with operational redundancy at Lock 25.

The project will reduce the per lockage times from 2.5 hours or more to approximately 45 minutes. The addition of a 1,200-foot lock will accommodate the largest tow configurations on the Upper Mississippi River. This will improve mariner safety, with professional mariners no longer having to "split" tows to transit the lock chamber.

OBJECTIVES



1 Safely deliver a quality 1,200-foot lock efficiently and cost effectively

2 The goal is to construct the project while minimizing impacts and maintaining predictability to existing navigation traffic

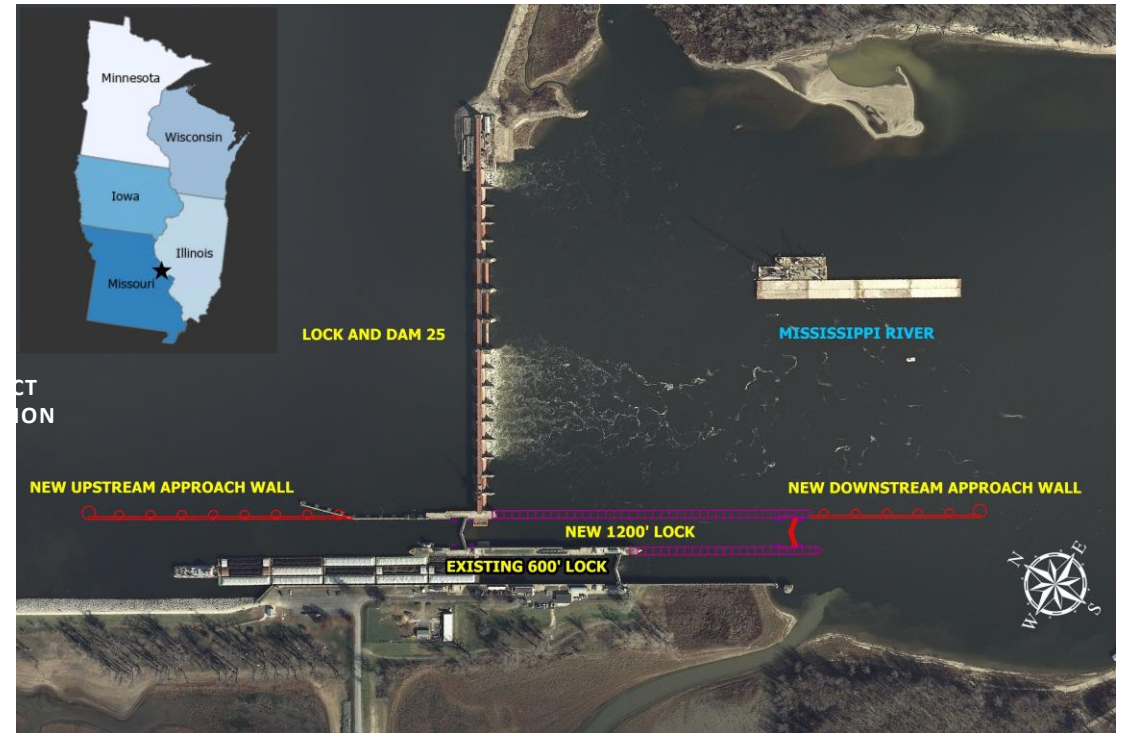
3 Project design is expected to be 100% complete in June 2026

DESIGN OVERVIEW

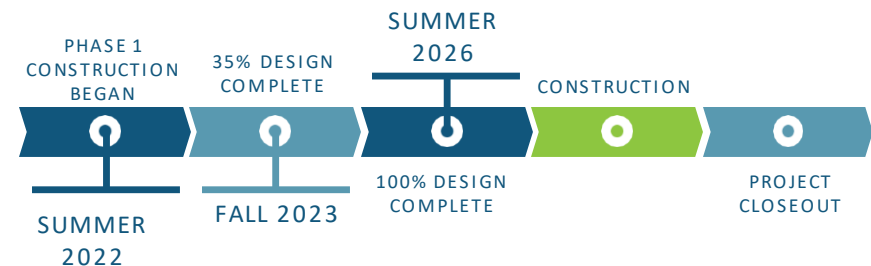
- Re-initiated – Oct 2022
- 15% level of maturity
- 35% Review phase began – Jun 2023
- 35% Design complete – Nov 2023
- 100% Design complete – Jun 2026

CONSTRUCTION OVERVIEW

- Lockwall modifications
 - Est. Construction complete May 2024
- Bulkhead Supply
 - Est. Award – Mar 2024
- Lock Construction
 - Solicitation date TBD.



PROJECT SCHEDULE





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LAGRANGE NEW 1200' LOCK

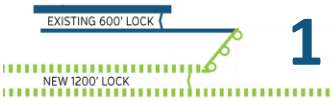
PROJECT SUMMARY

LaGrange Lock and Dam is 80.2 miles above the confluence of the Illinois River with the Mississippi River at Grafton, Illinois, 7.8 miles below Beardstown, Illinois.

The primary purpose of the LaGrange New 1,200-Foot Lock Project is to improve efficiency, reliability, and safety for navigation traffic transiting the facility along with additional operational redundancy at LaGrange.

The project will reduce the per lockage times from 2.5 hours or more to approximately 45 minutes. The addition of a 1,200-foot lock will accommodate the largest tow configurations on the Upper Mississippi River. This will improve mariner safety, with professional mariners no longer having to “split” tows to transit the lock chamber.

OBJECTIVES



1

New 1,200-foot navigation lock landward of the existing 600-foot lock

2

Construction will occur with minimal interference to existing navigation traffic



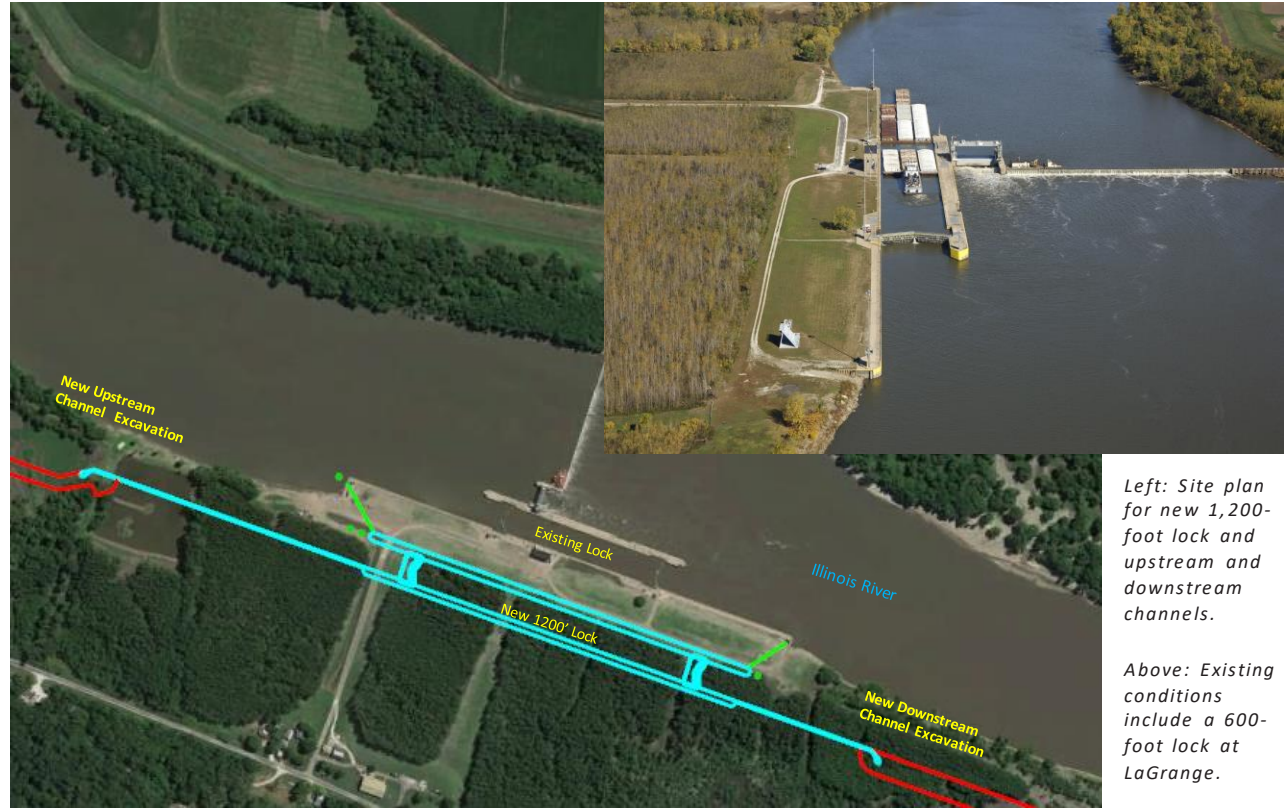
3

Existing 600-foot lock will remain in operation



FY24 ACTIVITIES

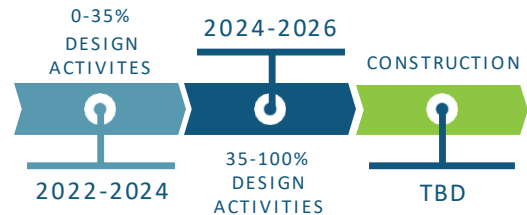
- Project design (35% design phase)
- Construction contract award for machinery fabrication (pending appropriations)
- Physical model coordination with navigation industry

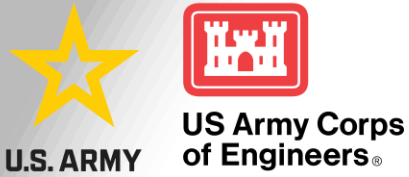


Left: Site plan for new 1,200-foot lock and upstream and downstream channels.

Above: Existing conditions include a 600-foot lock at LaGrange.

PROJECT SCHEDULE





LOCK AND DAM 22 FISH PASSAGE

PROJECT SUMMARY

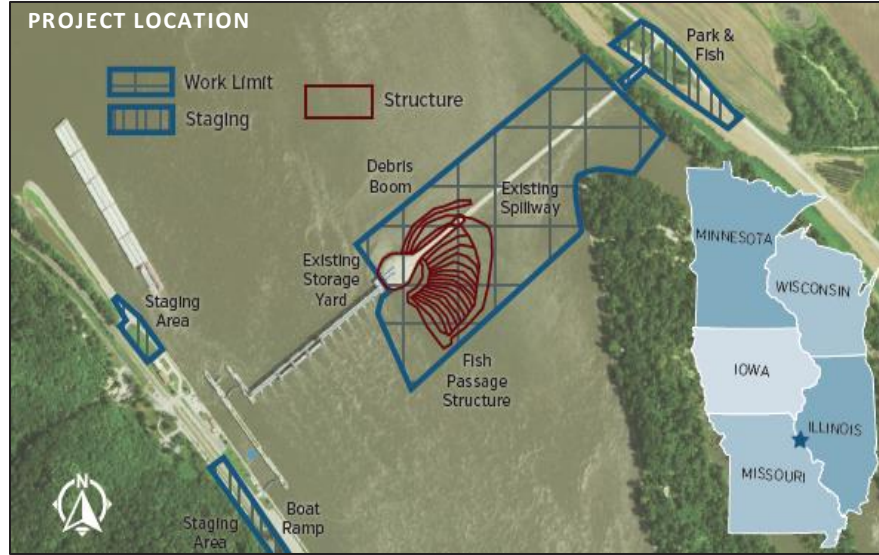
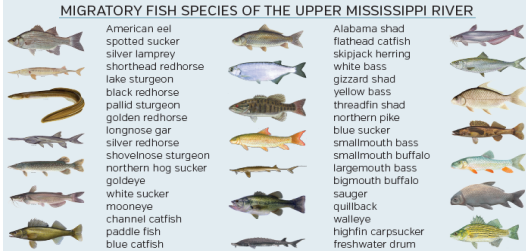
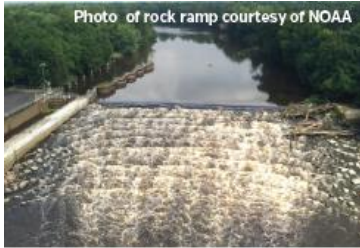
Lock and Dam 22 is located near Saverton, Missouri, on the Mississippi River, roughly 10 miles south of Hannibal, Missouri, at river mile 301.2. The fish passage structure will be constructed on the spillway portion of the dam, on the side furthest from the Illinois shoreline, and would extend downstream into the tailwater area.

The primary purpose of the Lock and Dam 22 Fish Passage Project is to increase fish access to upstream mainstream river and tributary habitats. Increased access to upriver habitat should result in an increase in the size and distribution of native migratory fish populations.

The secondary purpose is to monitor and adaptively manage this structure to optimize its effectiveness and inform design of subsequent fish passage projects.

RISK-INFORMED FISH PASSAGE IMPROVEMENT STRATEGY

The Recommended Plan developed during the feasibility phase of this project imitates the natural river to maximize the effectiveness of the native fish passage while minimizing impacts to navigation.



DESIGN

- 100% design expected to be complete in March 2024.

CONSTRUCTION

- Planned solicitation and award in fiscal year 2024.

ADAPTIVE MANAGEMENT

- Pre-Construction Monitoring
- Construction Monitoring
- Post-Construction Monitoring
- Adaptive Management

BI-PARTISAN INFRASTRUCTURE LAW (BIL) FUNDS: \$97,100,000 for design and construction initiation

OBJECTIVES

- Provide habitat benefits for over 30 fish species
- Restore natural connection between pools
- Increase migration capabilities for native fish species
- Provide spawning habitat for fish

Project Deliverables & Tasks:

- 26Sep22 – AE Design Awarded
- 30Sep22 – Completion of 35% Design
- 07Jun23 – Completion of 65% Design
- Mar 2024 – 100% Design Completion
- Jun 2024 – Construction Solicitation RFP
- Sep 2024 – Construction Award
- Sep 2027 – Construction Complete

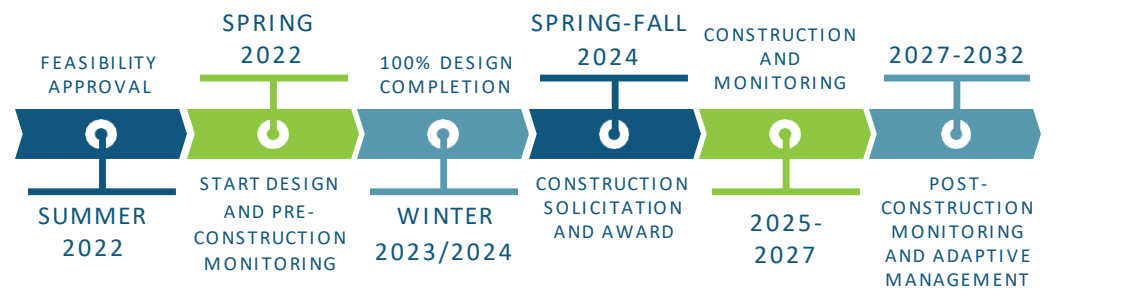
Monitoring Activities & Adaptive Management

- FY22-24 – Pre-Construction Monitoring
- FY25-27 – Construction Monitoring
- FY28-32 – Post-Construction Monitoring
- FY28-32 – Adaptive Management

Lock and Dam 22 Fish Passage Monitoring

- Inform Project Design and Construction
- Monitor Fish Movement through Lock 22 and Fis hway
- Monitor Systemic Ecological Response by Migratory Fishes
- Monitor Physical Performance of the Fish Passage Improvement Features
- Monitor Effects of the Project on Structural Integrity, Navigation Operations, Water Quality

PROJECT SCHEDULE





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UPCOMING INDUSTRY ENGAGEMENTS

- 27 February 2024 - NESP Lock and Dam 22 Fish Passage Virtual Industry Day
- 29 February 2024 - St. Louis District Small Business Industry Day
- 27 March 2024 - New Orleans District Small Business Industry Day
- 2-3 April 2024 - SAME Rock Island Post Small Business Industry Day
- 17-18 April 2024 - SAME SMPS/St. Louis Industry Day
- 25 April 2024 - Vicksburg District Small Business Industry Day
- 29-31 May 2024 - Omaha Industry Day
- 12-13 June 2024 - GKC SAME Post Industry Day