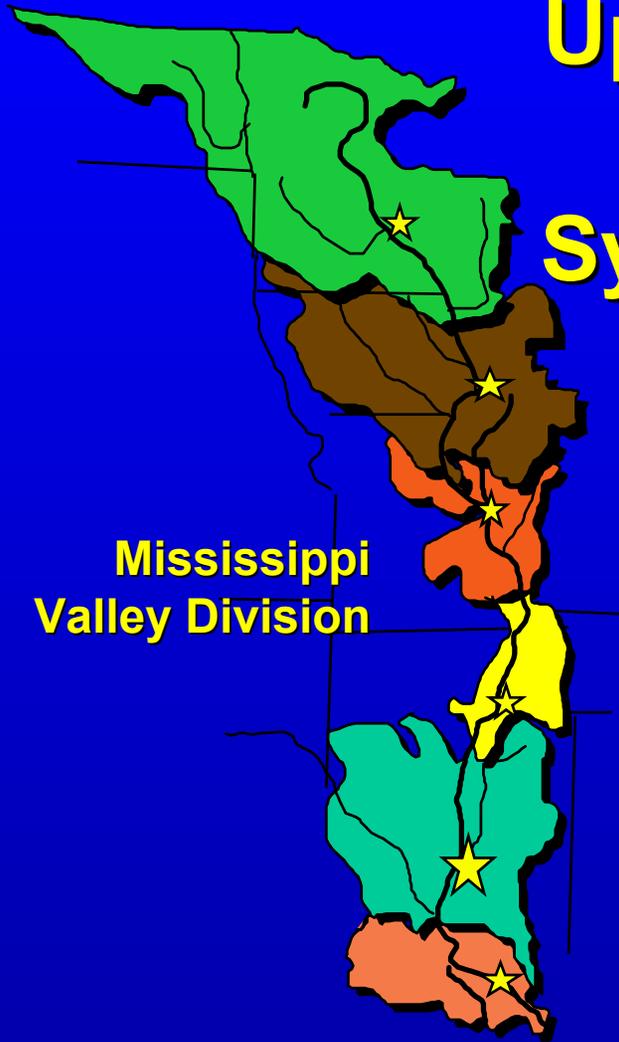


# Upper Mississippi River - Illinois Waterway System Navigation Study



# Restructured Study-Aug 01

---



•**Scope:** Focus on authorized Federal navigation projects and the ecological and floodplain resources that are affected by these projects.

## •**Objectives**

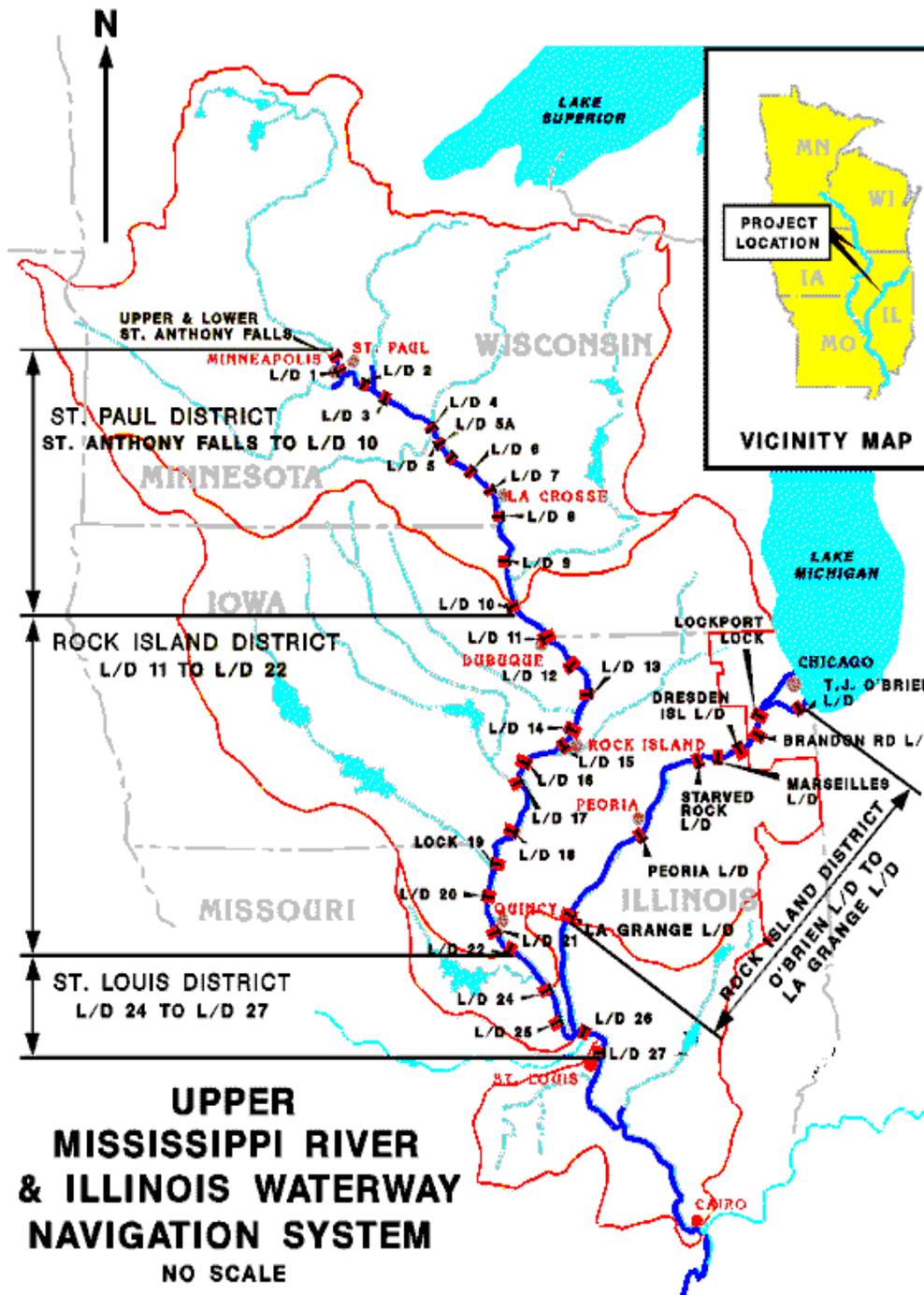
- Efficient National Navigation System
- Achieve an environmentally and economically sustainable system.
- Address ecosystem and floodplain management needs related to navigation.
- Operate and maintain the system to ensure economic, environmental, and social sustainability

## Navigation System

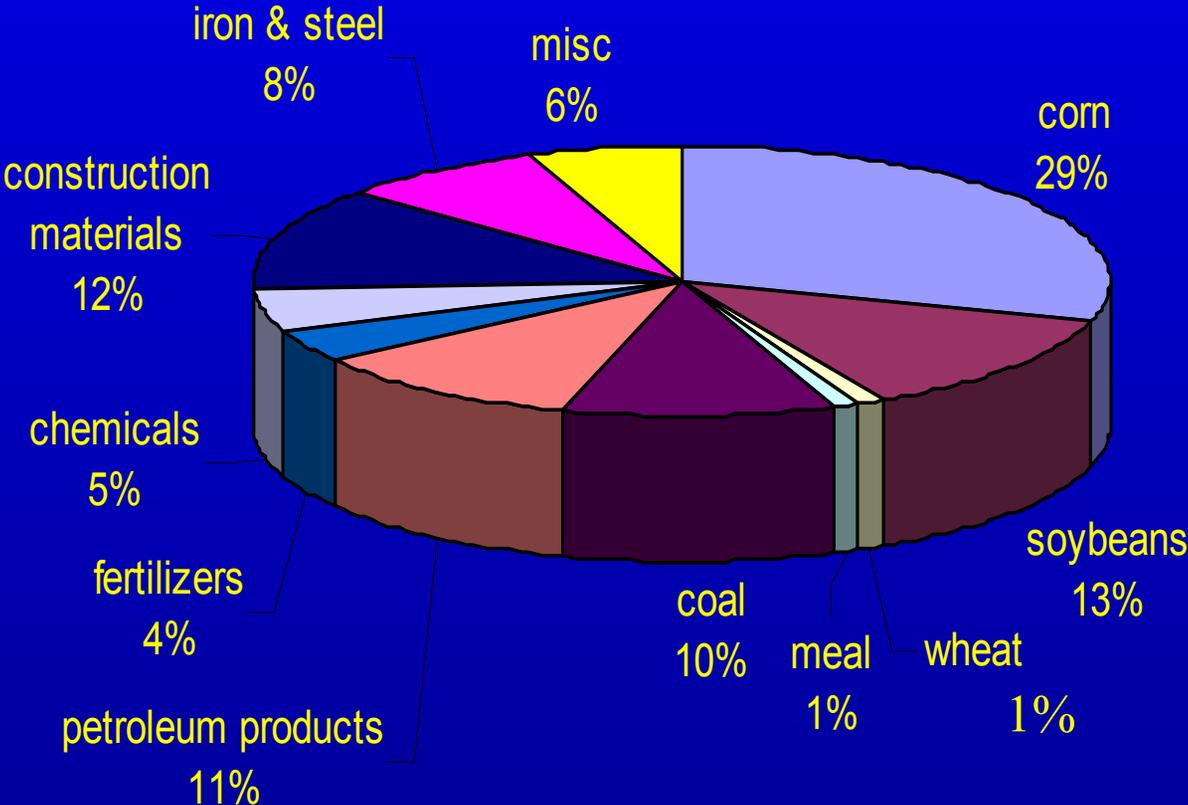
- 37 Navigation Lock and Dam Sites
- 1200 Miles of Navigable Channel

## Responsibilities

- Operations and Maintenance
- Major Rehabilitation
- System Planning

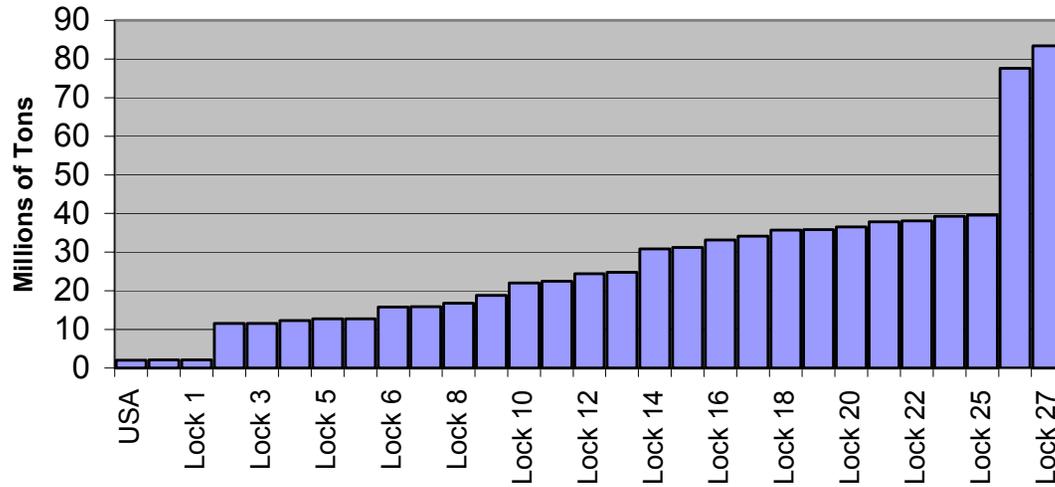


# Upper Mississippi River - Illinois Waterway 2000 Traffic Distribution

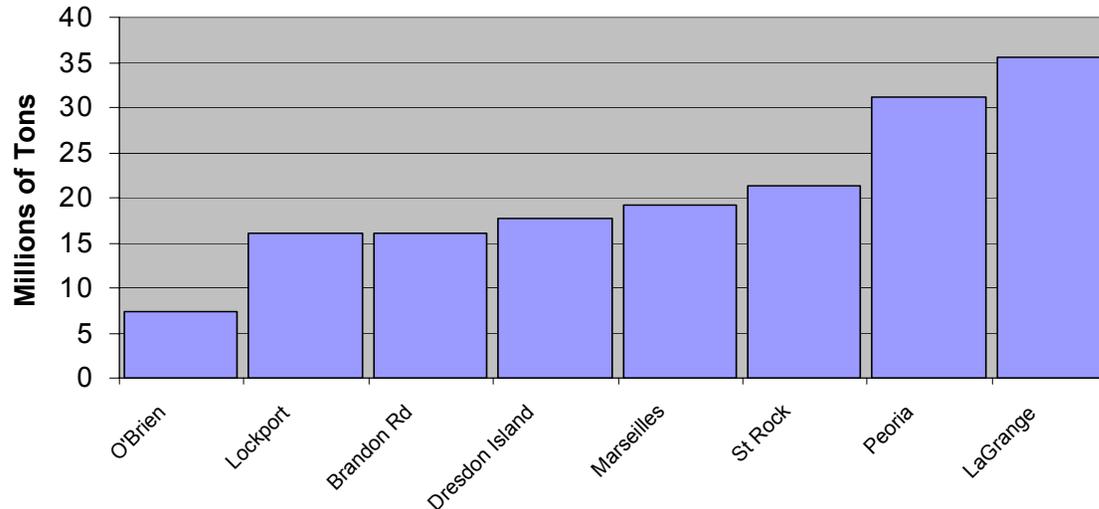




**1999 UMR Traffic by Lock**  
(Millions of Tons per Year)



**1999 IWW Traffic by Lock**  
(Millions of Tons per Year)





# Traffic Delays

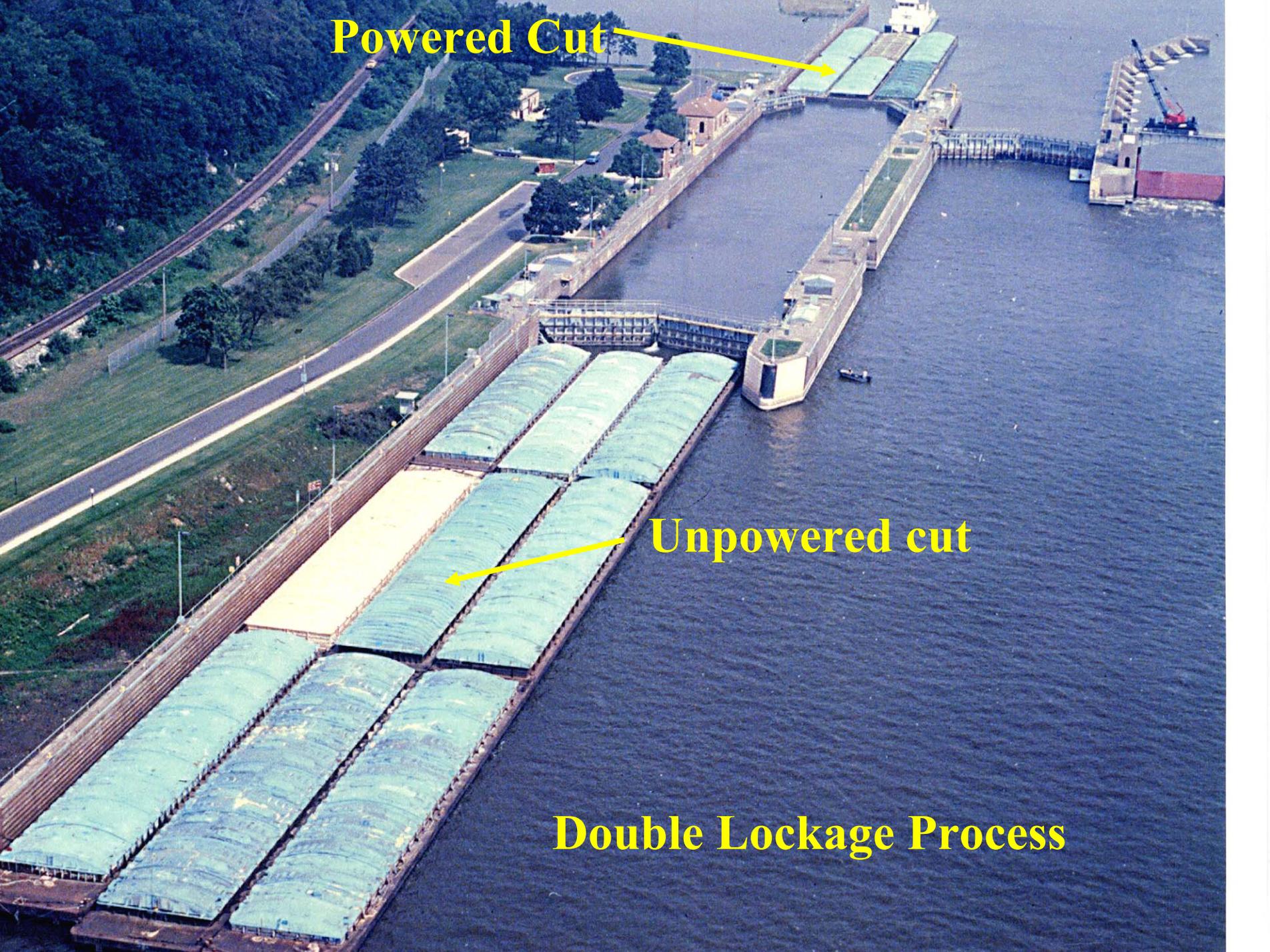
**Powered Cut**



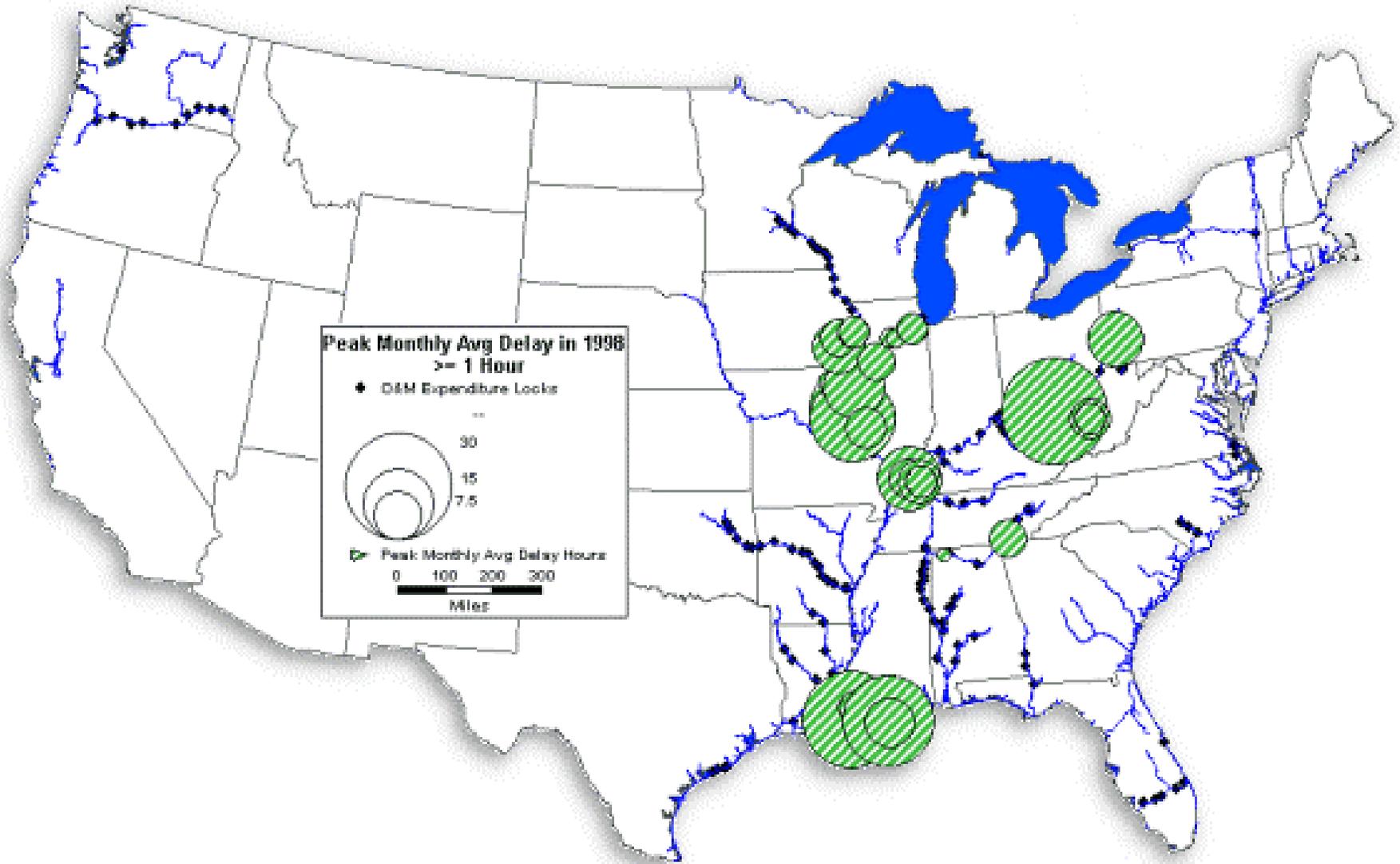
**Unpowered cut**



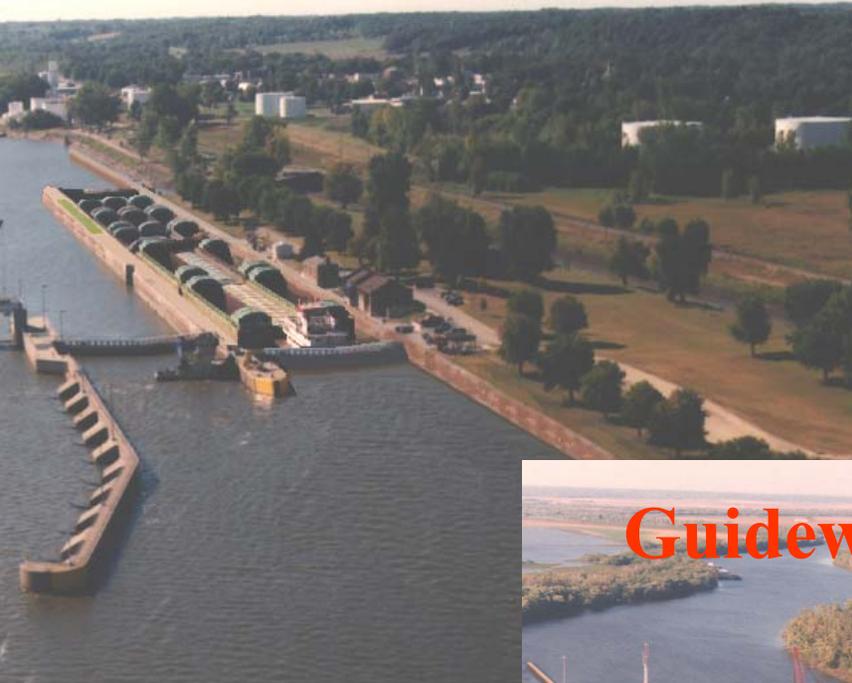
**Double Lockage Process**



# Traffic Delays



# 1200-Foot Lock



# Adjacent Moorings



# Guidewall Extension



# Structural Measures



# Non-Structural Measures

---

- Industry Self-Help
- Scheduling
- N-Up/N-Down Policy
- Congestion Fees
- Tradable Permits

# Mississippi River Traffic



# Nationally Significant Ecosystem

- Over 226,000 acres of National Fish and Wildlife Refuge land.
- Provides food and habitat for hundreds of species of birds, mammals, amphibians, reptiles, plants, macro-invertebrates and fish.
- Water supply for municipal and industrial use.
- Playground for fishing, hunting, and boating.

# Restructured Study-Aug 01

---



• **Scope:** Focus on authorized Federal navigation projects and the ecological and floodplain resources that are affected by these projects.

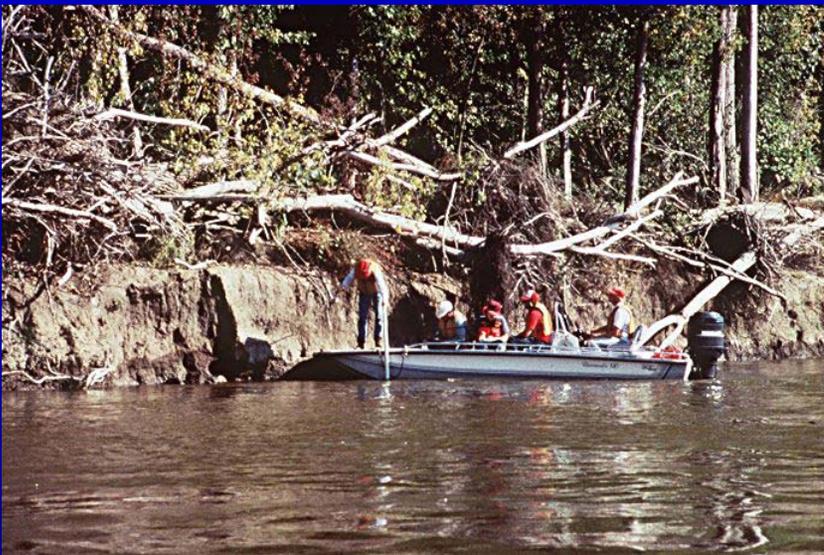
## • **Objectives**

- Efficient National Navigation System
- Achieve an environmentally and economically sustainable system.
- Address ecosystem and floodplain management needs related to navigation.
- Operate and maintain the system to ensure economic, environmental, and social sustainability

# Environmental Impacts



- Site Specific
- Cumulative
- System



# Collaboration



*“To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System”*

# ENVIRONMENTAL OBJECTIVES

---



- **Water Clarity**
- **Backwater Depth**
- **Water Level**
- **Connectivity**
- **Aquatic Areas**
- **Terrestrial Areas**
- **Land Cover / Use**
- **Plants**
- **Fish**
- **Birds**
- **Other**

**INFORMATION**

**ASSESSMENT**

**PLANNING**

**ADAPTIVE**

**MANAGEMENT**

**MONITORING**

**IMPLEMENTATION**

