

**Revenue Options for the  
Inland Waterways Trust Fund  
Inland Nav CoP Workshop**

**Inland Waterways Trust Fund  
Status and Trend Analysis**

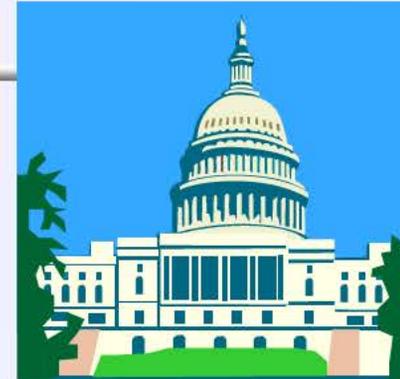
**September 19, 2007  
Louisville, KY**





# *Inland Waterways Trust Fund*

## *Legislative Background*



- **Inland Waterways Revenue Act of 1978**
  - Created fuel tax at 4 cents per gallon
  - Designated 26 shallow draft waterways on which the tax would apply (27 with WRDA 86)
- **Water Resources Development Act of 1986**
  - Established Users Board
  - Authorized expenditures from fund for 8 lock & dam projects
  - **Precedent for 50/50 cost-sharing**
  - Increase tax to 20 cents by 1995
- **WRDAs 88, 90, 92, 96, 99, 2000, E&W Approp 03**
  - Criteria for “major rehab” and “modernization”
  - Added 8 new locks, 9 major rehabs, 1 protective coastal barrier
  - PED for 1200-ft chambers at 5 Upper Miss and 2 Illinois locks

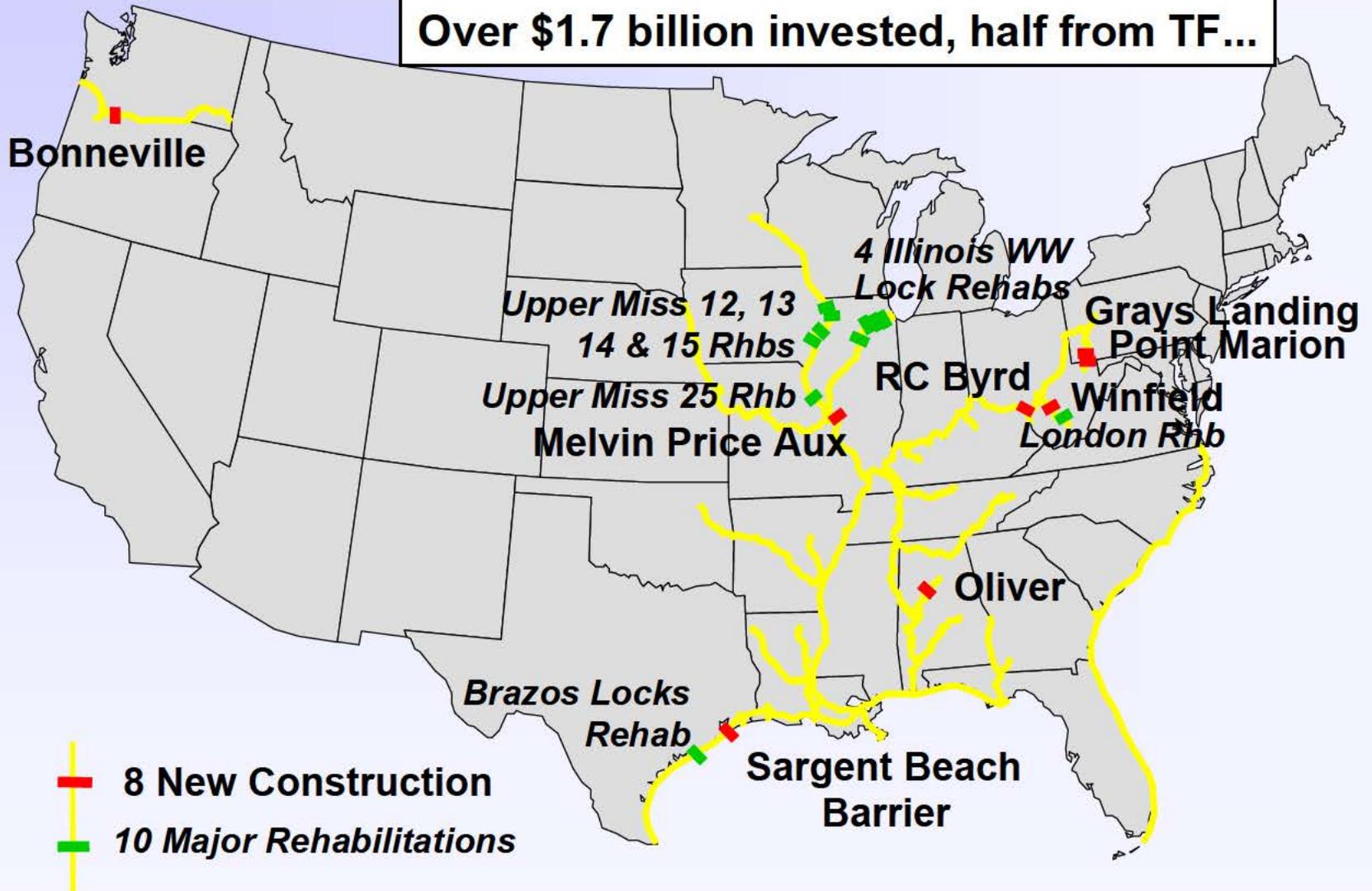


# Major Navigation Projects Operational

Cost-Shared with Trust Fund

As of 2007

Over \$1.7 billion invested, half from TF...





# Major Navigation Projects Underway

Cost-Shared with Trust Fund

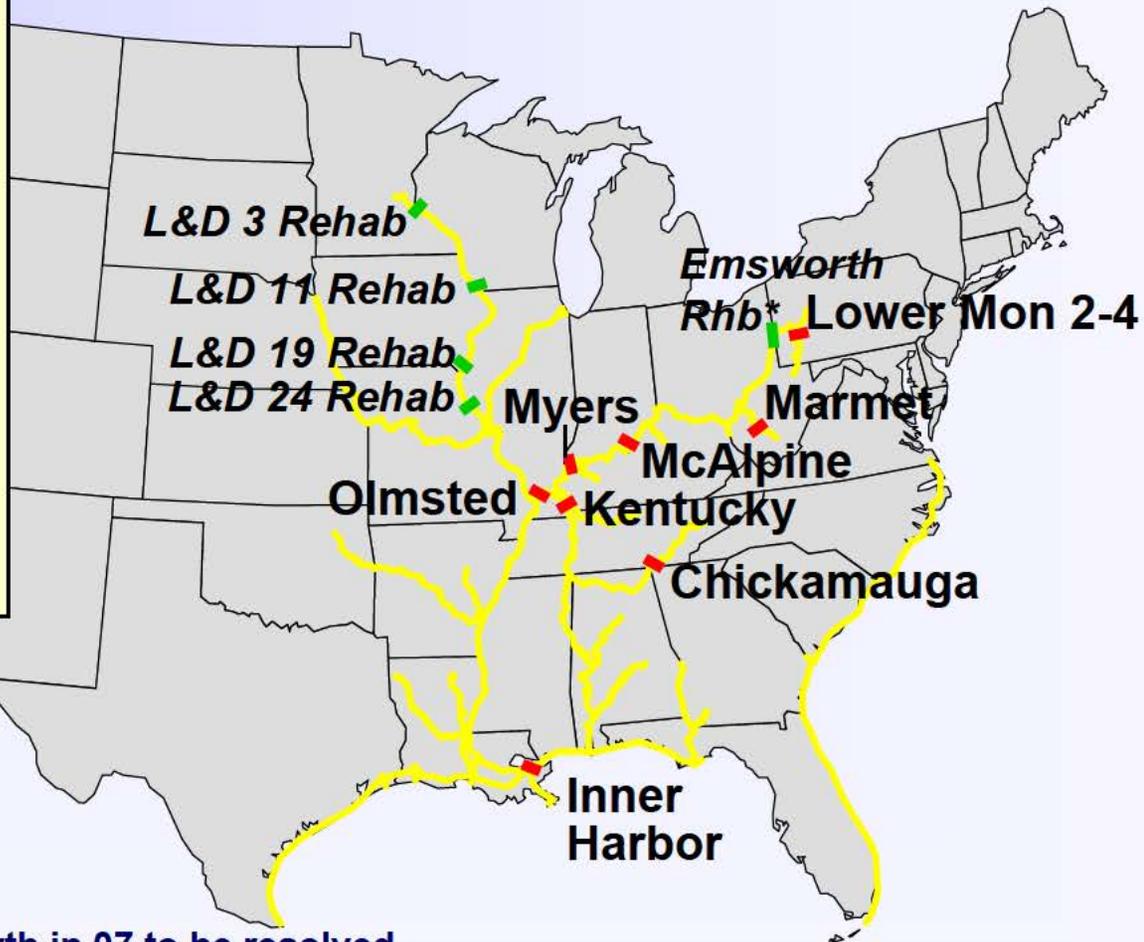
As of 2007

Active new lock construction and major rehabilitation program underway in FY '07:

- 8 new or replacement locks
- 5 major rehabs
- \$414 million in funding
- Total investment underway of \$5.6 billion

 New Construction

 Major Rehabilitation

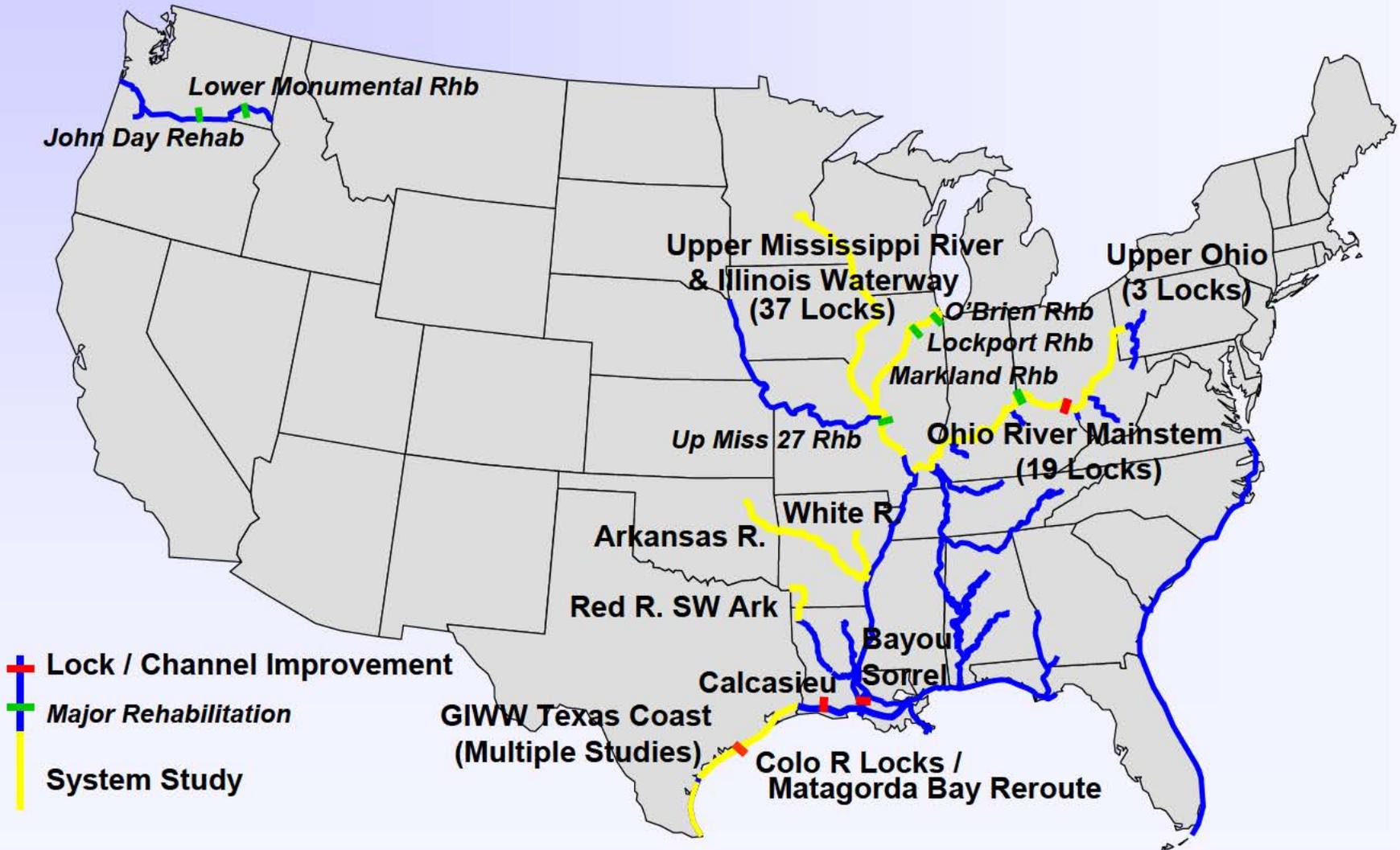


\*Trust Fund Cost-sharing for Emsworth in 07 to be resolved.



# Major Inland Navigation Studies

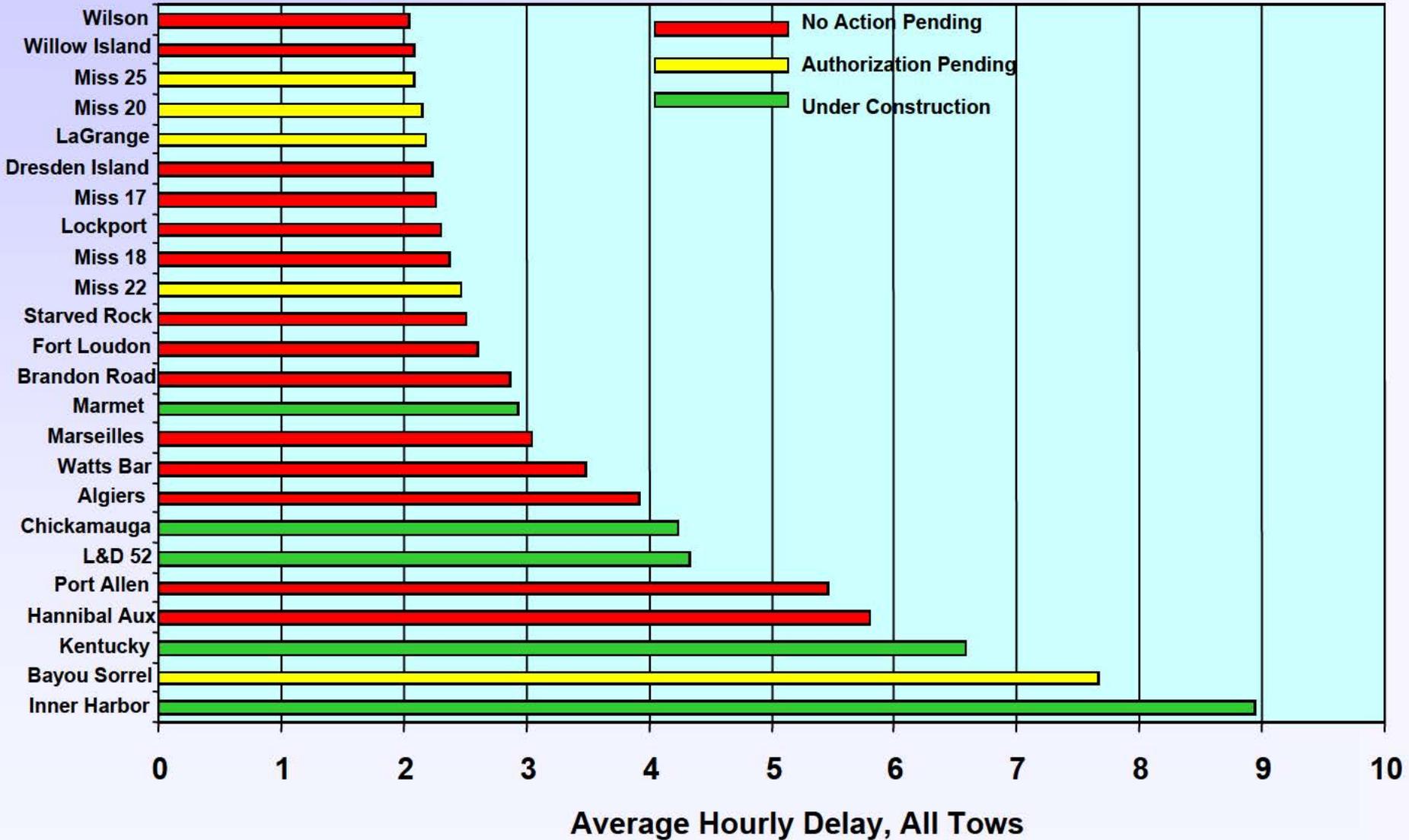
Potentially Leading to Projects Cost-Shared from IWTF  
2007





# Challenge: The Cost of Lock Congestion and Delays

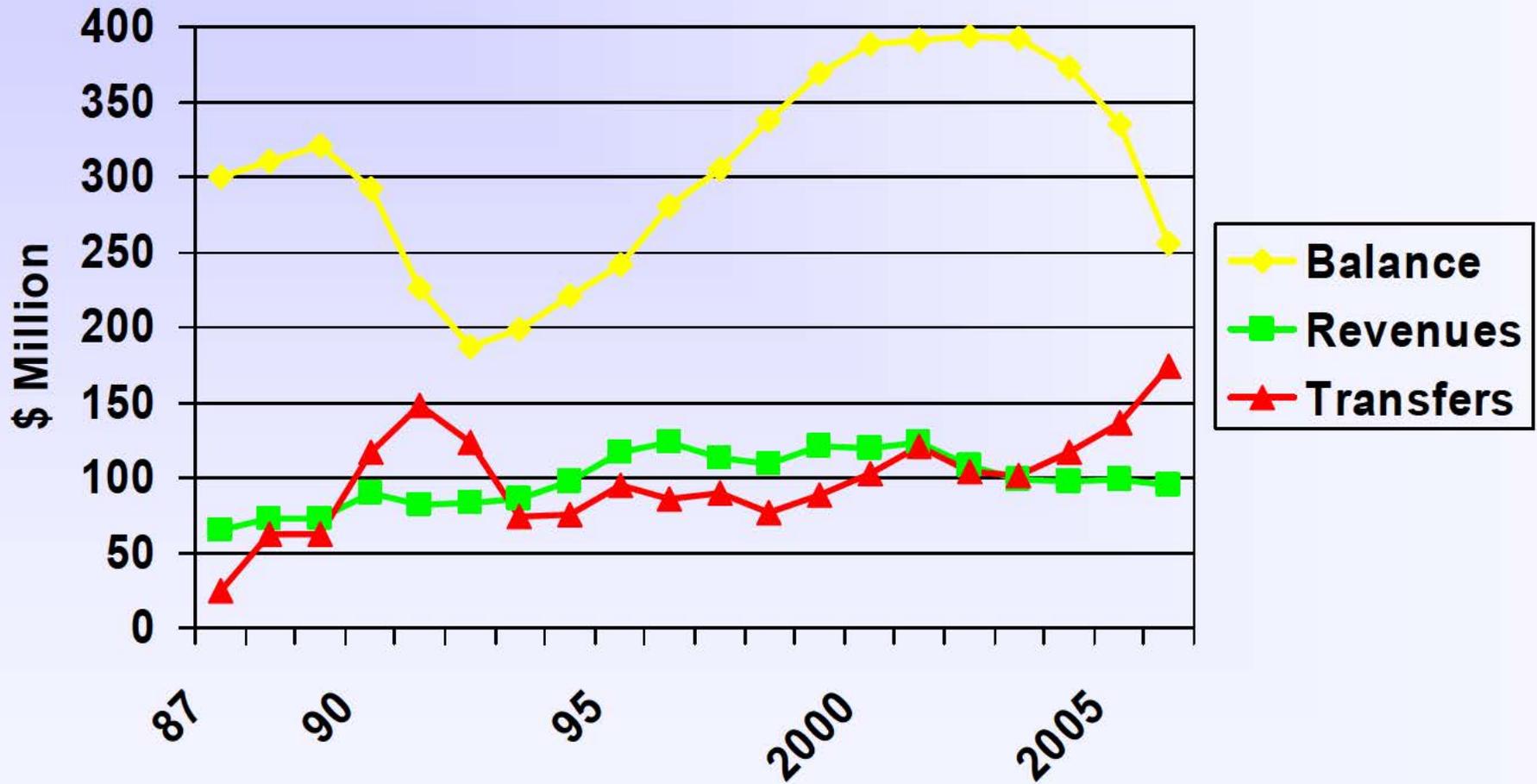
## Average Hourly Delays, All Tows, 2005





# *Inland Waterways Trust Fund*

## *1987 - 2006*





## *Declining Revenues*

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- **Trust Fund revenues have been flat or declining since 2001**
  - Industry consolidation
  - Less long-haul grain traffic
  - More efficient technology
  - Fewer empty moves, deeper-draft barges
- **Trust Fund “purchasing power” declining since tax peaked at 20 cents in 1995**
  - Revenues tied only to fuel consumption
  - Buying power goes down over time with inflation
  - To have 1995 purchasing power today would be a tax around 27-29 cents.





# ***Inland Waterways Trust Fund Status***

***End FY 06, Jul 07, and Outlook thru 08\****

- **Starting 06 Balance: \$ 322.8 Million\***
- **Revenues: \$ 80.8 Million**
- **Interest: \$ 9.4 Million**
- **Outlays: \$ 175.1 Million**
- **End FY 06 Balance: \$ 237 Million\***
- **FY 07 Appropriations: \$ 209 Million**
- **Projected Ending 07 Balance: \$ 124 Million\***
- **FY 08 Budget Request: \$ 211 Million**
- **Projected Ending 08 Balance: \$ 11 Million\***
- ***As of July 31, 2007, \$116m available transfer authority and \$107 in Net Assets***



**\*Net Assets Less Liabilities as defined in Budget Reconciliation Statements for FY05 and FY06**



## Appendix B – Benefits Foregone

### Inland Waterway New Construction Projects Benefits Foregone Attributable to Constrained Project Schedules, Adjusted for FY 2008 Budget Request

Project	Initial Optimum Schedule Completion Date	FY 08 Capability Schedule Completion Date	FY 08 Constrained Schedule Completion Date	Average Annual Benefits (1) (Million FY 06 \$)	Schedule Change Initial Optimum vs FY 08 Capability Sched. (Years)	Estimated Benefits Not Recoverable (Million FY 06 \$)	Schedule Change FY 08 Capability Sched. vs FY 08 Constrained Sched. (Years)	Estimated Benefits Foregone (Million FY 06 \$)	Total Benefits Foregone w/ FY 08 Constrained Sched. (Million FY 06 \$)
Lower Mon 2-4	2004	2012	2012	\$174	8	\$1,110	0	\$ -	\$1,110
Marmet	2007	2009	2009	\$79	2	\$124	0	\$ -	\$124
Olmsted	2006	2014	2015	\$743	8	\$4,527	1	\$ -	\$4,527
McAlpine	2002	2009	2009	\$56	7	\$313	0	\$ -	\$313
Kentucky	2008	2015	2019	\$71	7	\$311	4	\$122	\$433
Inner Harbor	2009	2015	2022	\$110	6	\$483	7	\$548	\$1,031
Greenup	2008	2014	2021	\$28	6	\$108	7	\$81	\$189
Myers	2008	2014	2023	\$19	6	\$74	9	\$67	\$141
Chickamauga	2010	2012	2012	\$2	2	\$3	0	\$9	\$11
<b>TOTAL</b>					<b>52</b>	<b>\$7,052</b>	<b>28</b>	<b>\$827</b>	<b>\$7,878</b>

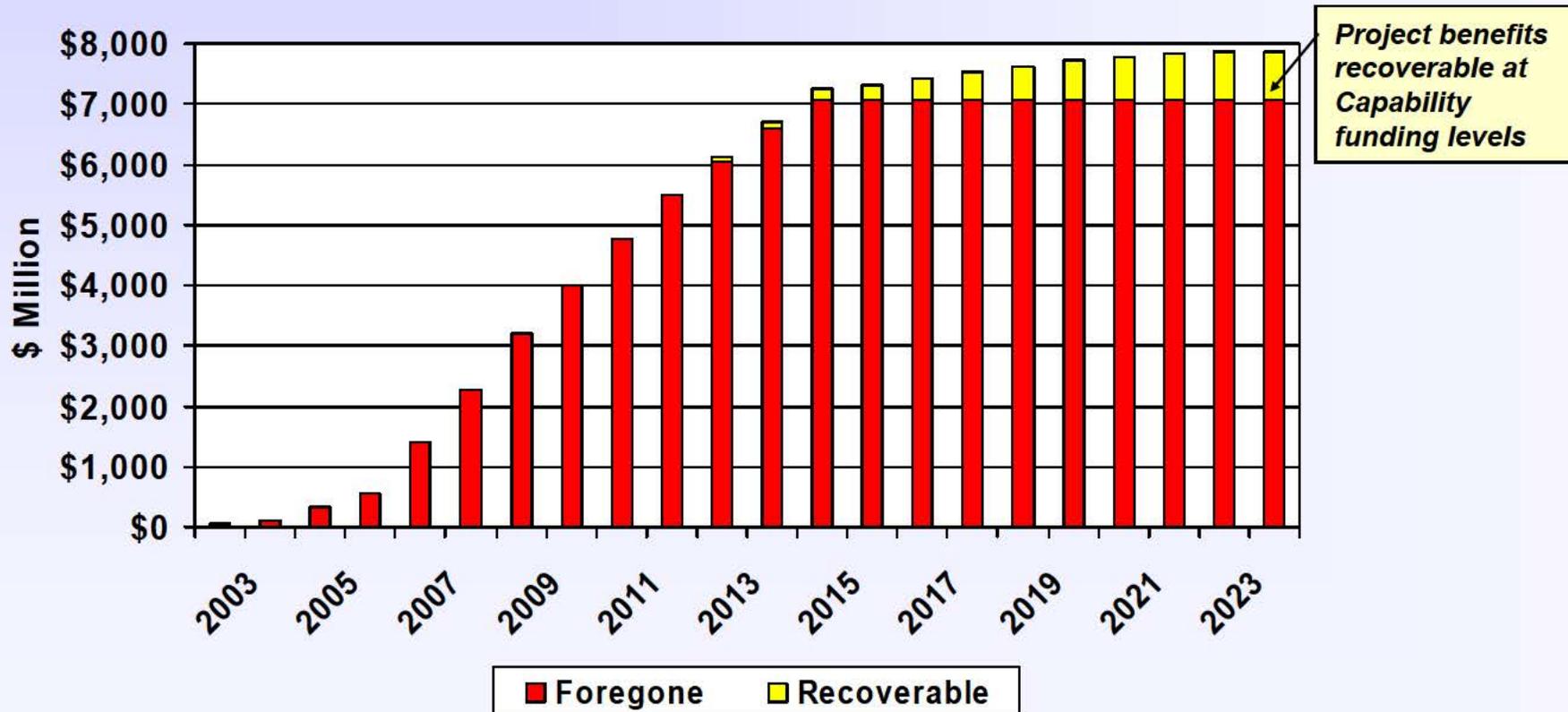
(1) Average Annual Benefits based on FY 2008 Pres Budget

(2) Benefits foregone estimated from net present value of benefits discounted at 7% in each year of delay, based on 50-year project life, and adjusted to FY 2006 base year.



# Cumulative Economic Benefits Foregone from Construction Delays

**Constrained funding has led to delays in project completions, foregoing anticipated project benefits. Cumulative benefits that can no longer be recovered now exceed \$7 billion...**



Projects Underway Using IWTF (000)	FY 06 Enacted	FY 07 WP	FY 08 Request	FY 08 for Analysis
R.C. Byrd	905	1,789	1,000	1,000
Chickamauga	9,900	27,000	35,200	35,200
Greenup	0		0	0
Inner Harbor	11,138	4,000	0	19,488
Kentucky	22,770	20,144	52,000	52,000
Marmet	72,765	65,300	25,000	25,000
McAlpine	69,300	70,000	45,000	45,000
Lower Mon 2-4	50,292	62,772	70,300	70,300
J.T. Myers	693	0	0	0
Olmsted	89,100	110,000	104,000	104,000
Winfield	2,376	5,000	0	0
Upper Miss 3 Rhb	1,485	500	0	0
Upper Miss 11 Rhb	7,504	23,020	6,300	6,300
Upper Miss 19 Rhb	17,327	6,271	698	698
Upper Miss 24 Rhb	4,257	1,454	340	340
Upper Miss 27 Rhb	0	0	7,542	7,542
Emsworth Rhb	14,850	17,000	43,000	43,000
Lockport Rhb	0	0	20,445	20,445
Markland Rhb	0	0	7,800	7,800
Total	374,662	414,250	418,625	438,113



**WRDA**  
**'07 ?**

~~'02~~ ~~'03~~ ~~'04~~ ~~'05~~ ~~'06~~



- Civil Works projects usually authorized in Water Resources Development Acts (WRDAs)
- No WRDA has passed Congress since 2000
- WRDA 2007 Conference Report passed full House (381-40).
- Administration has threatened <sup>to</sup> veto, but Senate expected to approve by wide margin.
- WRDA provisions include new inland and intracoastal waterway improvements (*cost share 50/50 from IWTF*):
  - Upper Mississippi River-Illinois Waterway (7 locks)
  - Bayou Sorrel
  - Matagorda Bay TX channel realignment
  - Gulf Intracoastal Waterway: High Is to Brazos channel improvements

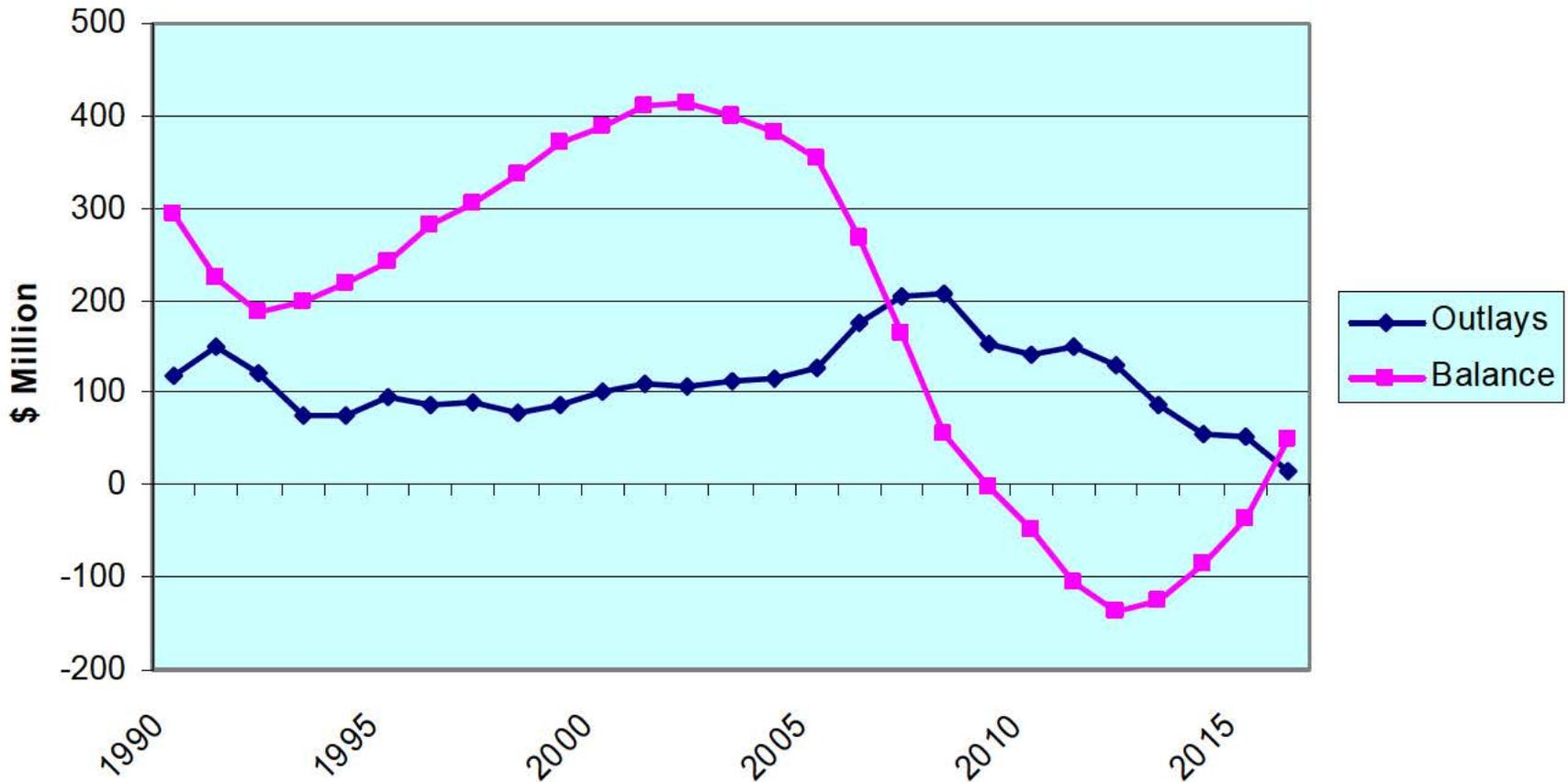


# ***Anticipated Trust Fund Shortfall***

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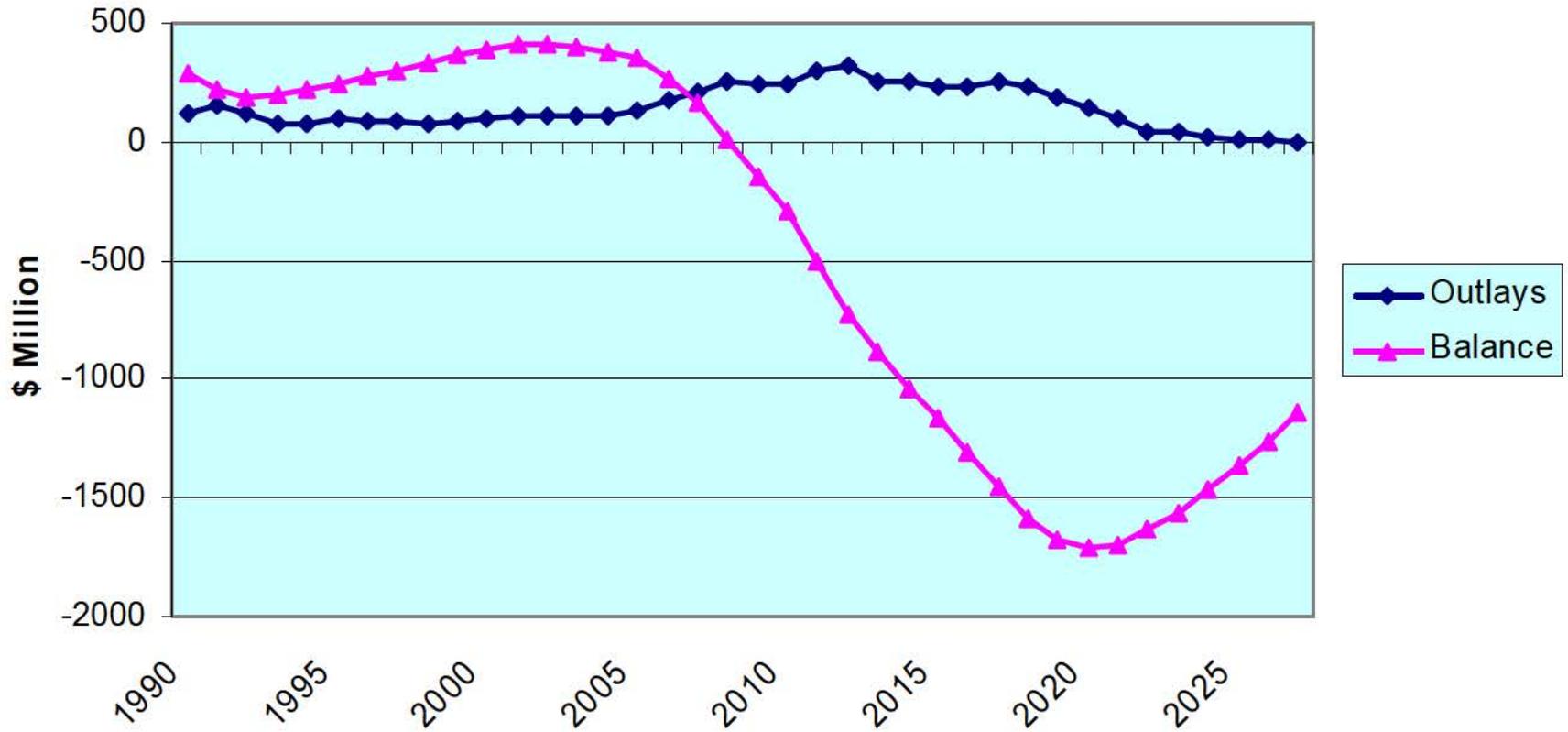
- **Under FY 08 President's Budget Request and 10-year Program Outlook**
  - **Baseline (budget guidance ceilings) would fund Olmsted, McAlpine, Marmet, Lower Mon 2-4, Chickamauga and urgent major rehabs at or near "capability" levels**
  - **Inner Harbor, Myers, Greenup not funded**
  - **Kentucky not funded after 08 and no new starts**
  - **Revenues would need to approach \$130 million annually to sustain**
  
- **Under "Capability" program for ongoing, authorized or PED projects likely to result in construction**
  - **All ongoing construction continues, plus Myers and Greenup**
  - **Future major rehabs accommodated on schedule**
  - **Upper Miss and Illinois Waterway expansions**
  - **Bayou Sorrel, other GIWW projects, and E-D-M (Upper Ohio)**
  - **Revenues would need to range between \$180 – 230 million annually to sustain through 2020**

## IWTF Outlays and Balance, Ongoing Construction Projects Under FY08 Budget Request, Mar 07



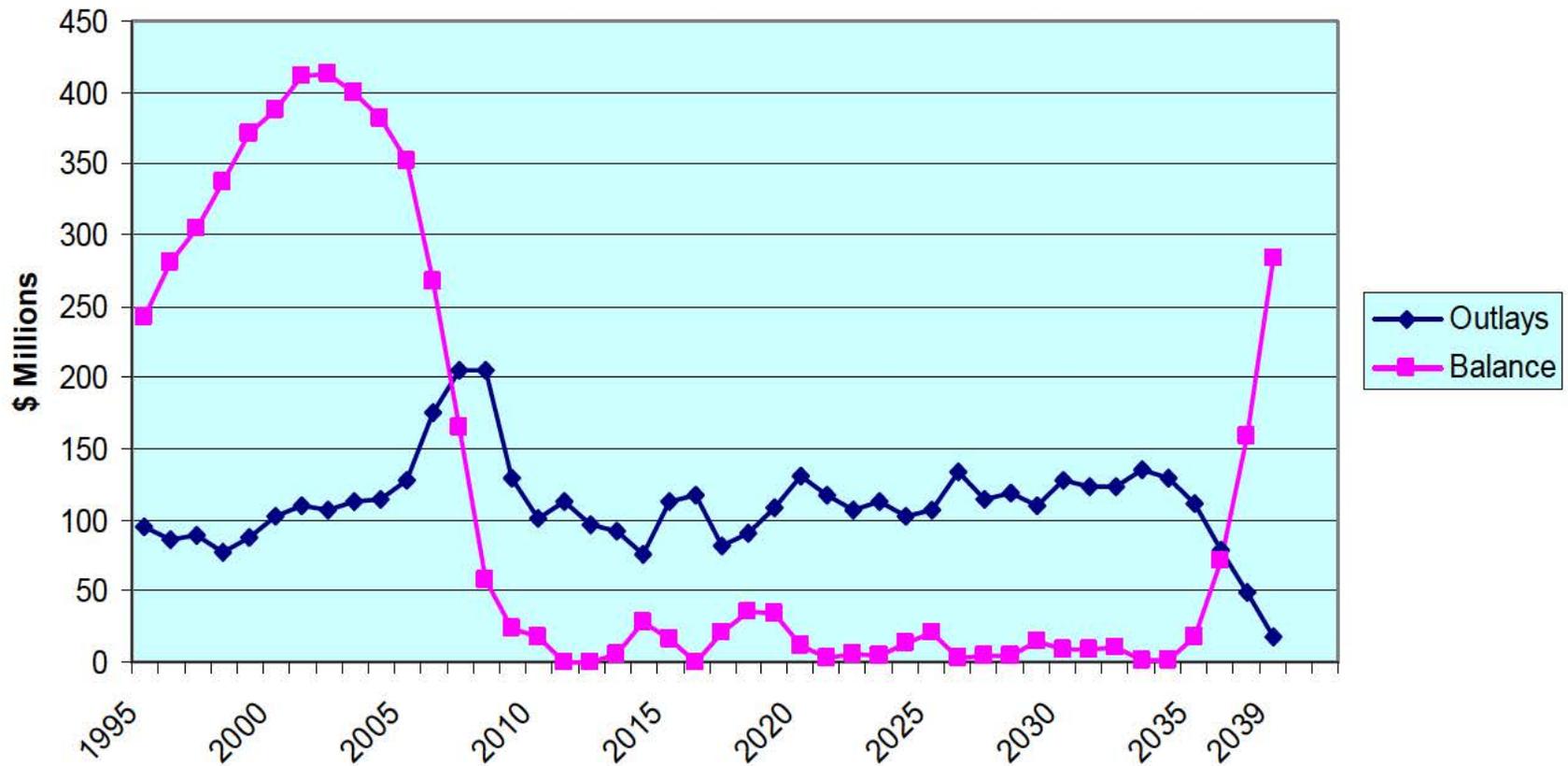
**08 Budget omits funding for Inner Harbor, JT Myers and L&D 3 Major Rehab. Funding for Kentucky discontinued after 08.**

**IWTF Balance and Outlays for Ongoing Projects FY 08  
Plus Candidate Future Projects  
No Change in Fuel Tax (Mar 07)**



**Capability program completes all ongoing projects and adds projects authorized or in PED, including Greenup, 7 Upper Miss/III Waterway locks, Bayou Sorrel, GIWW channel work and additional major rehabilitations. Program completes by 2026.**

## IWTF Outlays and Balance, Construction Schedules Adjusted to Avoid a Deficit, Mar 07



**Modified expenditures to avoid a Trust Fund deficit holds outlays to revenues. Program completion delayed to 2042.**



# *Trust Fund Options*

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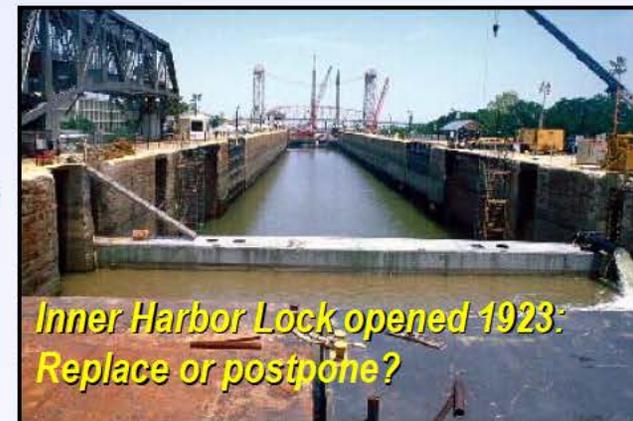
- **With Current Authority**
  - Prioritize funds for high return and nearly completed projects (Budget attempts this)
  - Spread available funds across ongoing projects (previous approach from Congress)
  - Users Board also wants Treasury to review TF receipts
- **Legislative Options**
  - Increase fuel tax (might have to double)
  - Change 50% cost-share requirement
  - Tie cost-share to originally authorized project cost
  - Users Board wants to consider commercial financing or bonding authority
  - Administration's budget proposal for user fee alternatives now under study



# Administration User Fee Proposal

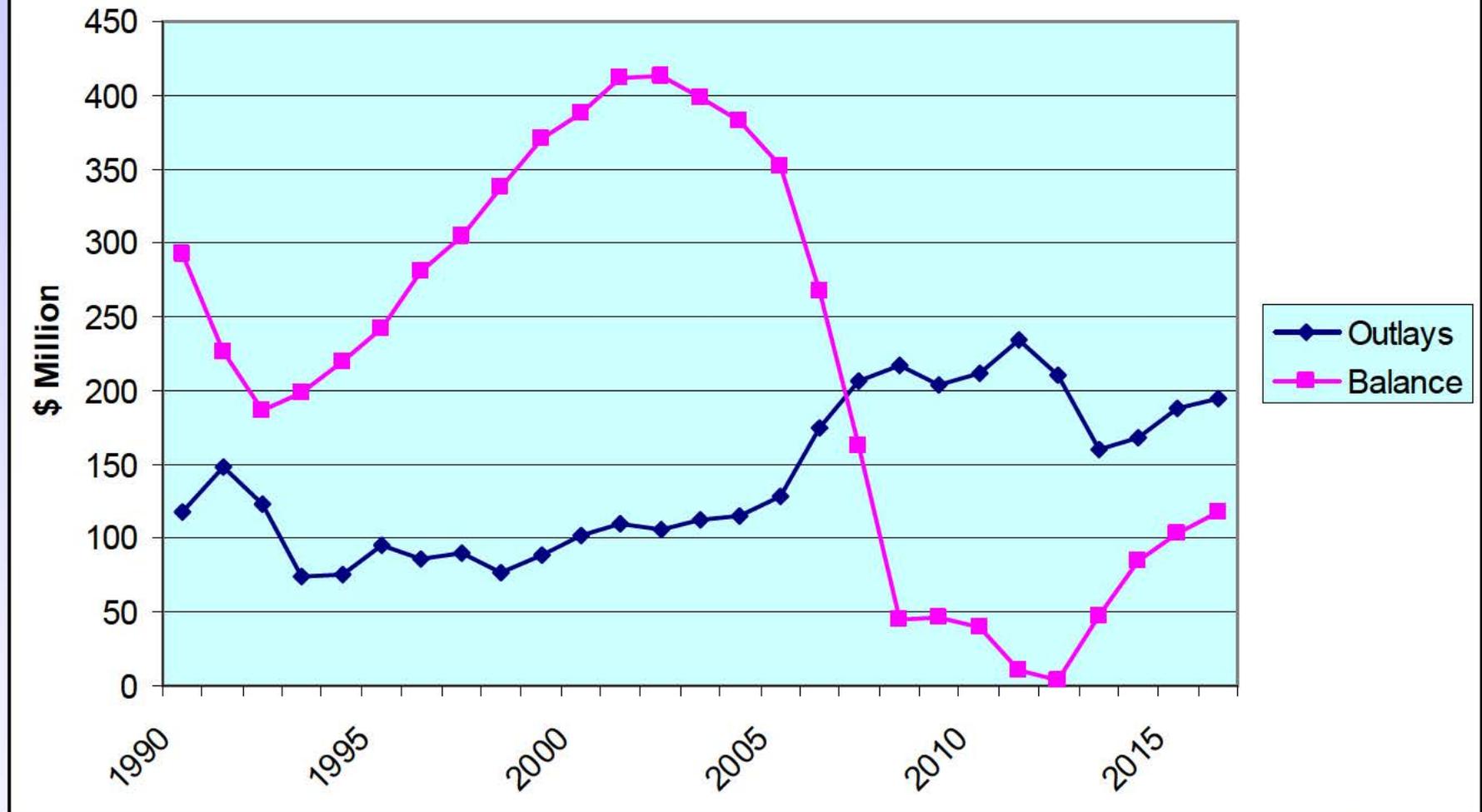


- Recognizes that Trust Fund will be depleted by 2009 at present expenditure rate
- Principal options are stop some projects or increase funds
- Administration prefers a User Fee that ties burden of capital improvements to beneficiaries
  - Analysis underway to assess options and their economic impacts
  - Impacts on individual waterways and commodities is a concern
  - Unresolved issues on who pays and how collected
- Considerations to be addressed with stakeholders
  - Impacts of a fee vs. a tax?
  - What would be fee mechanism -- a fee per barge (loaded?), and is it based on use of a lock or something else? Distance traveled?
  - Fee or tax fixed or adjustable?
  - Would funds be available system-wide or where collected?
  - Open to discussion of User Board proposal for bonding authority and how it could work
  - DCW has requested scope for a study of alternatives
- Admin will likely propose legislation to accompany 09 Budget Request



*Inner Harbor Lock opened 1923:  
Replace or postpone?*

## IWTF Outlays and Balance, Modified Capability Program With Increased IWTF Revenues Beginning in FY 09



**Increased revenues would allow completion of ongoing projects on Capability schedules and complete candidate future projects by 2031 (the last of the Upper Miss Modernization Program).**



# Possible Construction Schedules

- Complete ongoing construction on Capability schedule (*excl Myers*)
- Initiate major new projects by 2013 including Bayou Sorrel, Greenup, Upper Miss, GIWW channel improvements
- Others could quickly follow in 2014 and beyond
- Fuel tax or fee could also be reduced after 2014

Inland Waterways Trust Fund Cash Flow  
Capability Program for Current Construction Plus Candidate Future Projects  
Based on Annual Trust Fund Revenues of \$200 Million (Jun 07)  
\$ Million

Project	Start Year	End Year	Construction Duration (Years)	Total Trust Fund Draws	Total Project Cost
R Byrd	1987	2010	24	191.8	383.5
Winfield	1989	2007	19	118.2	236.3
Olmsted	1991	2015	25	767.5	1535.0
Mon 2-4	1995	2012	18	375.0	750.0
McAlpine	1996	2009	14	215.0	430.0
UM 24 Rhb	1996	2008	13	43.8	87.6
Kentucky	1996	2015	20	321.6	643.2
Marmet	1996	2009	14	200.2	400.3
UM 3 Rhb	1998	2007	10	28.6	57.2
Inner Hbr	1999	2015	17	317.0	634.1
UM 11 Rhb	2002	2008	7	19.6	39.1
Chickamauga	2003	2013	11	174.5	349.0
UM 19 Rhb	2003	2008	6	14.9	29.7
JT Myers	2006	2014	9	116.2	232.4
Emsworth Rhb	2007	2011	5	41.7	83.3
Lockport Rhb	2008	2013	6	61.7	123.4
Markland Rhb	2008	2010	3	10.0	20.0
UM 27 Rhb	2008	2012	5	20.4	40.8
Matagorda	2009	2010	2	8.7	17.3
Bayou Sorrel	2013	2013	1	4.8	9.7
Greenup	2013	2019	7	117.7	235.3
GW HI/BR	2013	2014	2	7.5	15.0
UM-IWW Sys	2013	2031	19	1091.5	2183.0
E-D-M	2014	2021	8	375.0	750.0
GW BR/PC	2014	2018	5	25.0	50.0
GW PC/CC	2014	2017	4	25.0	50.0
Hannibal Rhb	2014	2017	4	12.5	25.0
Meldahl Rhb	2014	2017	4	12.5	25.0
MK Ark R 12Ft	2014	2019	6	82.8	165.5
Calcasieu	2015	2020	6	50.0	100.0
GW Brazos	2015	2019	5	18.8	37.5
O'Brien Rhb	2015	2017	3	9.5	18.9
GW Colorado	2016	2020	5	18.8	37.5
Pike Is Rhb	2016	2019	4	12.5	25.0
UM 3 Rhb2	2016	2023	8	23.7	47.5
GW SB/HI	2017	2021	5	25.0	50.0
Newburgh Rhb	2017	2020	4	12.5	25.0
Belleville Rhb	2018	2021	4	12.5	25.0
Cannelton Rhb	2018	2021	4	12.5	25.0
Racine Rhb	2020	2023	4	12.5	25.0



# ***IWUB Annual Report 2007***

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**“The Board believes that the Inland Waterways Trust Fund could be spent more effectively. Under the present system, the Corps too often is required to execute the inland waterway construction program in a very inefficient, and occasionally wasteful, manner. For projects whose funding allocations are significantly much lower than the capability amount, the Board-observed results are delays and escalating costs. Once authorized for construction, navigation projects that should be--- and formerly were--- completed in six to 10 years now require more than 20 years to be completed. These delays are extremely expensive, adding 20 to 40 percent to or even doubling a project’s cost....**

**Chronic under funding of projects, and the consequent stretching out of the construction schedules, also postpones the benefits of the operating efficiencies that a completed project delivers .”**



# Recommendations

- Congress and the Administration should act to put in place a process which encourages award of **multi-year construction contracts**. Contracts should allow for completion of significant project segments.
- The Civil Works Program of the U.S. Army Corps of Engineers should be **restructured** to emulate the MILCON construction management process. The Military Construction Program has functioned efficiently and with significant cost savings benefits.
- Congress and the Administration should provide full **capability funding** in FY 2008 and beyond (i.e. to completion) for Inland Waterways Trust Fund projects.
- Congress and the Administration should direct appropriated funds to the **priority projects** listed in Table 1, rather than divert scarce financial resources to other authorized projects.
- Congress should strive to complete budget action by October 1 each fiscal year.



# Recommendations (cont'd)

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- Congress and the Administration should undertake an investigation to determine the feasibility of Inland Waterways Trust Fund revenues being used to **issue bonds** so projects can be fully funded at the 50/50 cost share basis without increasing taxes.
- Cost sharing for the **Lockport Pool Major Rehabilitation** project should reflect the **multi-purpose** nature of the Illinois Waterway, especially flood control and waste removal for the city of Chicago.
- Congress and the Administration should conduct an investigation to determine why there seems to be a significant **drop in Inland Waterways Trust Fund receipts** from FY 2005 to FY 2006. An informal survey by Inland Waterways Users Board members suggests that 76% of the credited receipts for FY 2006 were paid by 16 companies who were showing a year-over-year increase of 1%, rather than an overall decline of 11.5%.
- Congress and the Administration should require that **project managers be fully accountable** for scheduling, cost control, and expenditures of appropriated funds.
- Congress and the Administration should appropriate sufficient funds to provide for **operation and maintenance** of the inland waterway system and preclude catastrophic system failure as has been experienced in recent years.
- Congress and the Administration should direct the Corps of Engineers to develop a new contingency plan for **emergency response to catastrophic failures** of the inland waterway system, including a rigorous inspection program.
- Congress and the Administration should require that **payments for waterway system damages** that are now paid to the Treasury's general fund be credited to the U.S. Army Corps of Engineers civil works accounts.

An aerial photograph of a large dam with multiple spillways. The water is a light brown color, and the surrounding landscape is dark and forested. The word "Questions?" is written in large, bold, yellow letters with a blue outline, centered over the lower part of the image.

**Questions?**

<http://www.iwr.usace.army.mil>