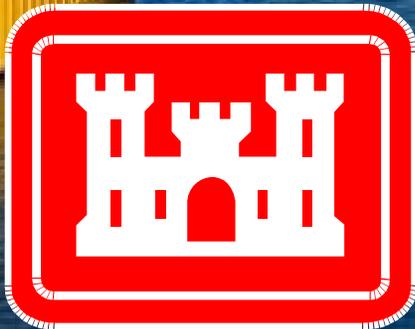


Inland Waterways: The Funding Challenge

Presentation to
U.S. Section PIANC: 100th Anniversary Meeting
Vicksburg, Mississippi
April 18, 2002

BOB PIETROWSKY
DIRECTOR, INSTITUTE FOR WATER RESOURCES
U.S. Army Corps of Engineers



U.S. Fuel-Taxed Waterway System

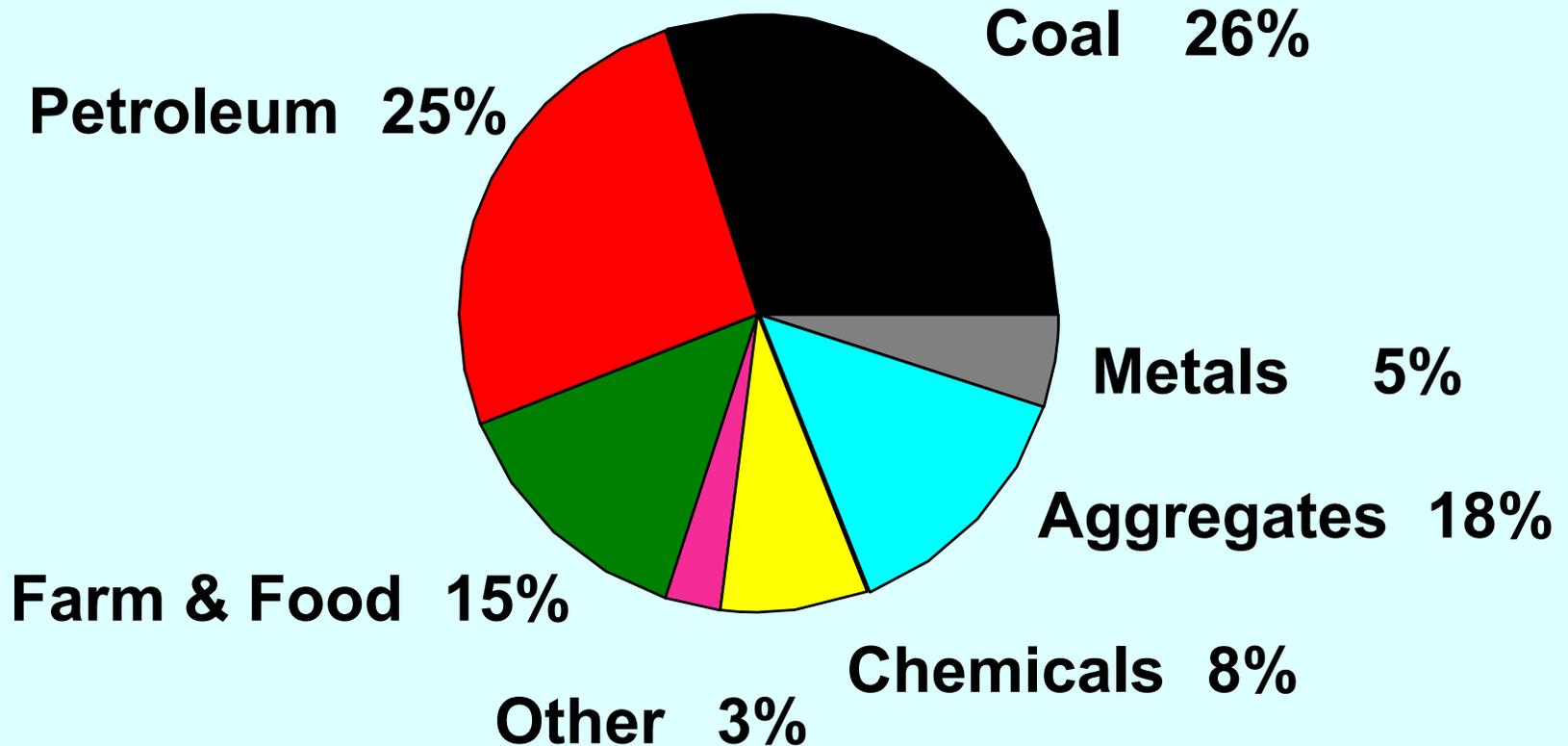


- **Nearly 11,000 miles 9-ft & Over**
- **171 Lock Sites / 215 Chambers**
- **Replacement Value \$125+ Bn**



Inland Waterway Commodities

Share by Tons, 2000

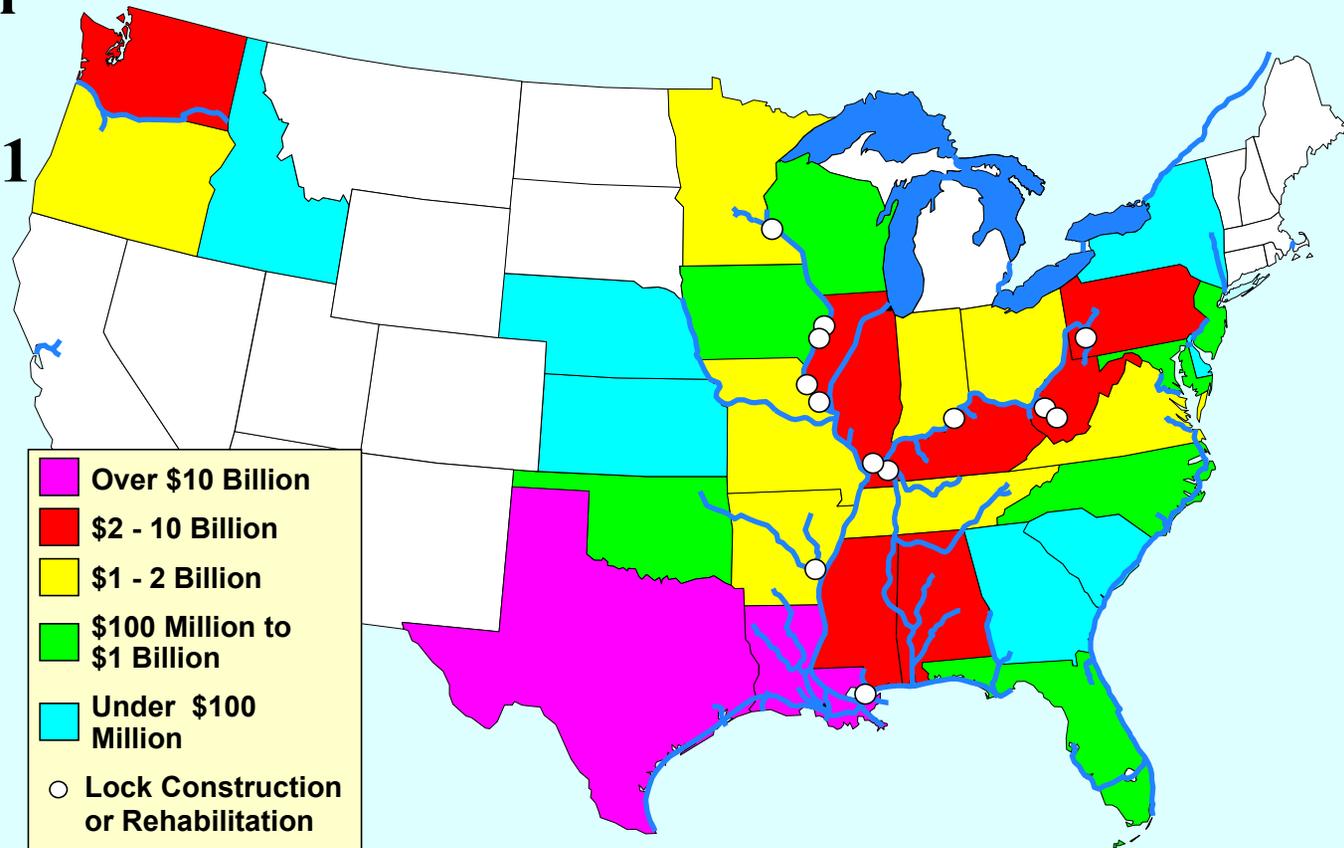


Total: 627 Million Tons



Value of Inland Waterborne Trade by State of Origin

- Over \$73 billion in cargo
- Shipped from 31 states
- At average savings of \$10.67/ton

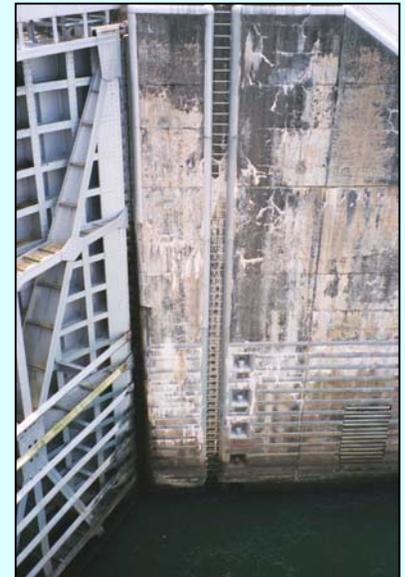


Based on 1997 data developed by TVA and USACE.



Challenge: Aging Water Resources Infrastructure

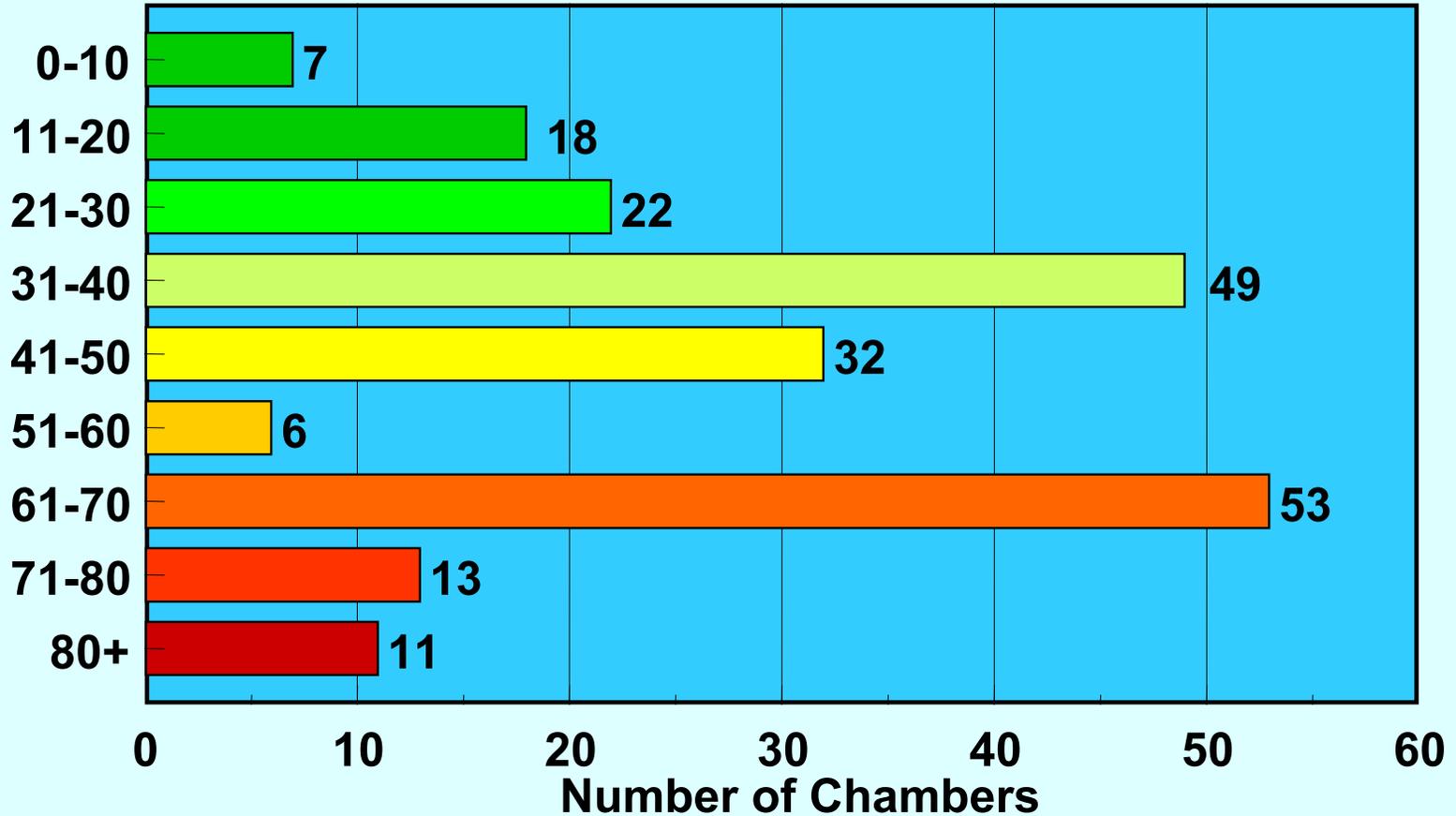
- Investments in water resources infrastructure have declined in real terms
- Aging infrastructure results in more frequent closures for repairs, decreased performance and costly delays





Challenge: Aging Lock Inventory

Age in 2000 (Years)

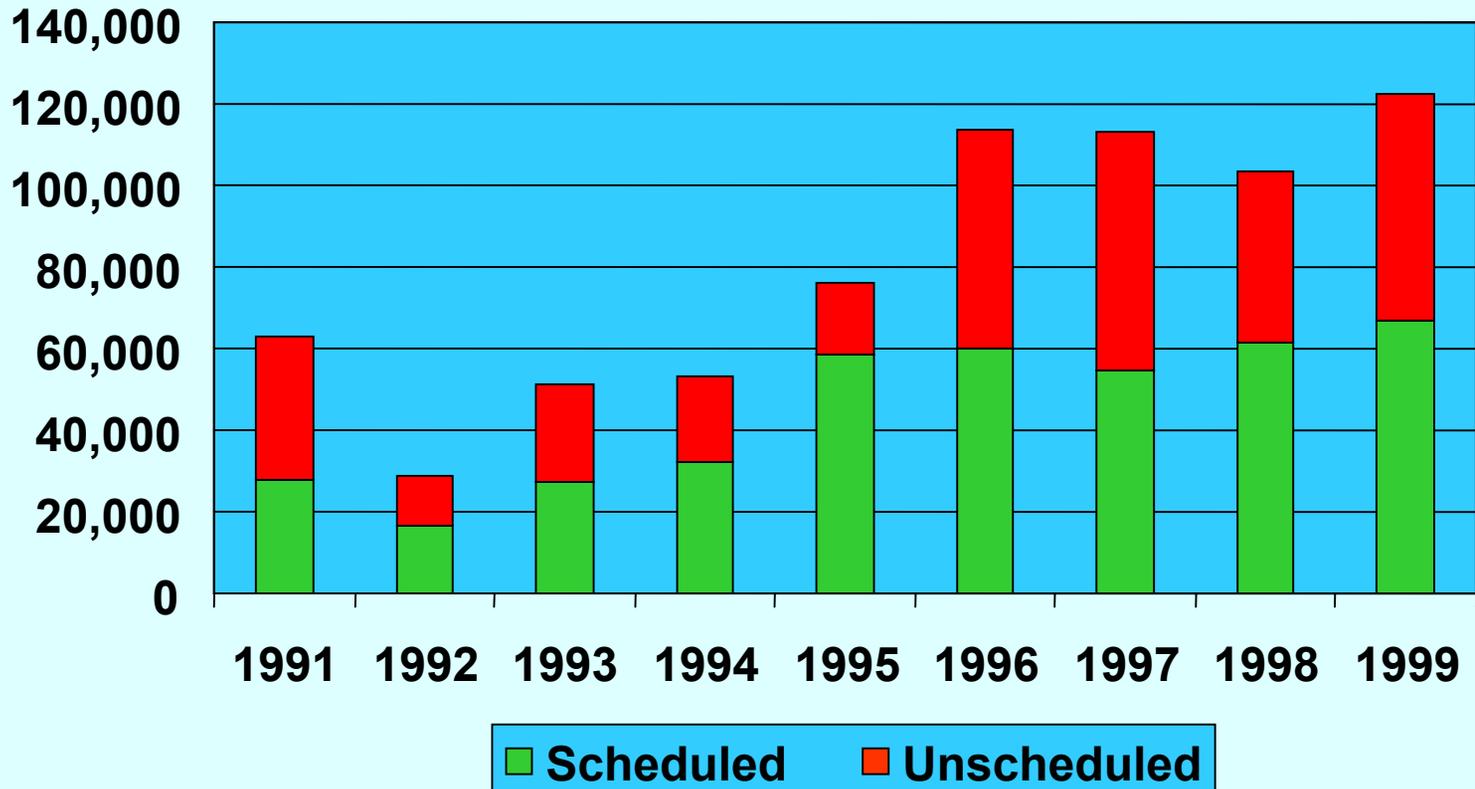




Challenge: Aging Infrastructure + O&M Backlog = Increasing “Downtime” at Locks

Navigation Lock Unavailability Total Hours - Scheduled vs. Unscheduled

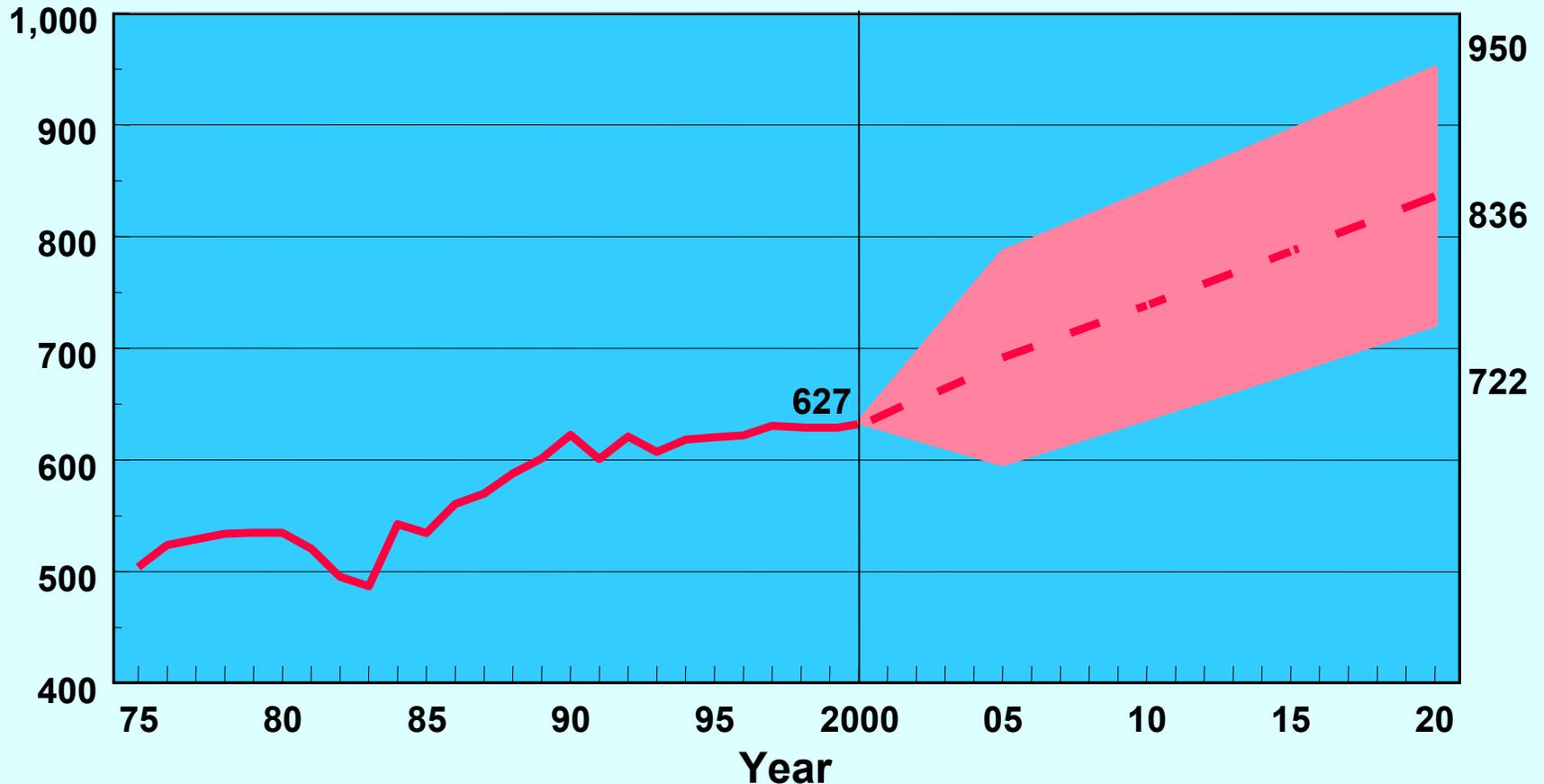
Hours Unavailable





Challenge: Inland Waterway Traffic Projected to Grow 33% by 2020

Million Tons





Challenge: Growing Traffic = Increased Lock Delays

Multiple lockages to pass a tow result in long queues that are costly and inefficient.



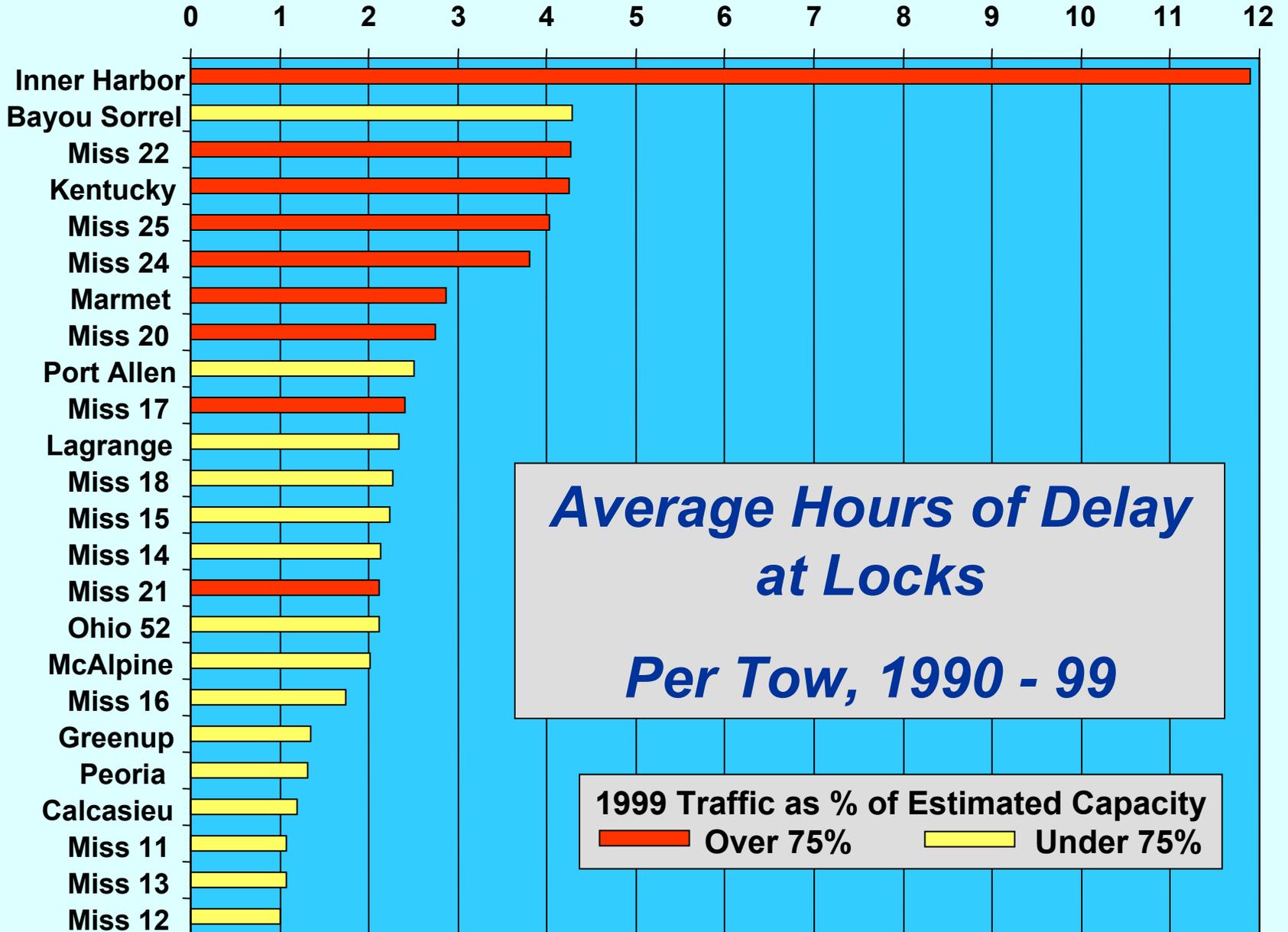
Queues at old L&D 26 on the Mississippi could last hours or even days.

A new 1200' main chamber allows tows of 15 barges to pass in a single lockage, eliminating most of the delay.

The new lock handles over 75 million tons annually -- mostly export grain.



Average Hours of Delay per Tow, 1990 - 99

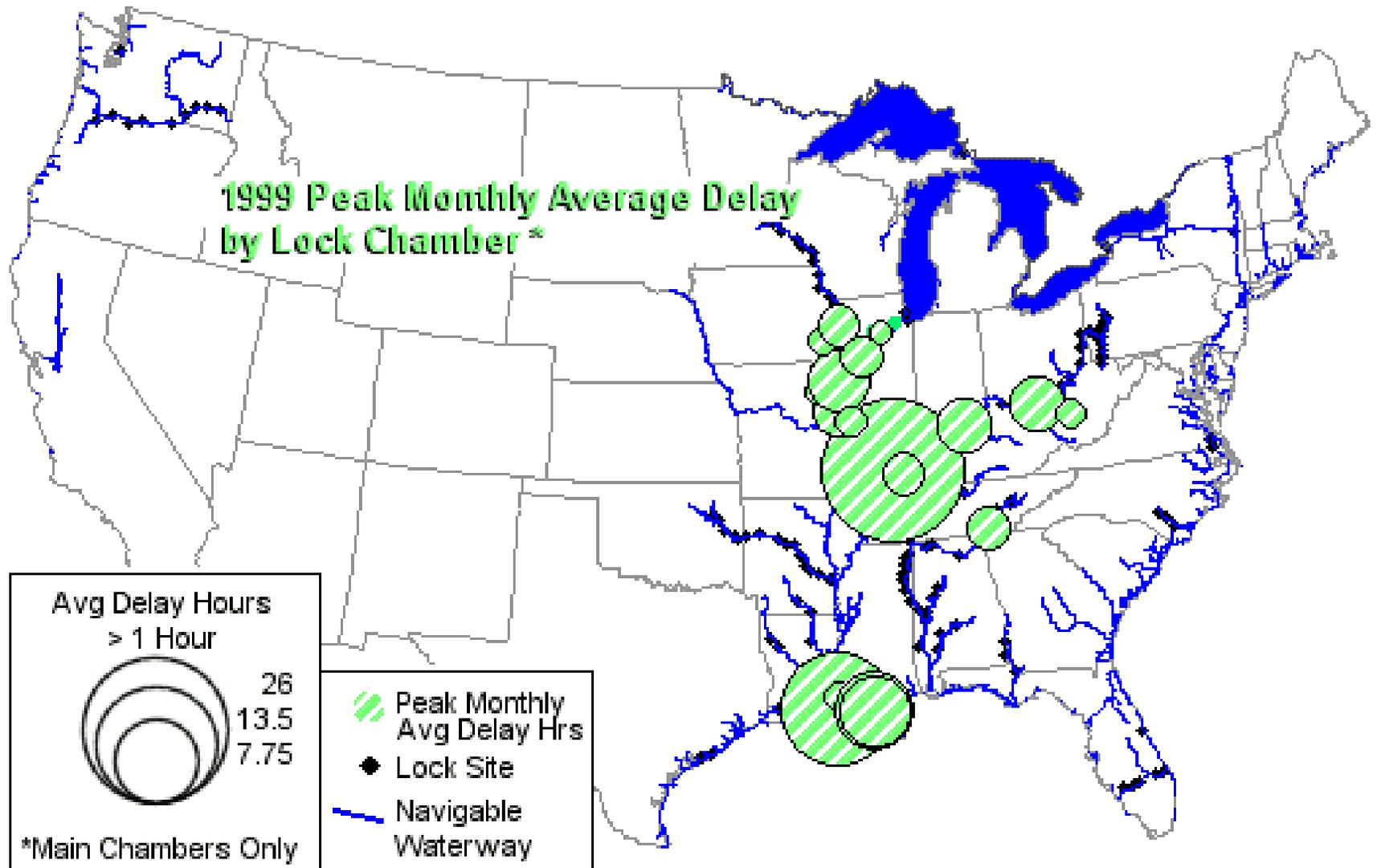


*Average Hours of Delay
at Locks
Per Tow, 1990 - 99*

1999 Traffic as % of Estimated Capacity
Over 75% Under 75%

Animated Display of Average Lock Delay

Greater Than 1 Hour Delay





Funding Sources for Corps Navigation Expenditures

Harbors

O&M	Federal Government	0%
	Harbor Maintenance TF	100%
Construction	Federal Government	40-80%
	Project Sponsors	20-60%

Inland Waterways

O&M	Federal Government	100%
Construction	Federal Government	50%
	Inland Waterways TF	50%



Navigational Activities

FY 2001 Civil Works Budget (\$ Millions)

Navigation Studies	\$14
Preconstruction Eng. & Design*	14
R&D, etc.	13
Inland Construction*	175
Coastal Harbor Construction*	285
Other Construction	11
Inland Waterway Operation & Maint.	475
Coastal Harbor O&M*	665
Gen. Expenses	<u>64</u>
Total in Civil Works Appropriation	\$1,716

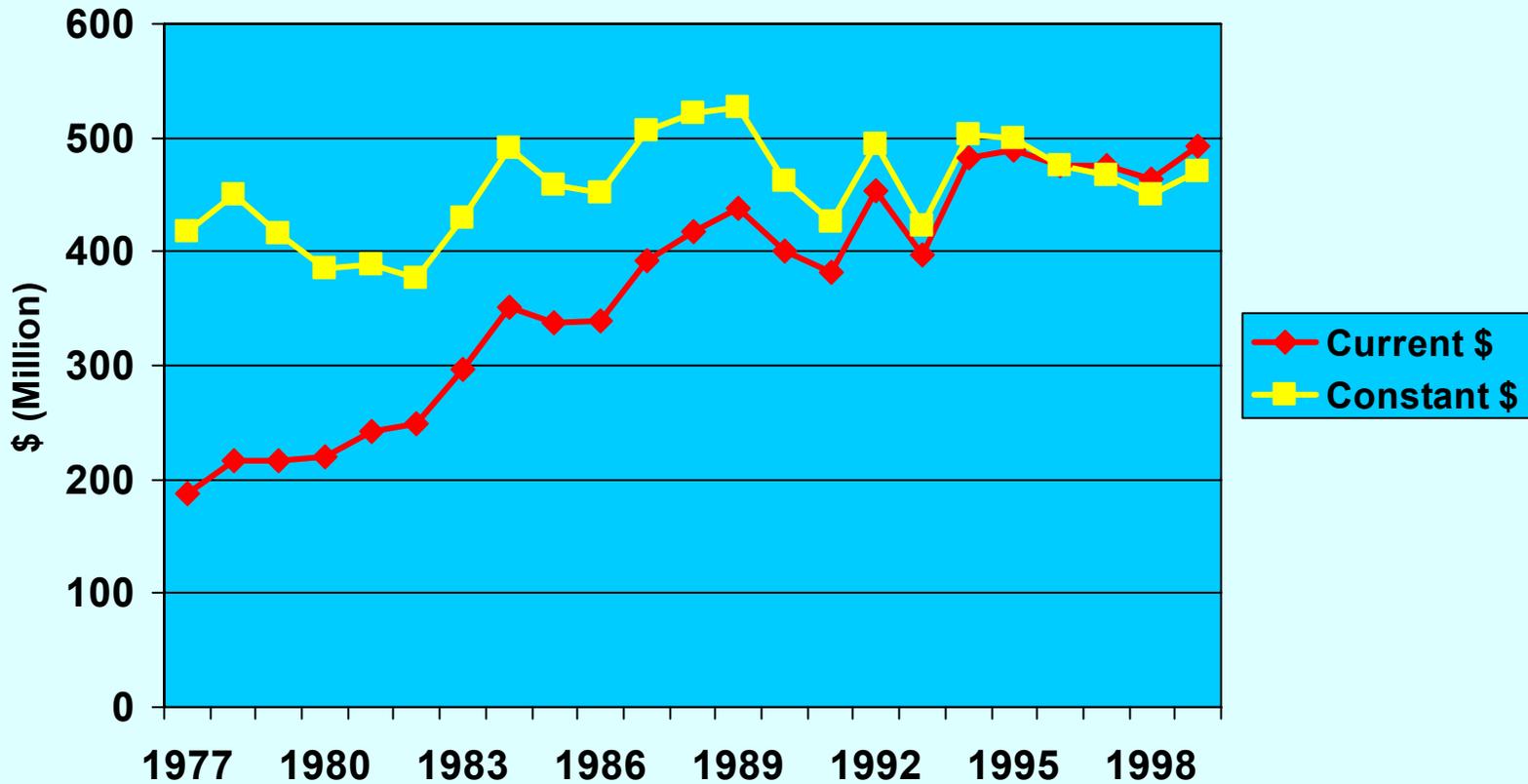
***Cost-Shared Activities**

(sponsor contributions not included except IWTF)



Inland Waterway O&M Expenditures, 1977-99

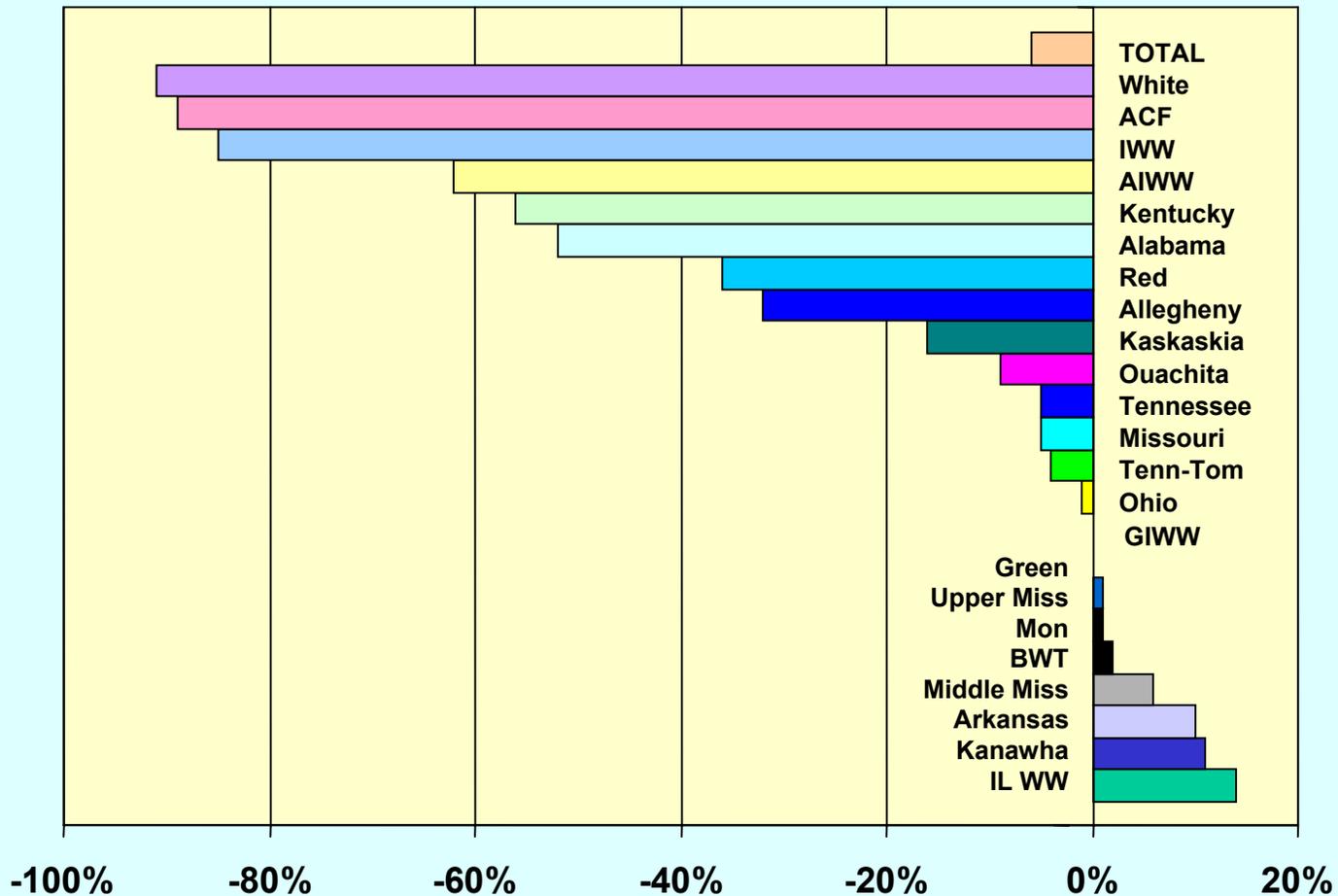
Current \$ and 1996 Constant \$ *



* Fuel-Taxed Waterways Only



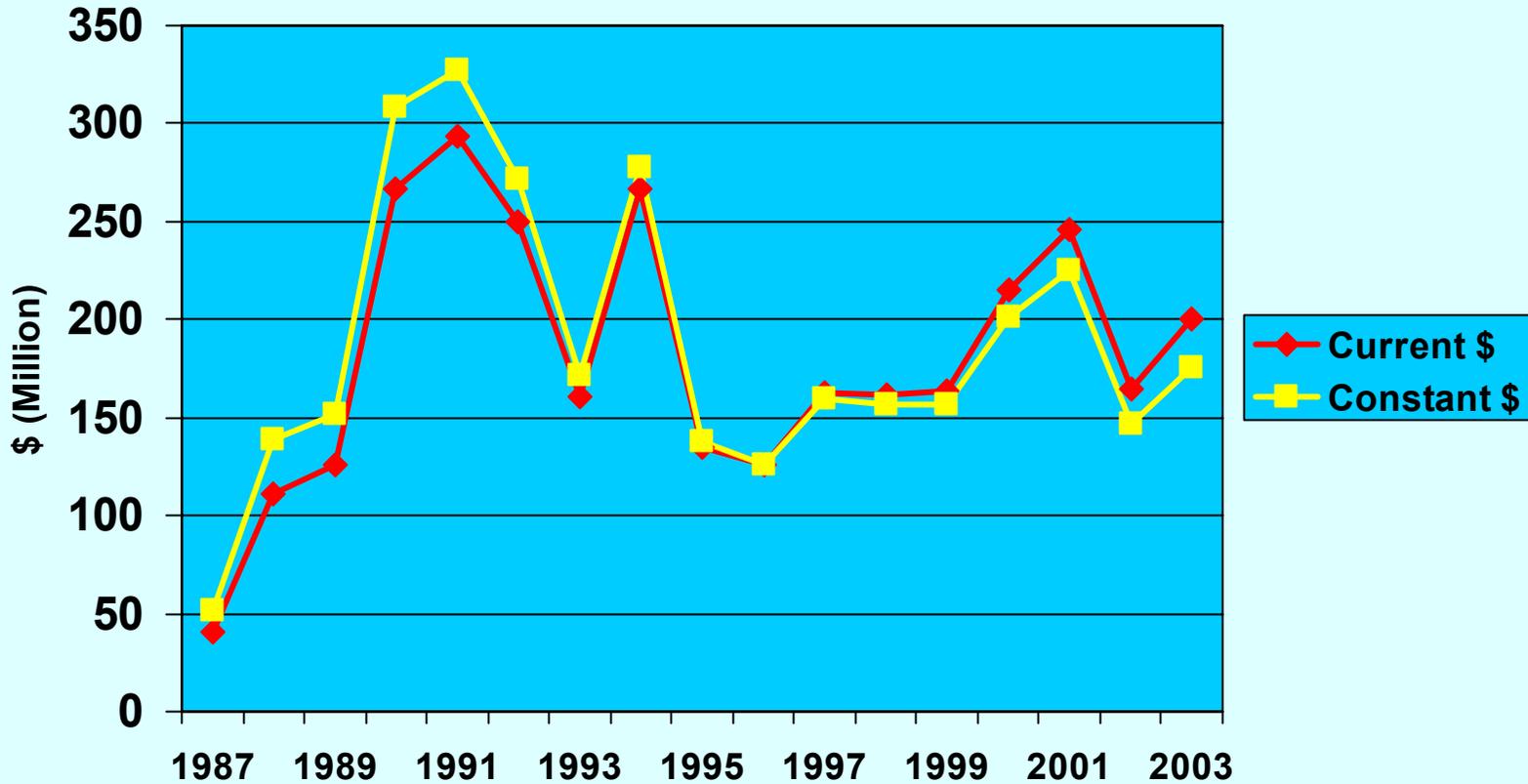
Percent Change in O&M: FY 02 vs. FY 03 Budget Request





Inland Waterway Construction Expenditures, 1987-2003*

Current \$ and 1996 Constant \$



*Total for projects cost-shared with IWTF only. Budget request for 2003.



Inland Waterways Trust Fund

Legislative Background

- **Inland Waterways Revenue Act of 1978**
- **Water Resources Development Act of 1986**
- **WRDAs 88, 90, 92, 96, 99, 2000**
- ***WRDA 2002?***





Inland Waterways Trust Fund

Current Status: End FY 2001

- **Starting Balance: \$387.8 Million**
- **Revenues: \$112.7 Million**
- **Interest: \$20.9 Million**
- **Outlays: \$110.24 Million**
- **Ending Balance: \$411.2 Million**
- **Challenge: Growing Balance**

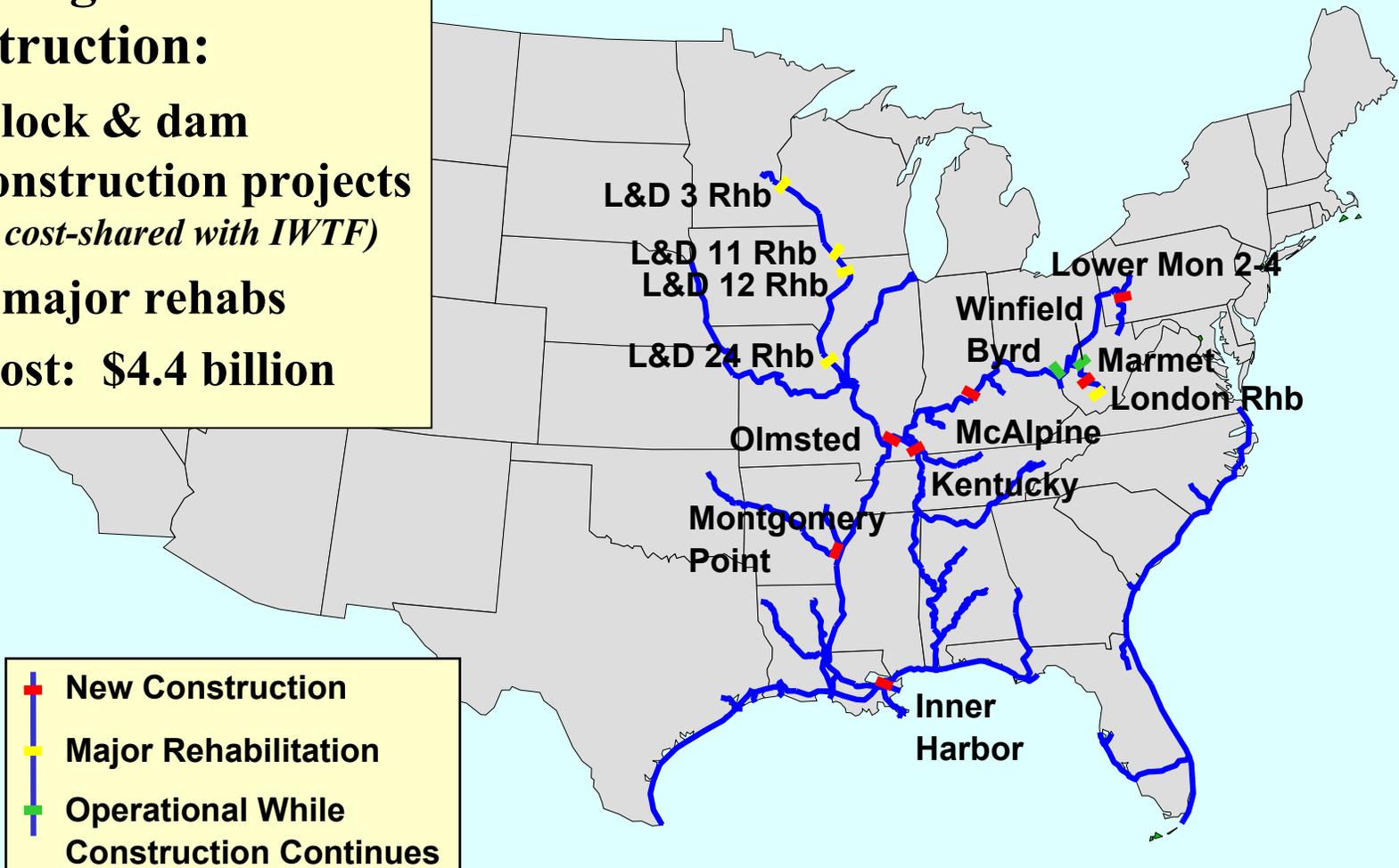




Action: Inland Waterway Construction Projects Underway

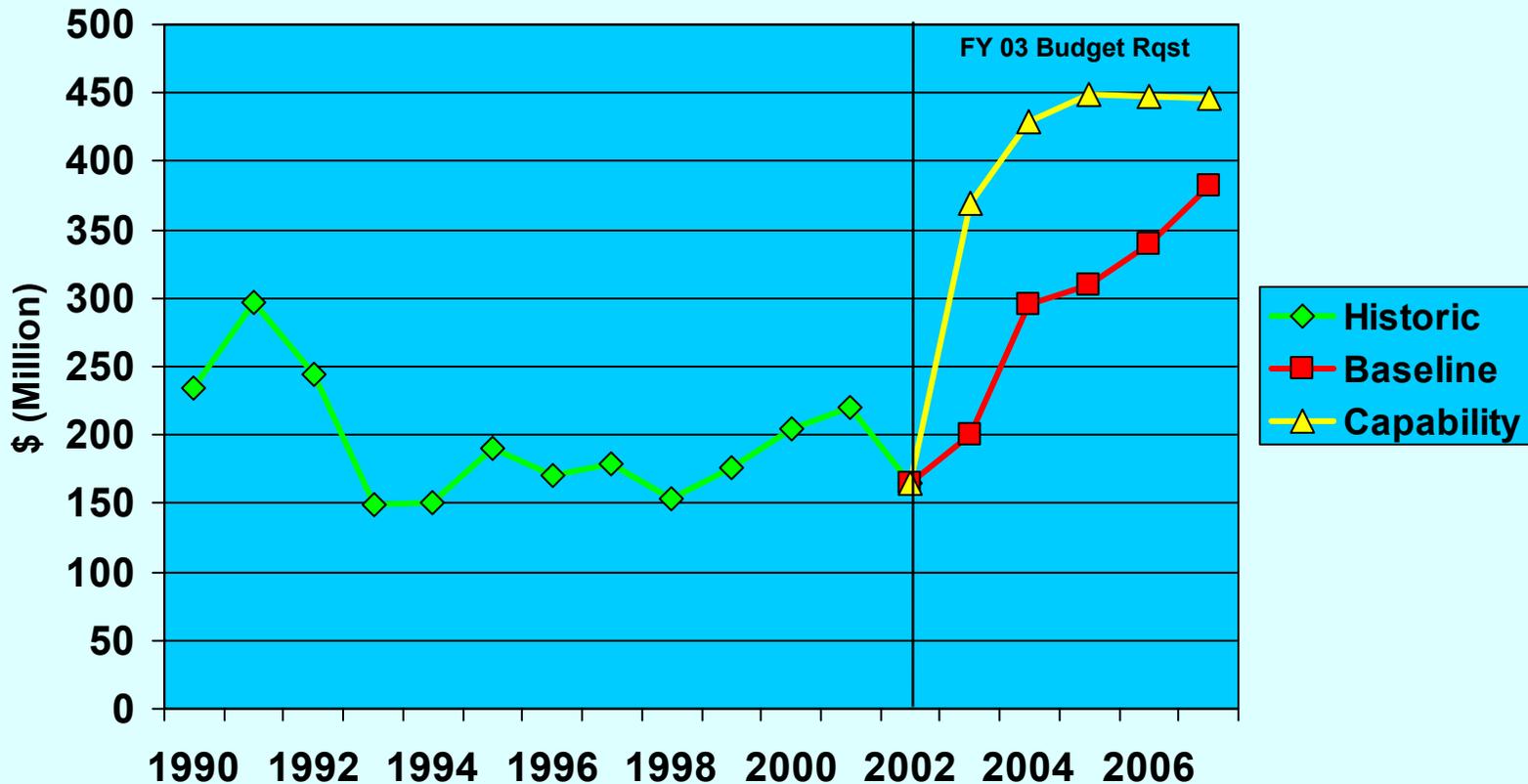
■ Ongoing construction:

- 9 lock & dam construction projects (8 cost-shared with IWTF)
- 5 major rehabs
- Cost: \$4.4 billion





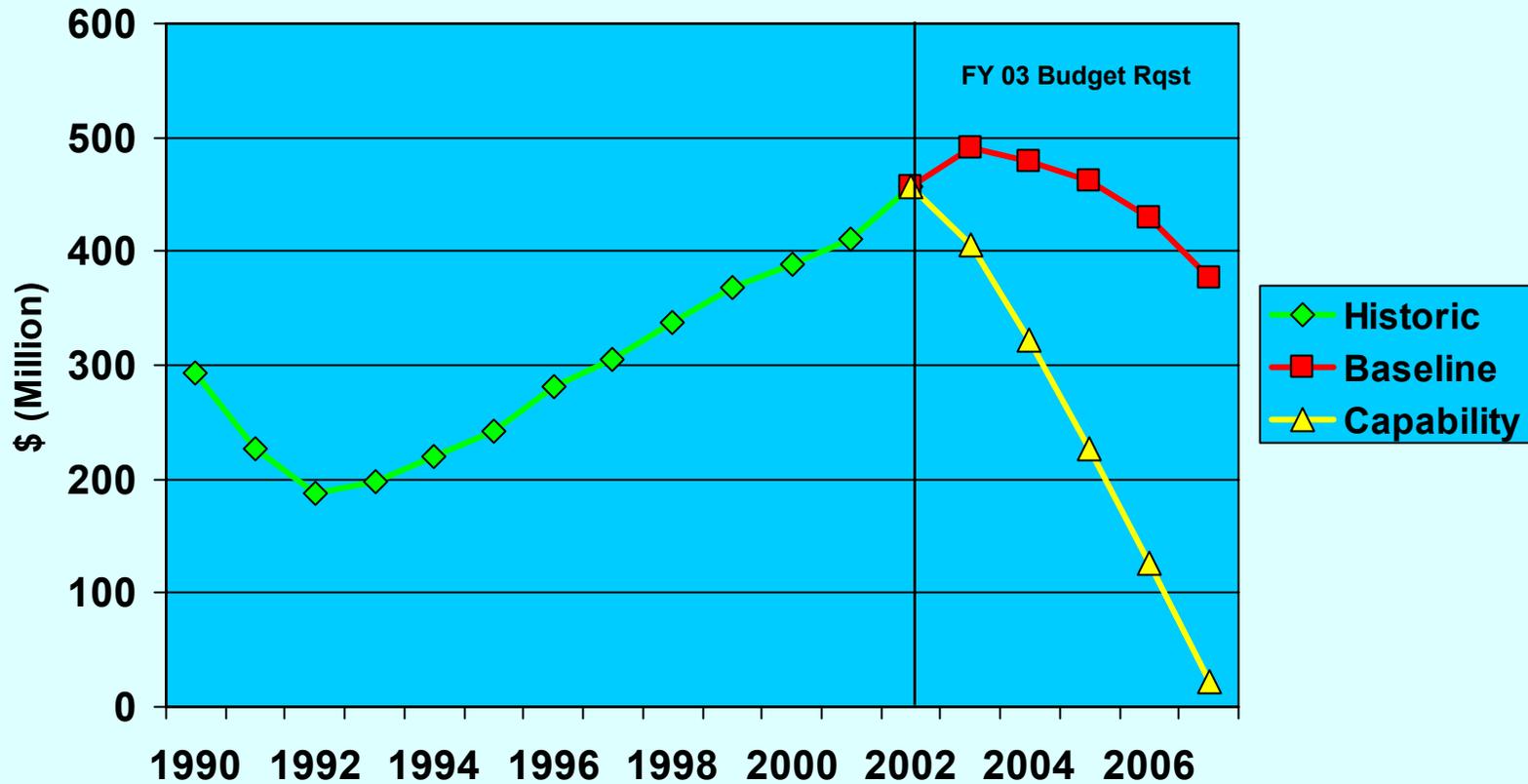
Funding for Lock & Dam Construction Cost-Shared with IWTF: 1990 - 2004





IWTF Balance

Based on Baseline and Capability Outlays: 1990 - 2007





Future Needs: Major Inland Navigation Studies

Several major studies of inland navigation needs to and beyond 2020:

- Ohio River: 600-ft lock extensions at Greenup and Myers authorized
- Upper Miss / IL Wwy: Possibly 7 new locks or extensions
- GIWW: New locks at Bayou Sorrel & Calcasieu
- Chickamauga Lock
- GIWW and AIWW channel improvements
- Arkansas River





Inland Waterway Challenges



- **Critical to the U.S. economy**
- **Aging infrastructure in need of modernization**
 - Growing delays and associated costs
 - Costs to industry over \$155 million annually
- **Growing competition for discretionary portion of Federal Budget**
- **Growing balance in the Inland Waterways Trust Fund**
- **Limited options**
 - Inland Waterways Users Board investment priorities
 - Obtain increased budget priority for waterway investments
 - Others?