

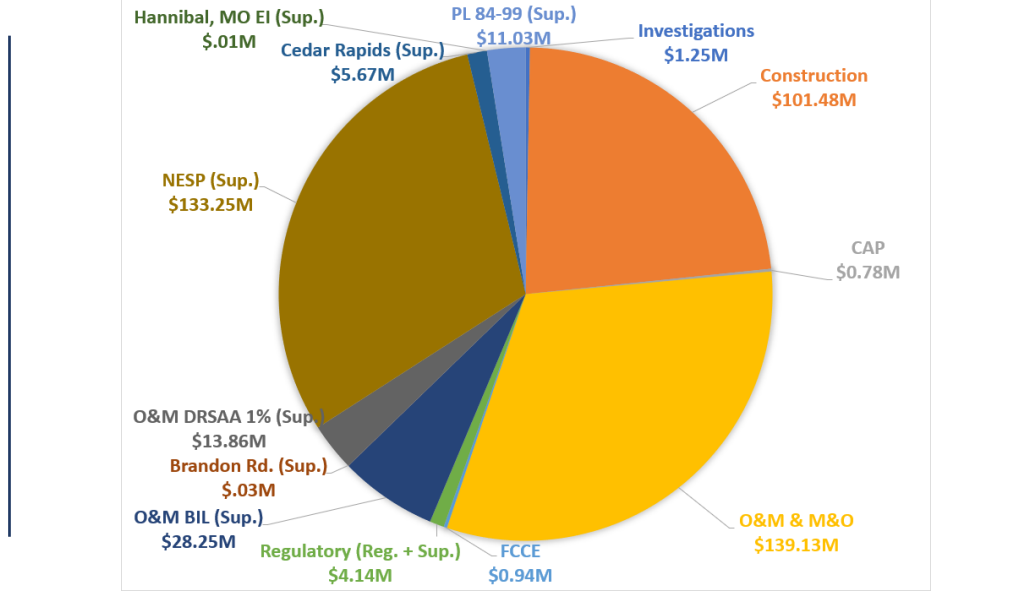


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# USACE Rock Island District FY 2024 In Review



## \$439 M Largest program executed in Rock Island District history



## Key Contracts

- NESP LaGrange New 1200' Lock – Machinery and Fabrications
- Lock & Dam 14 Bascule Bridge Design Build
- Lock and Dam 16, 18, 20 Kevel Rail Replacement
- UMRR Steamboat Island Stage 2 HREP
- Lock and Dam 21 Concrete Repairs
- NESP Dam 22 Fish Passage
- Southwest Coastal First Priority Group Design Build
- NESP Mooring Cells Lock and Dams 14, 15, 20, 22
- Brandon Road Interbasin Project (BRIP) Acoustic Speaker Fabrication

**77 of 79**  
FY24 Tracked  
Milestones  
Completed  
on Schedule

## 1,024 Employees

**National Awards:**

- 2 Individual Recognitions
- 1 Team Recognition
- 2 Organizational Recognitions

**Support to Other USACE Missions:**

- TS Bolave: 1 employee
- Maui Wildfires: 61 employees

## 98 Staff Activated for District Flood Event

## Levees Inspected: 75

### National Flood Fight Materiel Center

- USACE Districts NFFMC assisted: 9
- Flood Fight Materiel Provided:
  - Typical Sandbags: 875,000
  - Large Sandbags: 3,000
  - Gabion Baskets Barrier: 7,110 Ln. Ft.
  - Pumps: 8
  - Poly Sheeting: 87,500 Ln. Ft.
  - Inflatable Culvert Bladders: 3

- Groundbreakings**
- Steamboat Island HREP - UMRR
  - Southwest Coastal Louisiana 
  - Starved Rock Breakwater – NESP
- Ribbon Cuttings** 
- Thomson Ranger Station
  - Beaver Island – UMRR
  - Starved Rock Breakwater – NESP
  - Cedar Rapids FRM – 12<sup>th</sup> Ave. SE Floodgate
  - Miss. River Project Office Motorshop

## Program Oversight of National Programs

- Navigation and Ecosystem Sustainability Program
- Upper Mississippi Restoration Program
- Brandon Road Interbasin Project
- Southwest Coastal Louisiana Storm Risk Management and Ecosystem Restoration Project

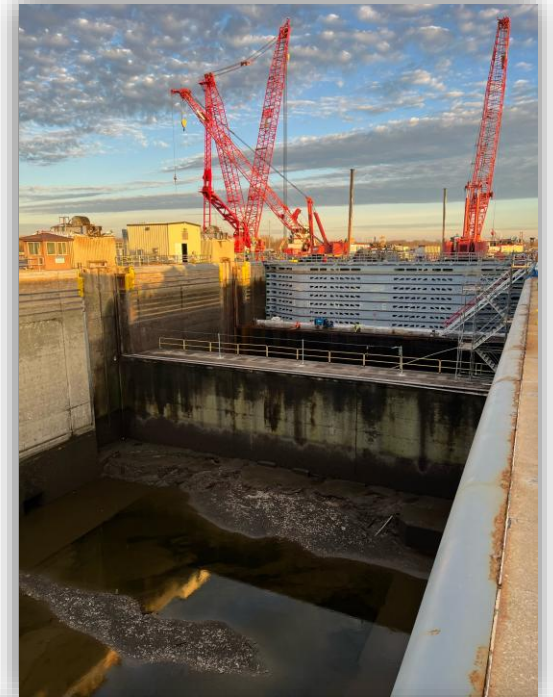


## Regulatory

- 917 General Permits
- 16 Standard Permits
- 366 Jurisdictional Determinations
- 29 Permit Compliance Visits
- 24 Public Outreach Events



- Navigation backlog
  - UMR total NAV backlog \$7.1B
- MAPC Region (Locks 17 thru LaGrange)
  - \$1.73B
- Upcoming Priorities:
  - Programmable Logic Controller (PLC) repairs for LaGrange
  - Emptying & filling valve repairs at several locks
  - Bulkhead lifter replacements (they're so old they're no longer safe)
  - Kevel rail replacements
  - Dam gate replacements at Dam 22
  - Dewatering of Lock 19 next winter (2025-2026)
  - Dredging to keep the 9-foot channel open
  - Small Boat Harbor dredging at Fort Madison & Quincy
  - Composite dam gate fabrication and installation







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# UPPER MISSISSIPPI RIVER RESTORATION PROGRAM (UMRR)







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# UPPER MISSISSIPPI RIVER RESTORATION PROGRAM



## PROGRAM VISION ▶

A healthier and more resilient Upper Mississippi River ecosystem that sustains the river's multiple uses

## PROGRAM HISTORY ▶



**63**  
PROJECTS  
COMPLETED



**121,400**  
ACRES  
IMPROVED



**26**  
PROJECTS  
UNDERWAY



## PRIMARY PROGRAM ELEMENTS ▶

- Habitat Rehabilitation and Enhancement Projects (HREP)
- Long Term Resource Monitoring (LTRM)

## LONG-TERM MONITORING OF 6 STUDY REACHES (BY 5 STATE AGENCIES) ▶

- Water quality (1993 - present)
- Aquatic vegetation (1998 - present)
- Fish (1993 - present)
- Assess ecological status and trends of UMRS
- Understand the structure and function of the ecosystem and its ecological resilience
- Inform the restoration and management of the UMRS

## PROGRAM PARTNERS ▶



US Army Corps of Engineers



## NATURAL RESOURCES

Habitat projects have restored and connected more than 100,000 acres along the Upper Mississippi River, with an additional 65,000 acres of habitat projects planned for the next decade. These projects provide vital habitat for diverse fish and wildlife species, including rare and endangered species.

## FISH & WILDLIFE

50



mussels

154



fish

325



birds



## BIRDS

More than 40% of North American migrating birds use the Mississippi River corridor as their migration route. Restoring forests and wetlands improves bird habitat and provides opportunities for hunting and birdwatching.



## AQUATIC LIFE

Wetlands and backwater lakes provide habitat for many valued fish and aquatic species. Millions of people enjoy fishing and boating on the Upper Mississippi River System each year.



## FORESTS

Forest corridors provide habitat for wildlife species, opportunities for wildlife viewing and hunting, and connect communities and animals to the river. The health of floodplain forests and wet prairies along the river contribute to improved quality of drinking water for millions of people.

- ◆ LTRM monitoring stations
- ▲ in-progress habitat projects
- completed habitat projects

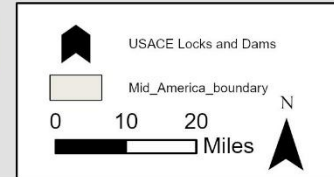
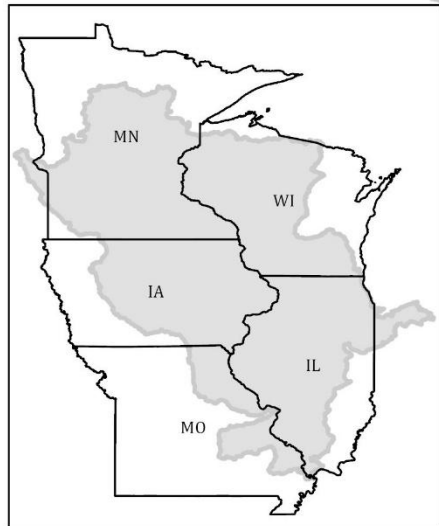
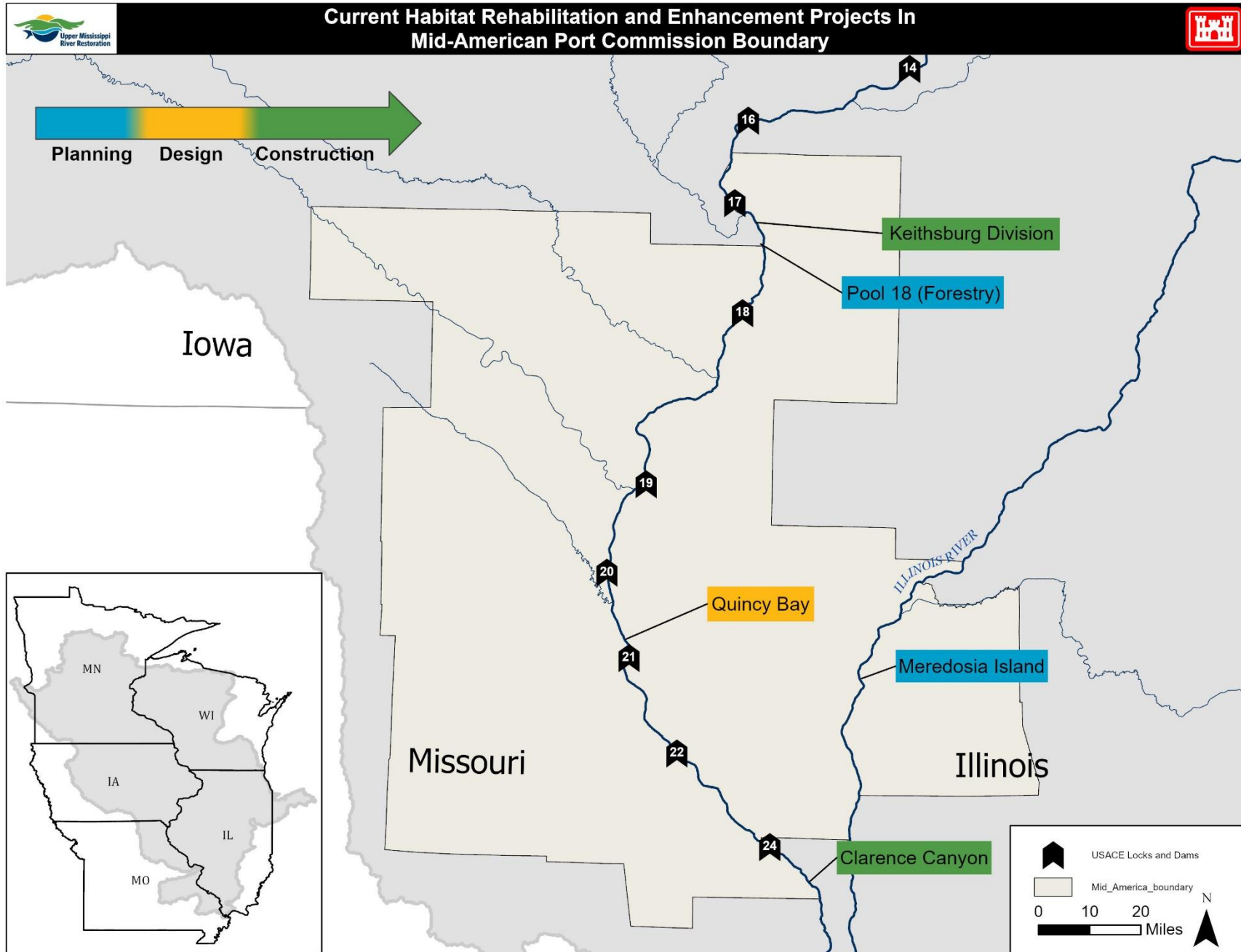


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# 2025



## Current Habitat Rehabilitation and Enhancement Projects In Mid-American Port Commission Boundary





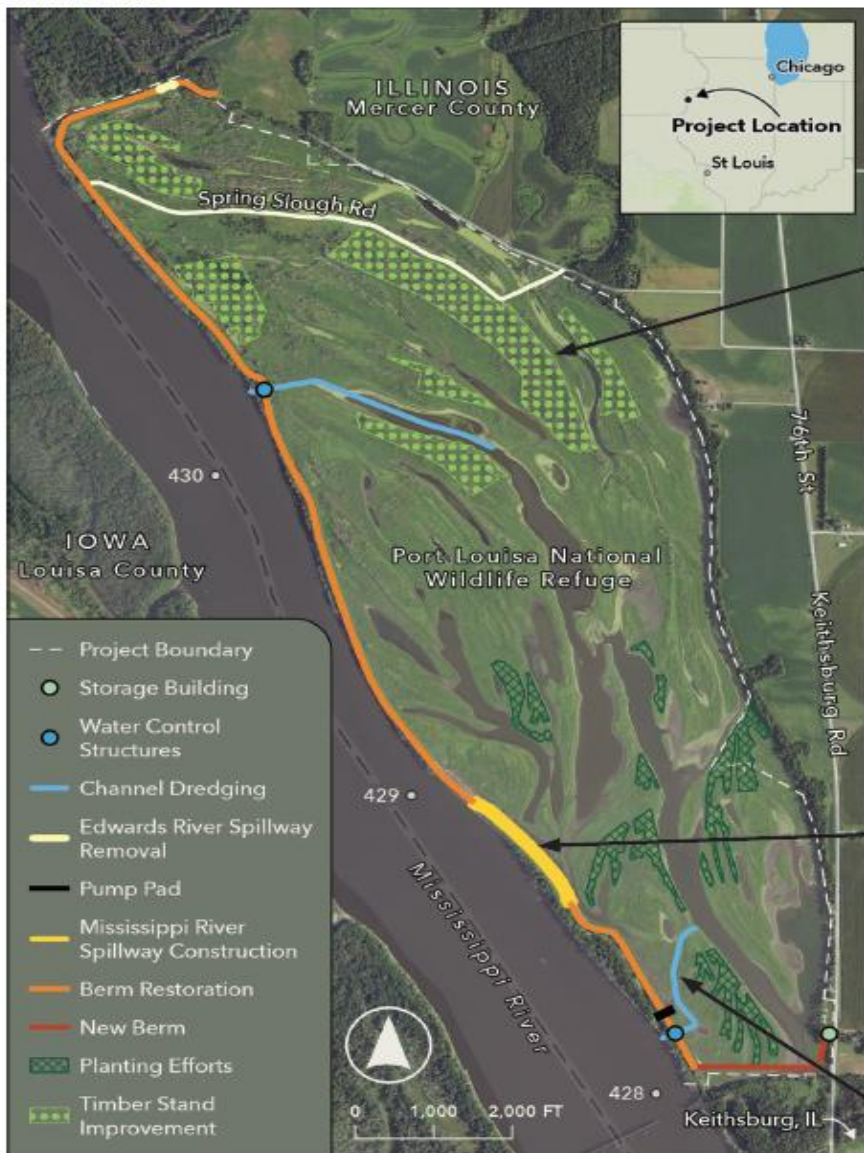
### QUICK FACTS ▶

- Location:
  - ▶ Pool 18, River Miles 431-428
  - ▶ Mercer County, IL
- Feasibility Report Completed: Nov 2018
- Construction Started: Sep 2019
- Scheduled Completion: Fall 2026
- 1,400 acres of backwater complex
- Total project cost: \$29.6 million

### PROJECT OBJECTIVES ▶

- Restore mudflat and shallow water habitat for shorebird use during the migration periods – measured in acres
- Restore submergent and emergent vegetation for waterfowl during migration periods – measured in acres
- Improve existing scrub-shrub community for waterfowl and other wildlife – measured in acres
- Increase areal coverage of hard mast-producing forest stands – measured in acres
- Improve year-round bottomland hardwood habitat for neotropical migrants and other woodland-dwelling species – measured in acres

### SITE PLAN ▶



### PROJECT MEASURES ▶

- Enhance existing berm structures
- Construct spillways, water control structures, and pumping stations
- Excavate channels in backwater areas
- Repair existing road
- Plant floodplain forest trees and shrubs
- Timber Stand Improvement



### PROJECT PARTNERS ▶





# Pool 18 Forestry

## HABITAT REHABILITATION & ENHANCEMENT PROJECT



### QUICK FACTS ▶

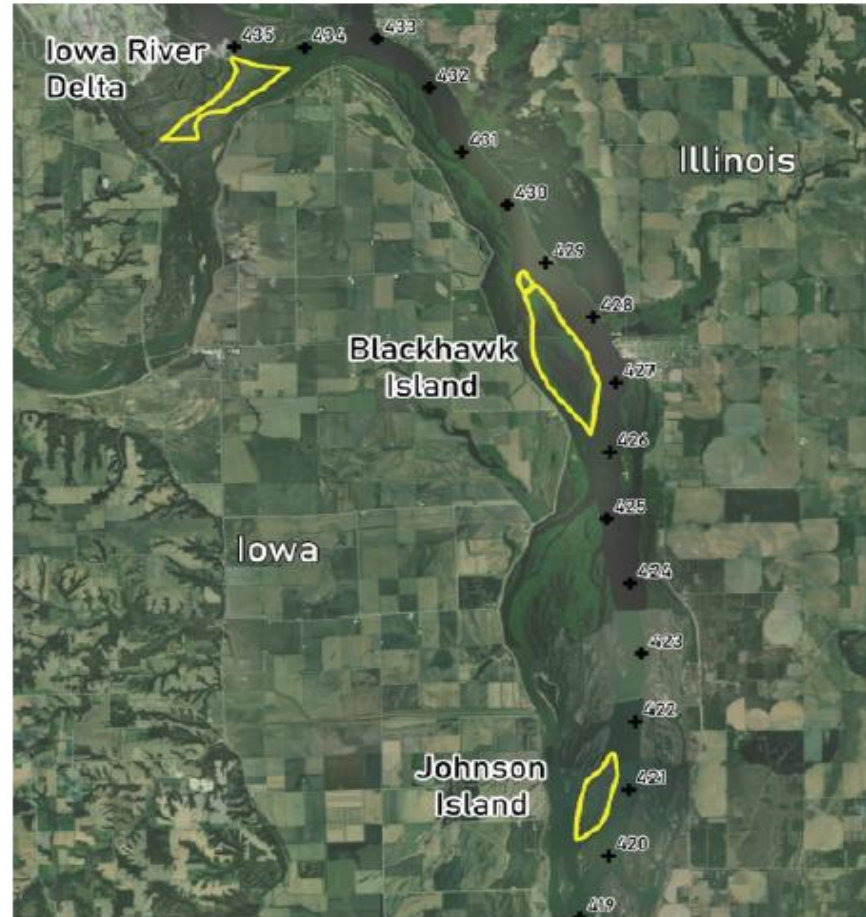
- Pool 18 River Miles 434.8 to 420.2 Louis & Des Moines County, Iowa
- Completed Feasibility: Fall 2026
- Construction Started: Spring 2029
- Scheduled Completion: Winter 2031
- Total Project Cost: \$4M



### POTENTIAL MEASURES ▶

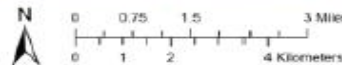
- Timber Stand Improvement
  - ▶ Forest thinning treatments, planting trees and shrubs, seed collection and dispersal, prescribed fire, soil scarification, slash handling, forestry mulching, invasive species treatments
- Non-Forestry Plantings
  - ▶ Aquatic vegetation, emergent vegetation, pollinator, and herbaceous plantings
- Ridge and Swale
  - ▶ Imitate natural topographical undulation pattern that forms in an undisturbed floodplain
- Pothole Scraping
  - ▶ Create isolated potholes or depressions into interior of sites to retain water after seasonal floods and inundation events to provide additional wetland habitat
- Thin Layer Placement
  - ▶ Spread material to raise elevations of terrain by protecting trees from long inundation events that could cause mortality

### SITE PLAN ▶



Pool 18 Forestry HREP Project Area Map

- River Miles
- Project Areas
- Project Areas



### PROJECT PARTNERS ▶



### PROBLEMS ▶

Forest decline and loss of diversity, abundance of invasive species, site conditions do not support sustainable natural regeneration, loss of wetlands.

### PROJECT OBJECTIVES ▶

- 1 Restore forest diversity based on species richness and age class
- 2 Increase area & vegetation diversity of seasonal wetlands and their transitional zones
- 3 Improve forest understory based on amount and diversity of vegetation





## QUICK FACTS ▶

- Location:
- Pool 21, River Miles 527.0-332.0  
Adams County, Illinois
- 2,350-Acre Area
- Feasibility Report Completed: Fall 2024
- Estimated Construction Start: Fall 2026
- Estimated Completion: Fall 2030
- Total project cost: \$42.6 million

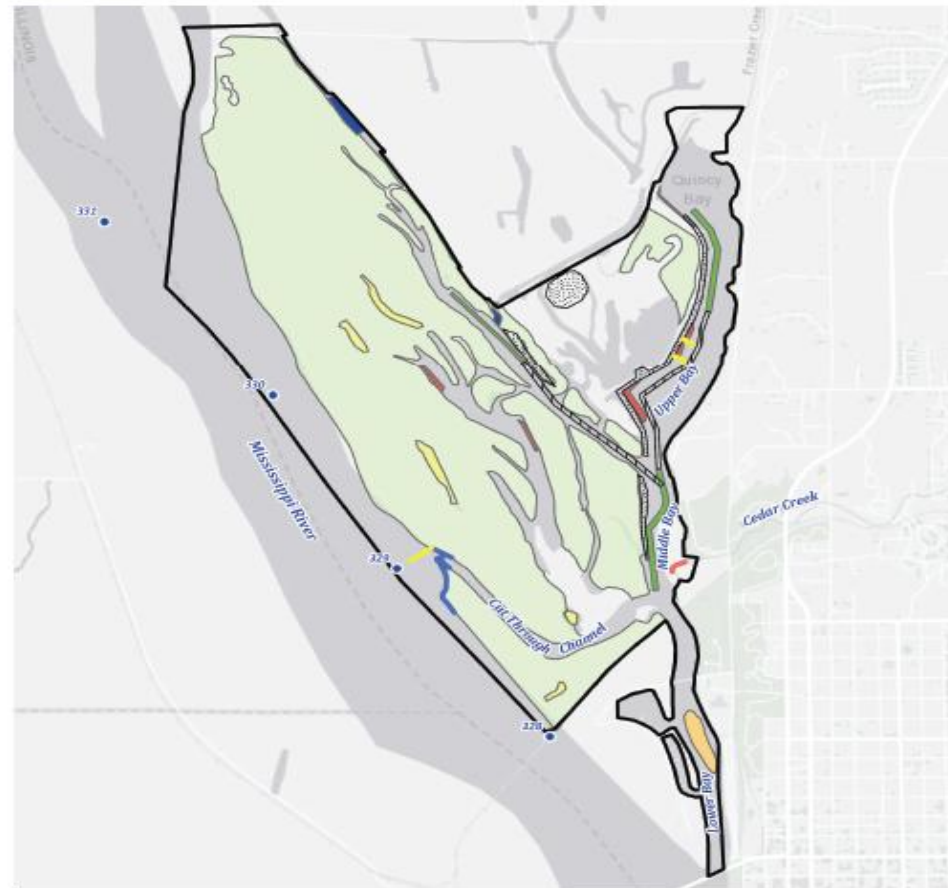
## THE PROBLEM ▶

Human activity over the past two centuries within the UMR basin has negatively impacted the UMR, its habitats, and the species that use it. Increased sedimentation and loss of connectivity has degraded fish, wildlife, and migratory bird habitat. Historically, Upper Quincy Bay was an important stopover point for diving ducks during spring and fall migrations. Today, the reduced depth of Upper Bay and lack of aquatic vegetation supports very few diving ducks. Furthermore, the relatively diverse pre-settlement floodplain forest is now largely dominated by silver maple and cottonwood. Specific problems included in this Study include:

1. Sedimentation within the Study area has resulted in decreased water depths and reduced habitat availability and quality for native species
2. Floodplain forests have experienced an increase in invasive species and a decrease in regeneration and diversity
3. Decreased aquatic vegetation and use by migratory waterfowl

Without restoration, the Study area's important ecosystem would continue to degrade. Open waters would continue to convert to shallow backwaters and drier bottomland forests would continue to develop into plant communities dominated by flood tolerant species and invasive species such as reed canary grass and Japanese hops.

## SITE PLAN ▶



UMRR Quincy Bay HREP - Recommended Plan



## PROJECT OBJECTIVES ▶

- 1 Reduce sediment deposition and sediment input into the Study area to maintain connectivity and quality of secondary and tertiary channel habitat for riverine dependent species of native fish
- 2 Increase backwater habitat quantity and quality for native fish species
- 3 Increase abundance of emergent aquatic vegetation, rooted floating leaved, and submerged aquatic vegetation within the Study area to maintain, establish, and expand diverse aquatic vegetation beds
- 4 Enhance and restore areal coverage of floodplain forest vegetation and habitat to support a diverse forest composition (structure, age, and species)

## PROJECT MEASURES ▶

- Cut Through Channel modification structure with river training structures
- Cedar Creek modification and stabilization
- Vegetated overflow structures
- Aquatic vegetation plantings with river training structures
- Dredging for overwintering habitat
- Dredging for sediment reduction
- Dredged material placement (one site with forest rehabilitation)
- Pothole wetland enhancement
- Timber Stand Improvement

## PROJECT PARTNERS ▶



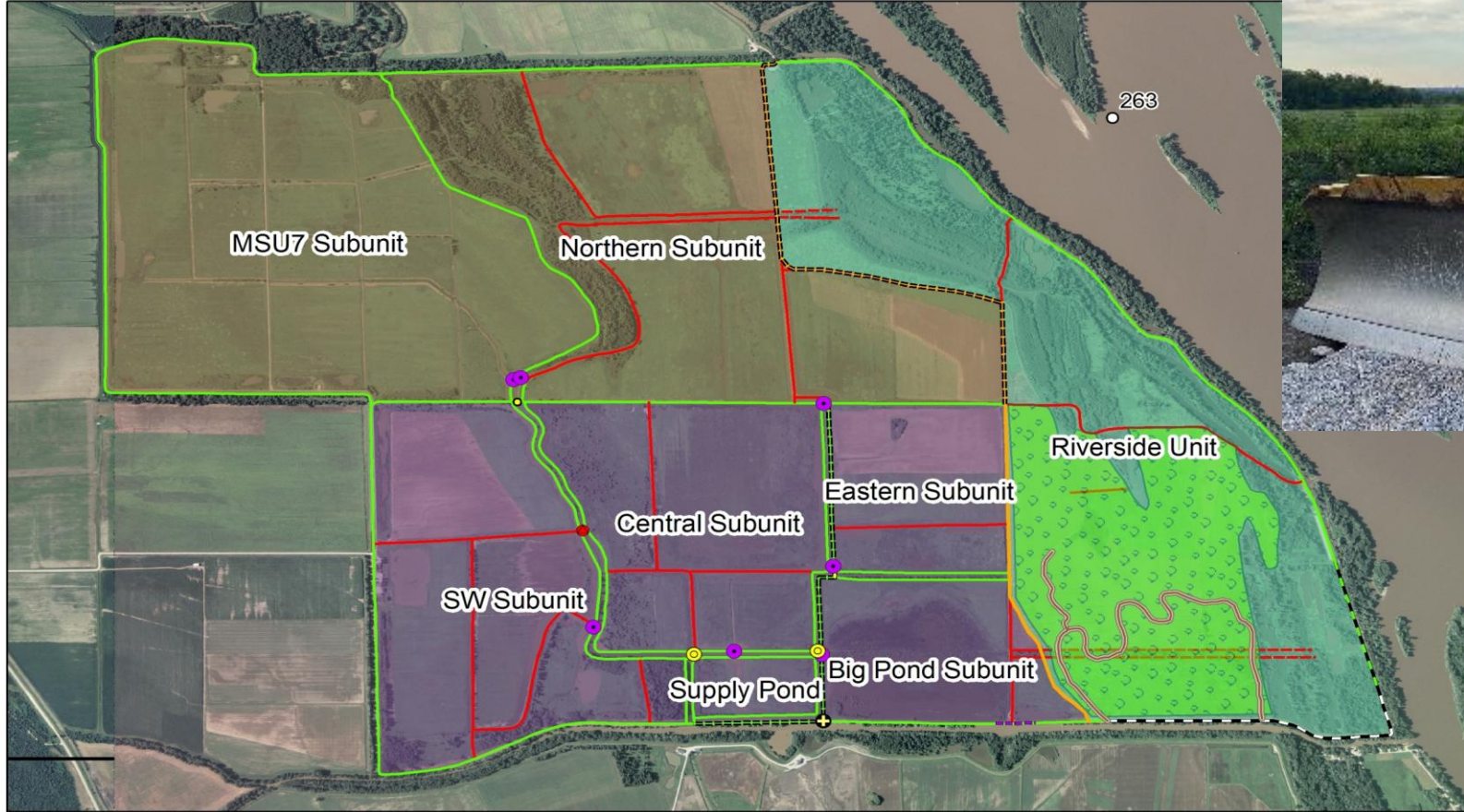




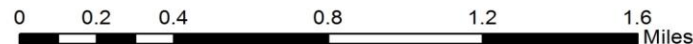
# CLARENCE CANNON HREP



Jul 5, 2023 at 7:28:39 AM  
Arnado MO 63830  
United States



- |                  |                   |                            |                            |                   |
|------------------|-------------------|----------------------------|----------------------------|-------------------|
| <b>New Units</b> | <b>Remove WCS</b> | <b>Diesel Pump Station</b> | <b>Service Access Road</b> | <b>Notch Berm</b> |
| North Unit       | New Channel WCS   | New Subunit WCS            | New Berm                   | Remove Berm       |
| Riverside Unit   | New Culvert       | Restore Meander            | Degrade Exterior Berm      | Setback           |
| South Unit       | Reforestation     | Partial Degrade            | Maintain Berm              | New Spillway      |



14 May 2013





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# ADVANCED CONSTRUCTION



## CONSTRUCTION

### Clarence Cannon Refuge, MO (Pool 25)

- Completed Berm Setback
  - River Tested!
- Completed Tree Planting Task Order
  
- MVS Awarded Construction Contracts, Task Orders, and Modifications

**Clarence Cannon HREP  
Berm Setback**







# MEREDOSIA ISLAND HABITAT REHABILITATION & ENHANCEMENT PROJECT

Location: Illinois River Miles 71.3-79.0, Left Descending Bank, Morgan and Cass Counties, upstream of Meredosia Illinois

US. Fish and Wildlife Service Owned 3,645 acres of federal lands and waters as part of the Meredosia National Wildlife Refuge Complex

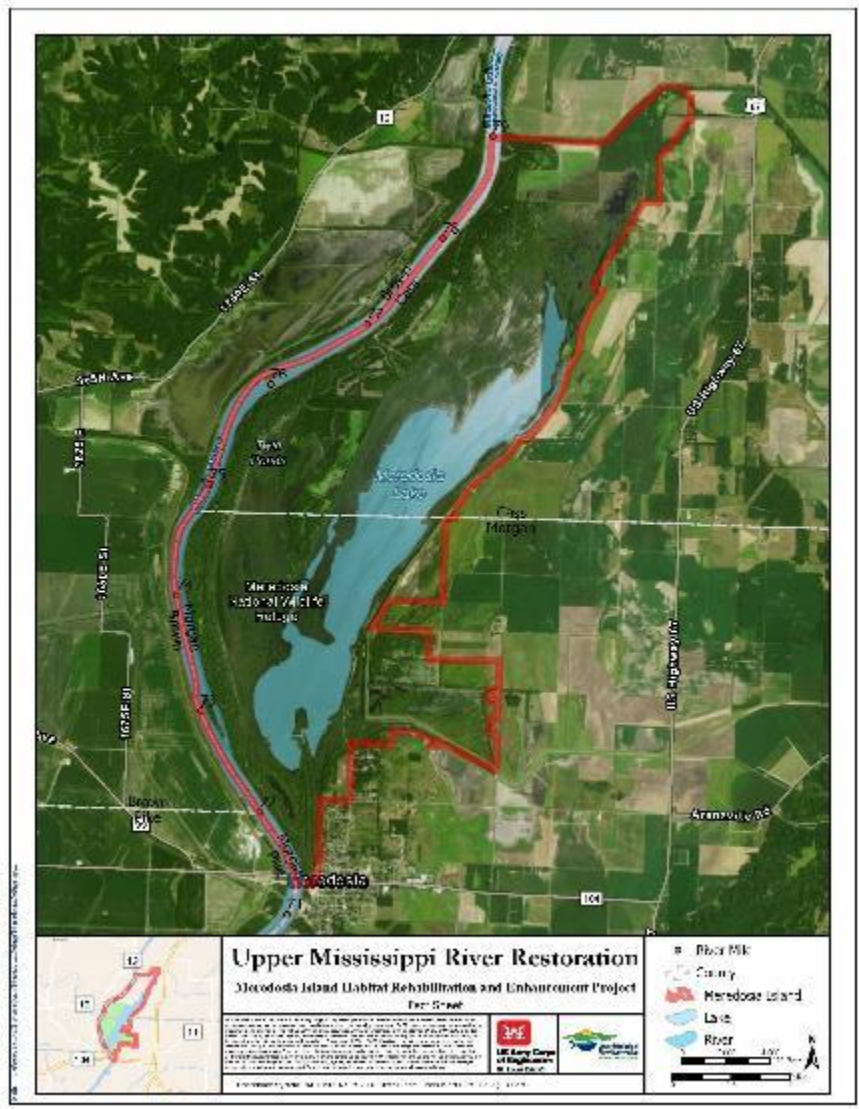
### Project Goals:

- 1) Increase depth diversity of backwater areas
- 2) Improve floodplain and aquatic vegetation diversity and abundance
- 3) Improve hydrological functioning and connectivity

### Potential Solutions / Measures to meet the preliminary project objectives:

- Berm modifications
- Open water excavation
- Flow modification
- Water control structures
- Timber stand improvement
- Tree planting
- Ridge and swale topography

Estimated Total Project Cost: \$29.0M







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# UMRR INVESTMENT IN THE MID-AMERICA PORT COMMISSION REGION



## Investment:

- 1986 – 2024
  - 12 Completed Projects
  - 27,870 Acres
- 2025 – 2035
  - 5 Projects in Planning, Design, and Construction
  - 8,499 Acres
- Long Term Resource Monitoring
  - Need for more information in Pools 14 to 25 & possible approaches
    - Partnerships with other efforts collecting data
    - Synthesis of existing data
    - Additional staff at existing field stations
    - A new field station







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# LONG TERM RESOURCE MONITORING IN THE MID-AMERICA PORT COMMISSION REGION

13



## Pools 14-25:

- Submersed aquatic vegetation suitability
- Distribution maps of floodplain trees and plants and change
- New floodplain area since 1989
- Distribution of submersed and aquatic floodplain vegetation 1989-2020
- 50-year forecasts of shallow and deep water over the next 50 years
- Land cover & Land Use 1989-2020
- Water level fluctuation during the growing season
- Proportion of the time open river conditions exist
- The distribution, timing and duration of floodplain inundation 1986 – 2024
- Fish sampling from Jun 15 to October 31 in Pools 16, 17, 18, 19, 20, 21, and 22\*
- Freshwater mussel surveys have been conducted in 18.\*

- Pool 19 has some additional data related to aquatic vegetation, waterfowl banding studies, grass carp, and surveys for faucet snails\*
- Aquatic vegetation data collected by the UMRCC's annual focused vegetation sampling (different location each year based on partner input)

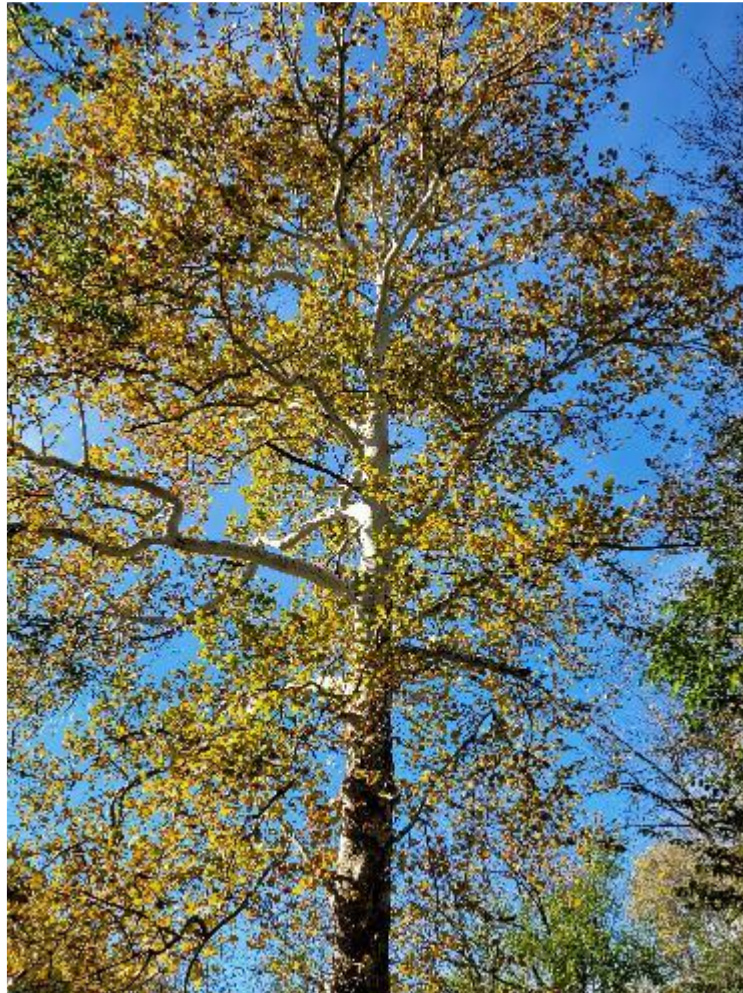






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# DISCUSSION





# NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

Corn Belt Ports  
18 March 2025



US Army Corps  
of Engineers®

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# NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)



## FUNDING RECEIVED TO DATE

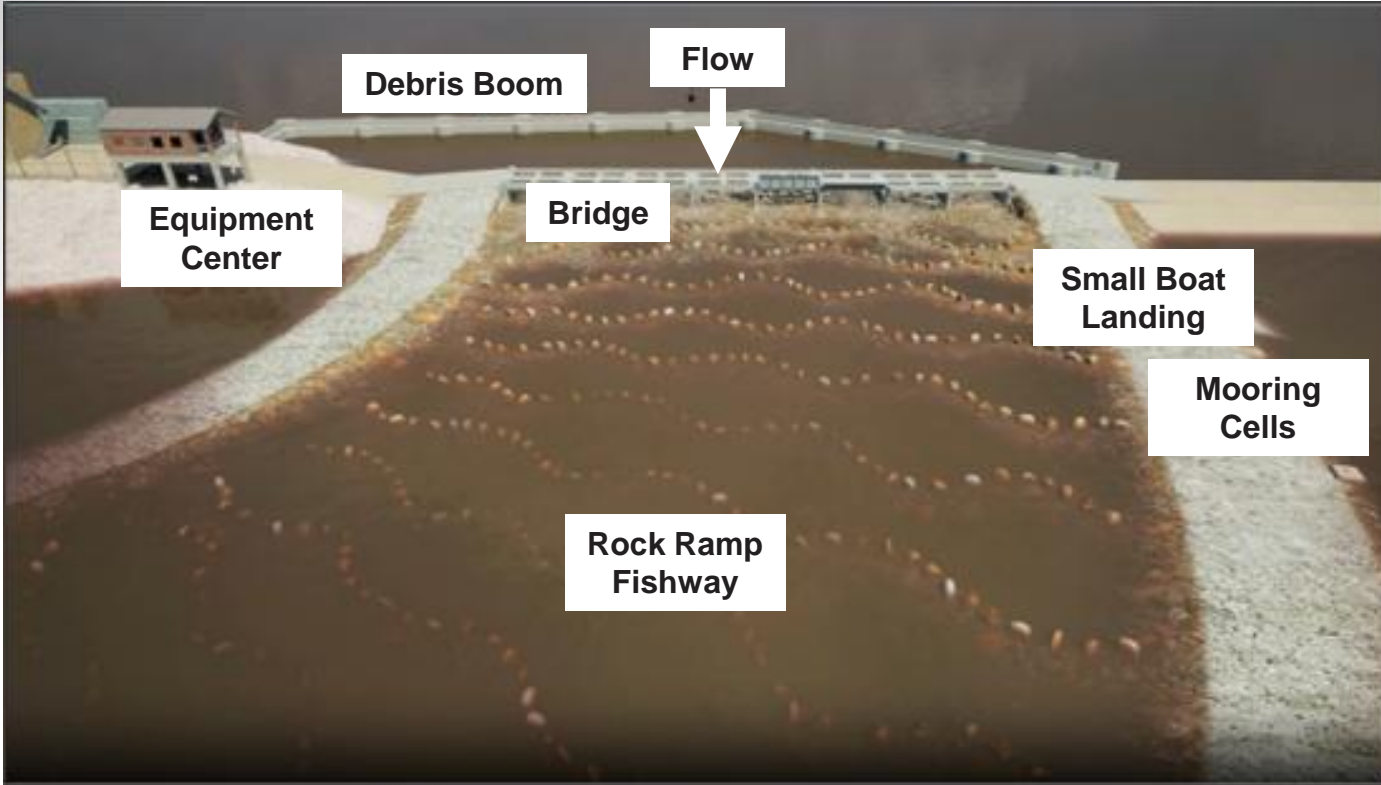
Funding Type	Total Received
Bi-Partisan Infrastructure Law of 2022	\$829.1M Total - \$732M for Lock 25 New 1200' Lock - \$97.1M for Lock and Dam 22 Fish Passage
FY22 Congressionally Directed Spending	\$45.1M Total - \$27.1M for Navigation Projects - \$18M for Ecosystem Projects
FY22 USACE Work Plan	\$12.179M 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
FY24 Congressionally Directed Spending	\$120M for Navigation and Ecosystem Projects





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# LOCK AND DAM 22 FISH PASSAGE



## CONSTRUCTION

- Scheduled to begin in early summer 2025.

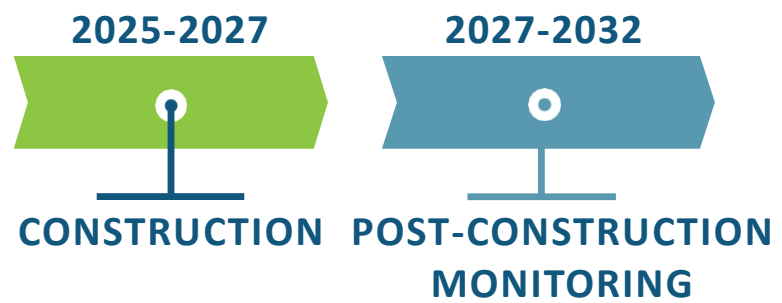
## MONITORING

- Pre-construction monitoring ongoing

## PROJECT 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 SCHEDULE



### PROGRAM PARTNERS







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# LOCK 25 NEW 1200' LOCK



## DESIGN

- 100% design scheduled to be complete in JUN 2026

## CONSTRUCTION

- Phase 1 contract complete
- Bulkhead fabrication contract awarded and underway
- Guide cell contract in solicitation, contract award in fiscal year 2025



## PROJECT SCHEDULE

2022-JUNE 2026

2027-2034



PROJECT DESIGN

CONSTRUCTION





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# LAGRANGE NEW 1200' LOCK



**DESIGN**

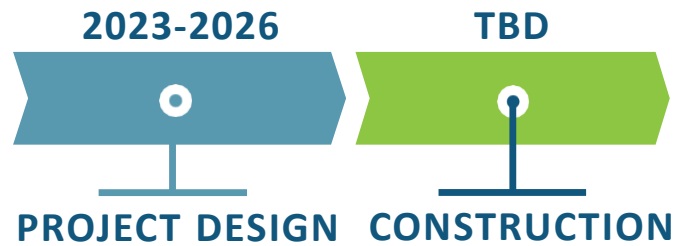
- Project design ongoing, scheduled to be complete in 2026.

**CONSTRUCTION**

- Bulkhead fabrication contract ongoing.
- Additional on-site construction pending appropriations.



## PROJECT SCHEDULE



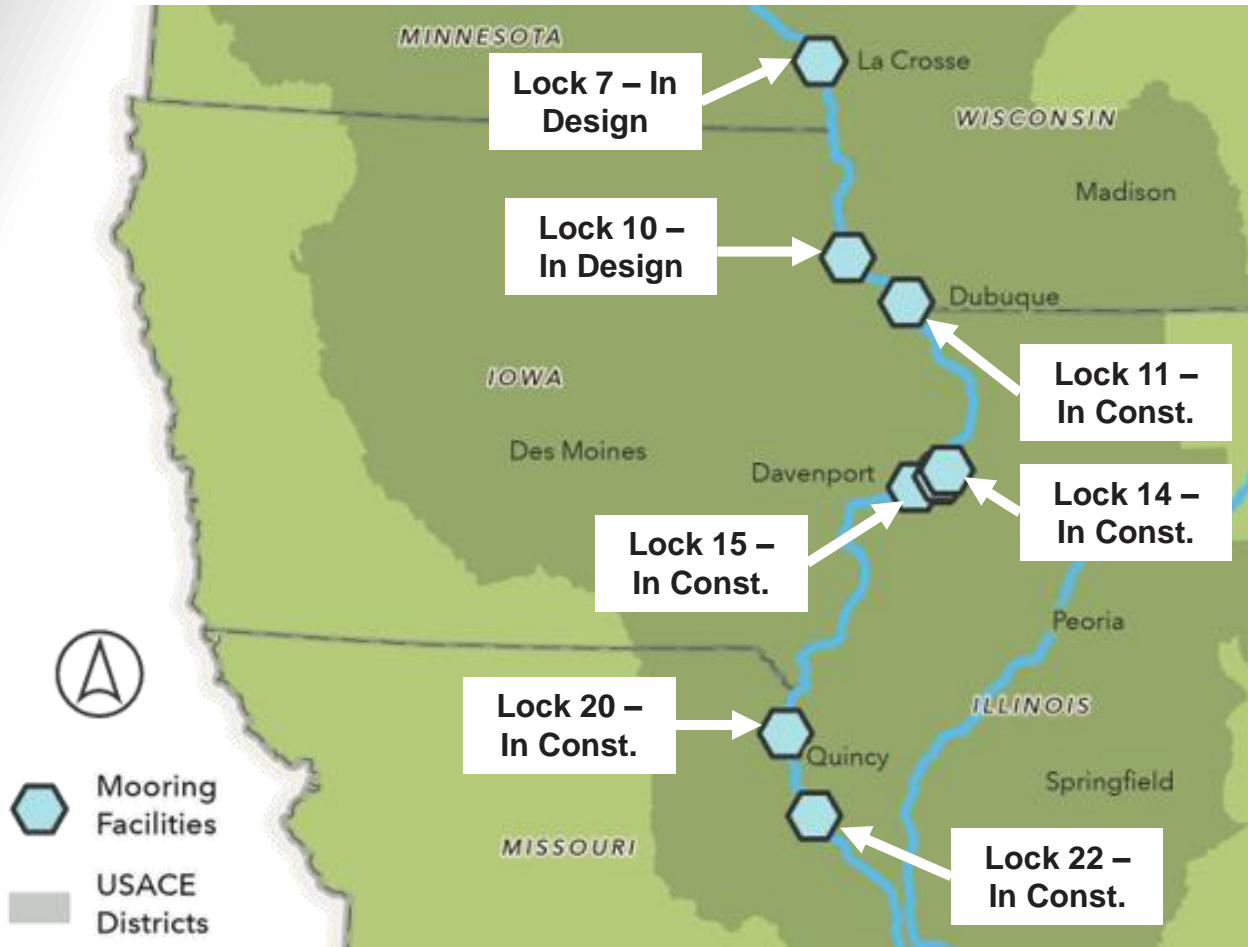




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# MOORING FACILITIES



## DESIGN

- Ongoing for Locks 7 and 10

## CONSTRUCTION

- Ongoing for Locks 11, 14, 15, 20, and 22.





# FY25 PRIORITIES

## Navigation

- Mooring cell construction contract awards (Locks 7 and 10)
- Lock 25 new 1200' lock continued design, on-site construction contracts
- LaGrange new 1200' lock continued design, administration of the machinery fabrication contracts
- Construction of mooring cells at Locks 11, 14, 15, 20, and 22

## Ecosystem

- Lock and Dam 22 Fish Passage construction
- Continued project planning and design for the ongoing projects
- 2-3 construction contracts for ecosystem restoration (projects that initiated planning in FY22). Likely projects are: Wacouta Bay (St Paul District), Sny Magill Effigy Mounds (St Paul District), and MMR Stone Dike Alterations (St Louis District)
- Reach planning



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# NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

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

## NAVIGATION AND ECOSYSTEM ONGOING 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 and additional 5-1,200-foot locks, systemic mitigation, and hundreds of ecosystem restoration projects.

CONSTRUCTION	DESIGN
2 Pool 4 Island System Mitigation	3 Wacouta Bay
1 LaGrange New 1,200-Foot Lock	5 Sny Magill, Effigy Mounds National Monument
13 Lock and Dam 22 Fish Passage	14 Pool 24 Island Restoration-Denmark and Drift Islands Complex
19 Lock 25 New 1,200-Foot Lock	Mooring Cells LD 7, 10
Mooring Cells LD 11, 14, 15, 21, 22	

AE SERVICE CONTRACTS	
9 Andalusia Island Complex Planning	11 LaGrange New 1,200-Foot Lock Design

PROJECT PLANNING	
4 Johnson Island	17 Clarksville/Carroll Island Side Channel
6 Sabula Lakes	18 Hausgen Island Side Channel
10 Liverpool Side Channel	20 MMR-NWR-Horse Island
	21 Middle Mississippi River Stone Dike

SYSTEMIC FOREST MANAGEMENT	
Pool 5A McNally Invasives	Pool 25 Mason Island Forest Inventory
Pool 11 Forest Inventory	Pool 25 Slim Island Forest Inventory
Pool 17 Forest Inventory	Pool 26 Mile 215 Tree Planting
Pool 24 Gilbert Island Tree Planting	

<https://www.mvr.usace.army.mil/Rock-Island-District/Programs/NESP/>







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Since 2022, NESP has received significant funding from Congressionally Directed Spending, USACE Work Plan, and the Fiscal Year 2022 Bi-Partisan Infrastructure Law. The program received the "new start" for construction on January 19, 2022.

Since 2022, the program has obligated more than \$200M for the navigation and ecosystem projects shown.

CONSTRUCTION COMPLETE

- 1 Pool 2 Wingdam Notching
- 7 Lock 14 Downstream Mooring Cell
- 8 Starved Rock Breakwater
- 12 Moore's Towhead System Mitigation
- 15 Alton Pools Islands - Island Protection
- 16 Twin Islands Protection and Enhancement
- 19 Lock 25 New 1,200-Foot Lock Phase 1 Lockwall Modification



ONGOING CONSTRUCTION AND ACTIONS

- 2 Pool 4 Island System Mitigation
- 11 LaGrange New 1,200-Foot Lock Phase 1 Machinery Fabrication
- 13 Lock and Dam 22 Fish Passage
- 19 Lock 25 New 1,200-Foot Lock
- Mooring Cells LD 11, 14, 15, 21, 22
- Topobathy (Data Acquisition)
- Pool 8 Goose Island Invasive Control
- Pool 26 Cuivre Island Tree Planting

2,000 FOREST INVENTORY PLOTS COVERING 5,000 ACRES



NESP PARTNERS



NGOs

55 Tribes

Public

