



# Asian Carp Threat to the Ohio Basin

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**Mission:** To protect, conserve, and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities

# Asian Carp: Bighead & Silver



Bighead



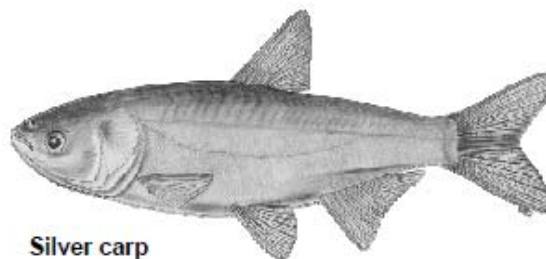
Silver

invasive species  
**watch**

[www.asiancarp.us](http://www.asiancarp.us)



Bighead carp



Silver carp

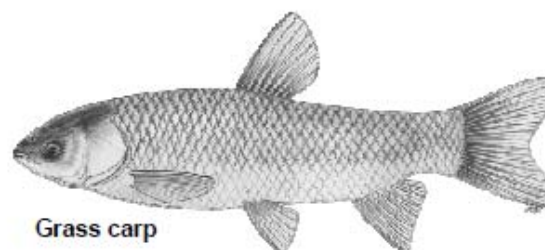
## **Management and Control Plan for Bighead, Black, Grass, and Silver Carp in the United States**

*Submitted to the Aquatic Nuisance Species Task Force  
Prepared by the Asian Carp Working Group*

**November 2007**



Black carp



Grass carp



# Asian Carp Regional Coordinating Committee

The ACRCC, with support from Federal, state, and local agencies, and private stakeholders and citizens, are creating a sustainable Asian carp control program to prevent the establishment of an Asian carp population in the Great Lakes.



# Asian Carp Threat in Illinois River

## Distances from Lake Michigan

37 miles ★ Dispersal barriers

55 miles Adult Population Front

62 miles Presence of Adults/Potential Spawning

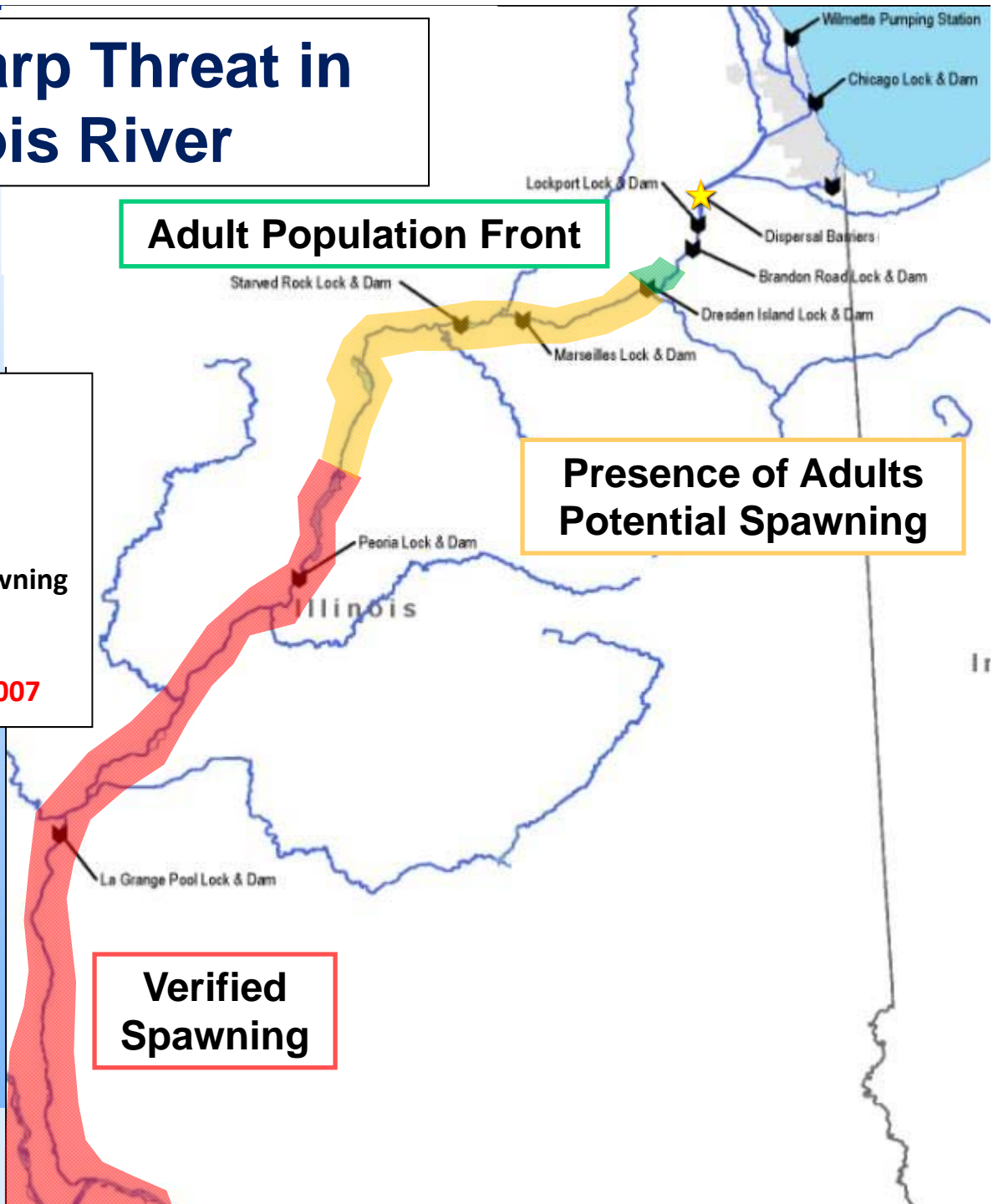
152 miles Verified Spawning

**Asian carp fronts have not advanced since 2007**

**Adult Population Front**

**Presence of Adults  
Potential Spawning**

**Verified  
Spawning**







# USGS Asian Carp Science

## Exclusion-Detection-Attraction-Removal

### Partner-Driven Science Strategy

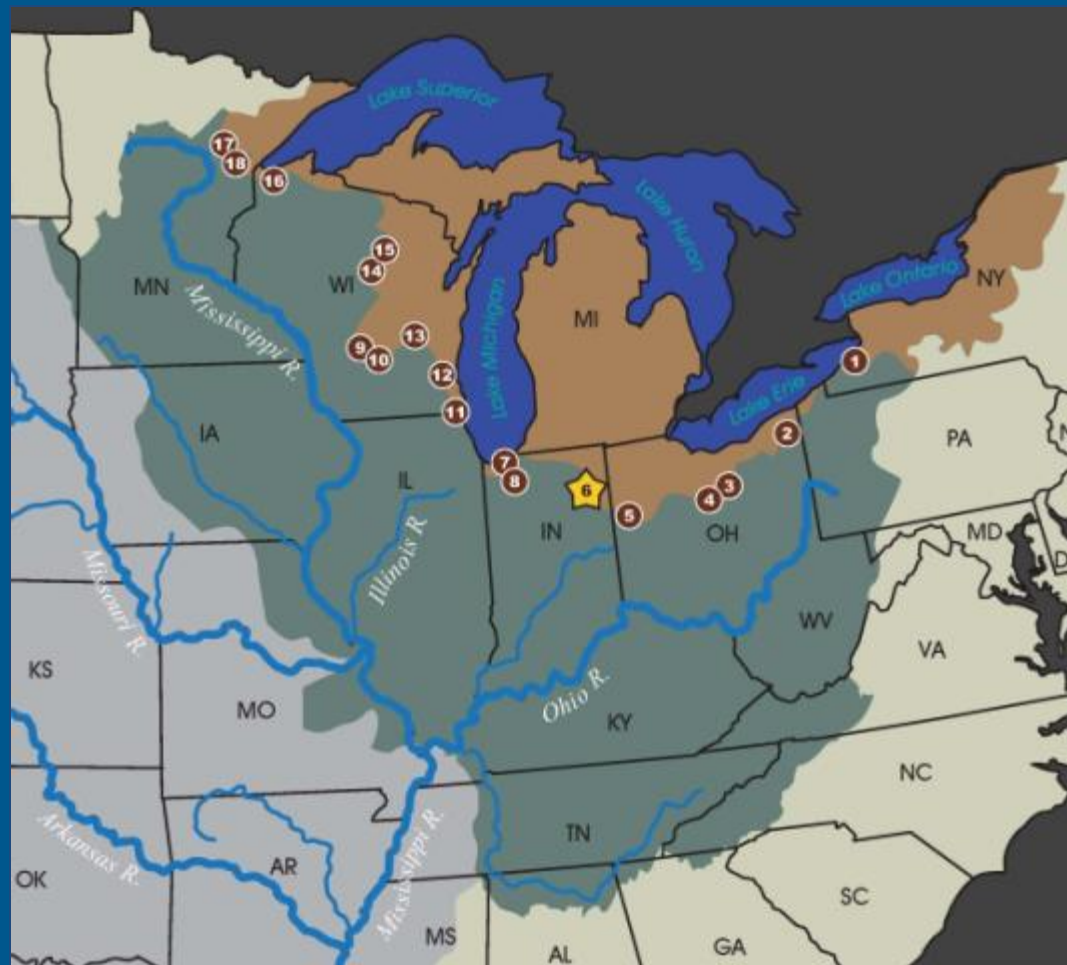
- Developing new tools and methodologies
- Working to transfer these tools to managers
- Approach can be applied to other

### Current and Future Research

- ✓ Evaluating use of water guns (sound energy waves) to deter and repel Asian carp
- ✓ Developing genetic markers and supporting USACE and FWS on eDNA activities

- ✓ Field testing *Tributary Assessment Tool* to identify potential river spawning locations
- ✓ Examining food availability in the Great Lakes
- ✓ Using pheromones to attract and “herd” Asian carp
- ✓ Expanding knowledge of Asian carp biology for control tool development and risk assessment
- ✓ Developing toxic microparticles to control Asian carp, minimizing effects on non-target species

# Great Lakes and Mississippi River Interbasin Study

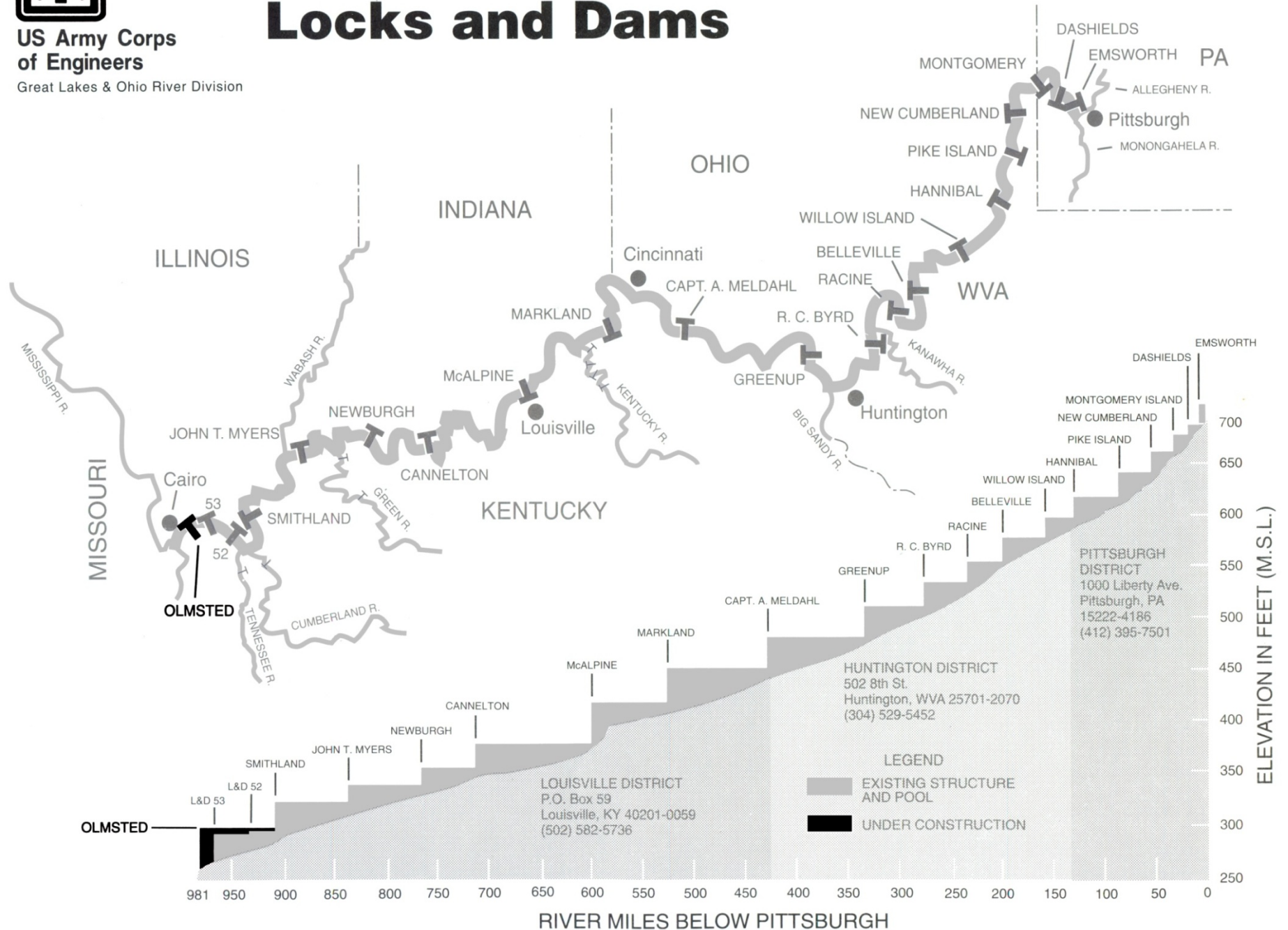




US Army Corps  
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Great Lakes & Ohio River Division

# Ohio River Mainstem Locks and Dams



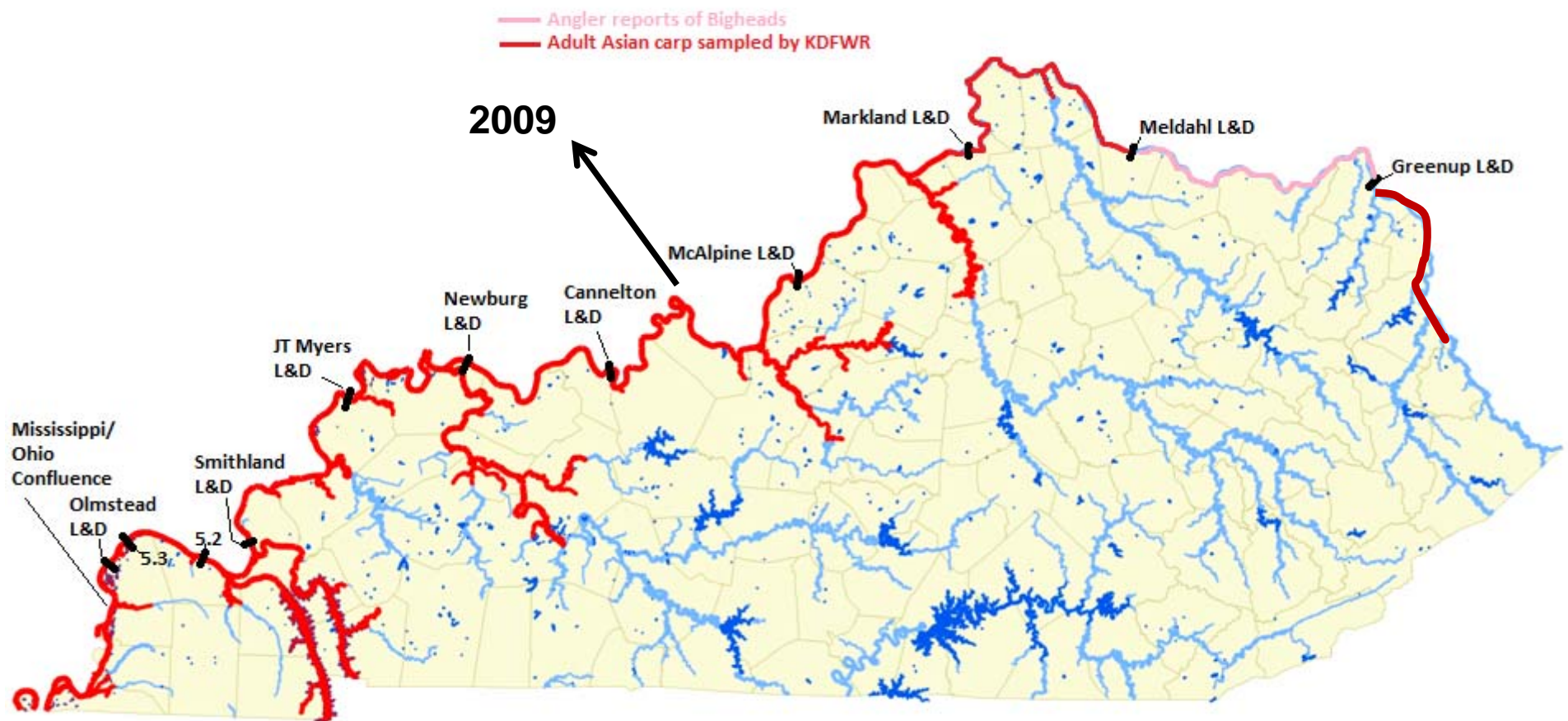


# Lake Erie and Ohio Watershed Counties

- 247,000 resident and non-resident fishing licenses
  - ~\$5.6 million annually
  - 34% of total statewide sales
- 105,000 Lake Erie Permit/Combo permits
  - ~\$1.5 million annually
- 115,400 boat registrations
  - 35% of total statewide sales
- Ecological Impacts
  - French Creek



# Asian Carp Movement



**In Kentucky, these invasives are now present in large numbers in both of our big rivers and all of our adjacent tributaries and two largest reservoirs**



[JasonLindsey.com](http://JasonLindsey.com)





Silver  
Carp  
342  
**56%**



Shad  
295  
**44%**

**Sample from Kentucky Lake tailwater  
2009**

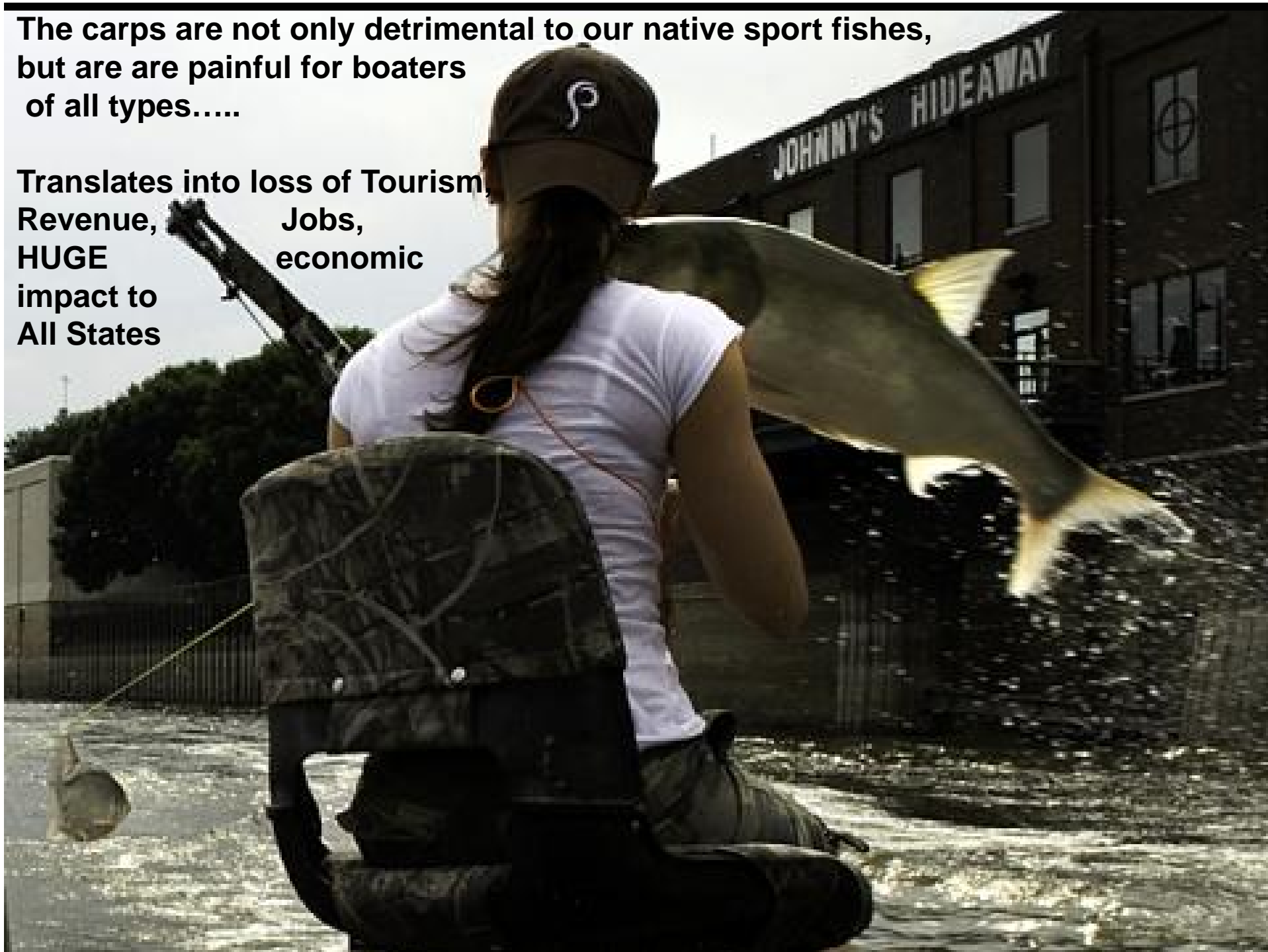


## Emaciated Paddlefish In Mississippi River Backwater

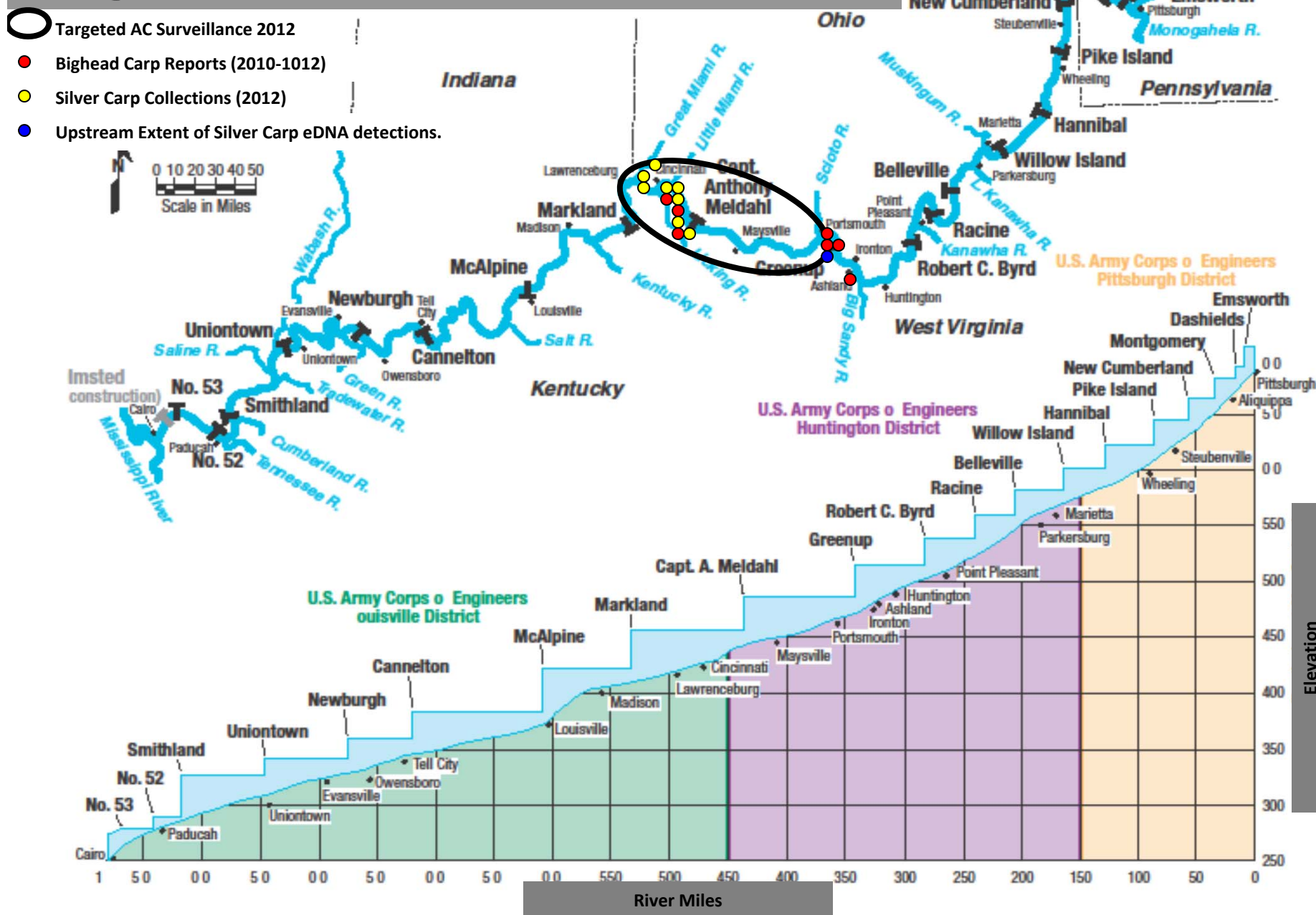


**The carps are not only detrimental to our native sport fishes,  
but are are painful for boaters  
of all types.....**

**Translates into loss of Tourism,  
Revenue, Jobs,  
HUGE economic  
impact to  
All States**

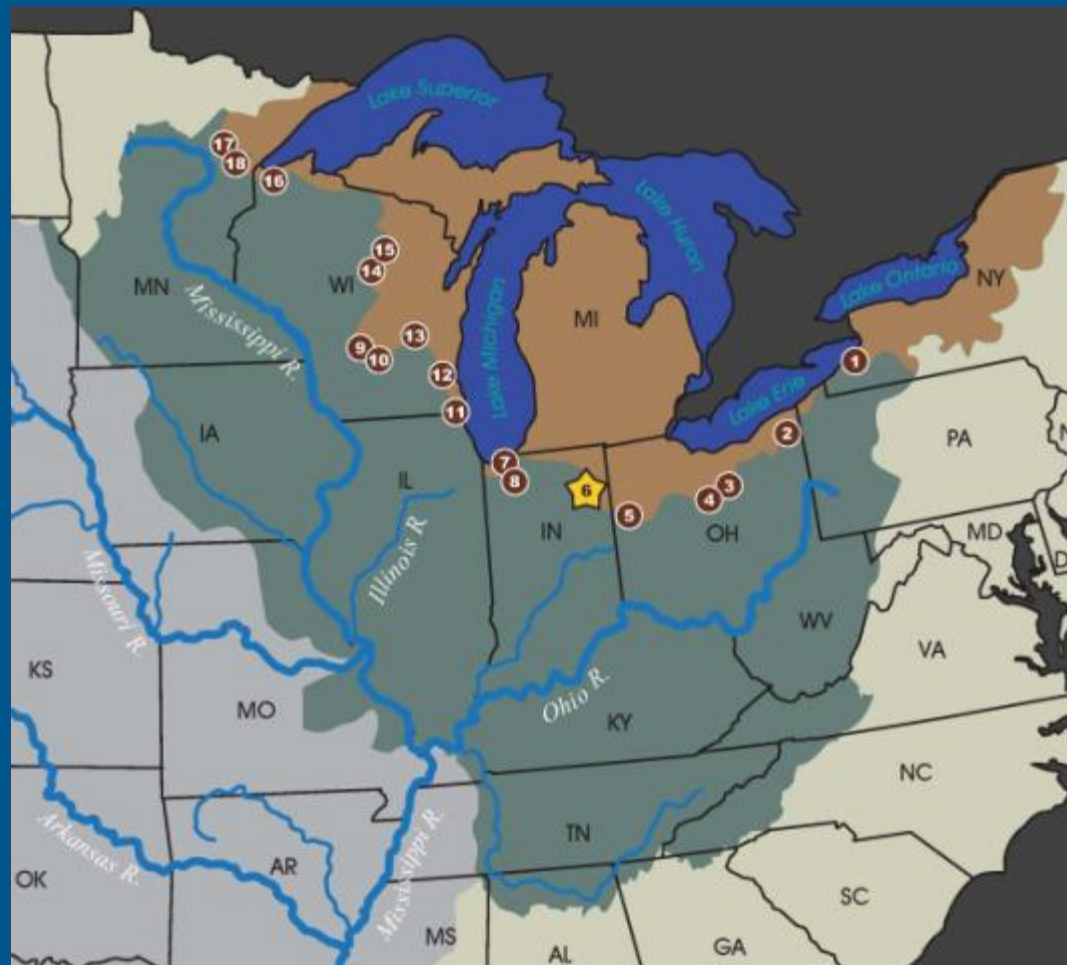


# Targeted Asian Carp Surveillance





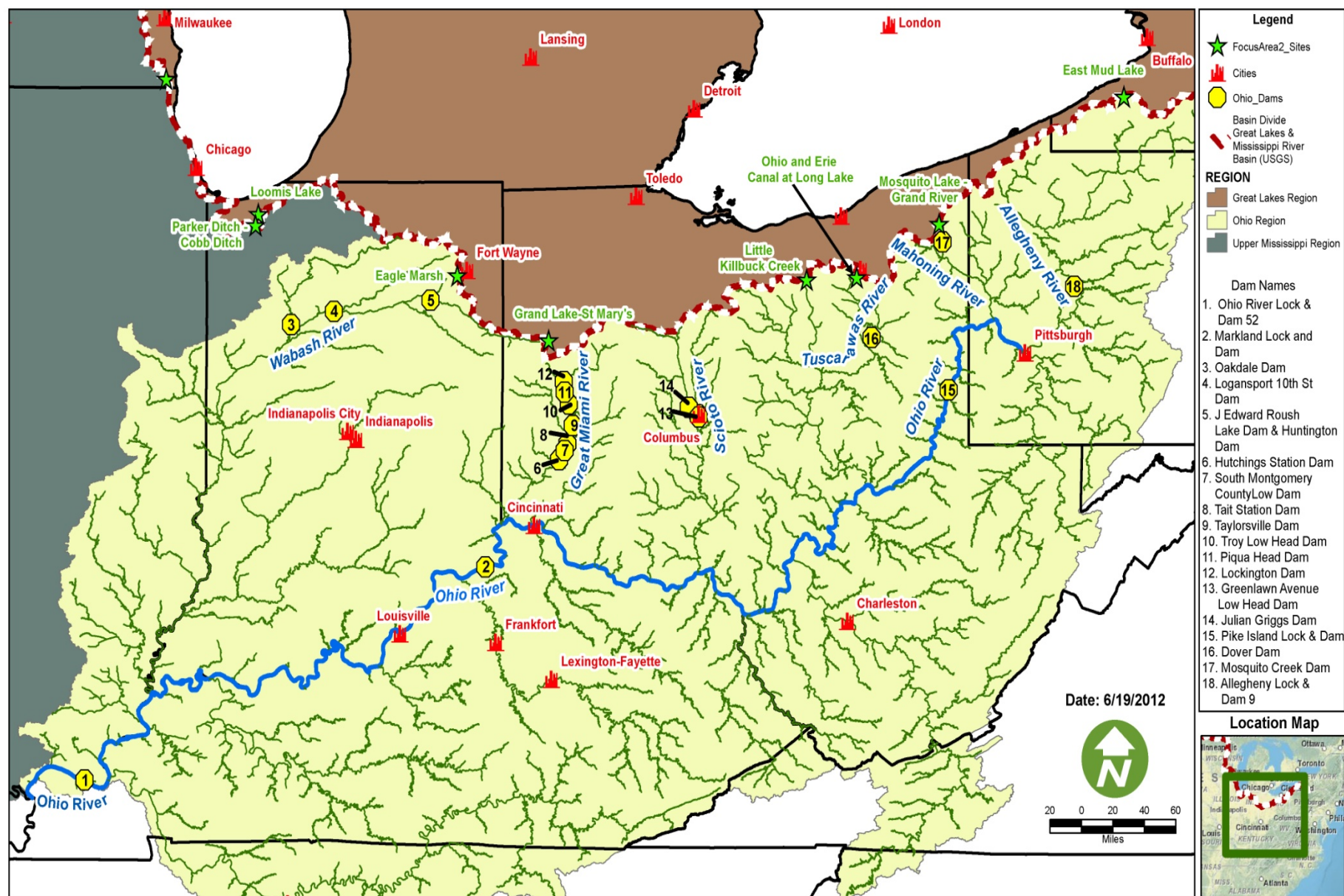
# Great Lakes and Mississippi River Interbasin Study





# Ohio River Potential Obstructions

GLMRIS



# Interstate Cooperation

- Communications
  - Monitoring
    - eDNA (Lake Erie and Ohio Watershed)
  - Ohio River Asian Carp Action Plan
    - Early Detection and Response
    - Prevention and Deterrence
    - Mitigation and Control
    - Communication and Outreach
- \*Able to build upon work of ACRCC

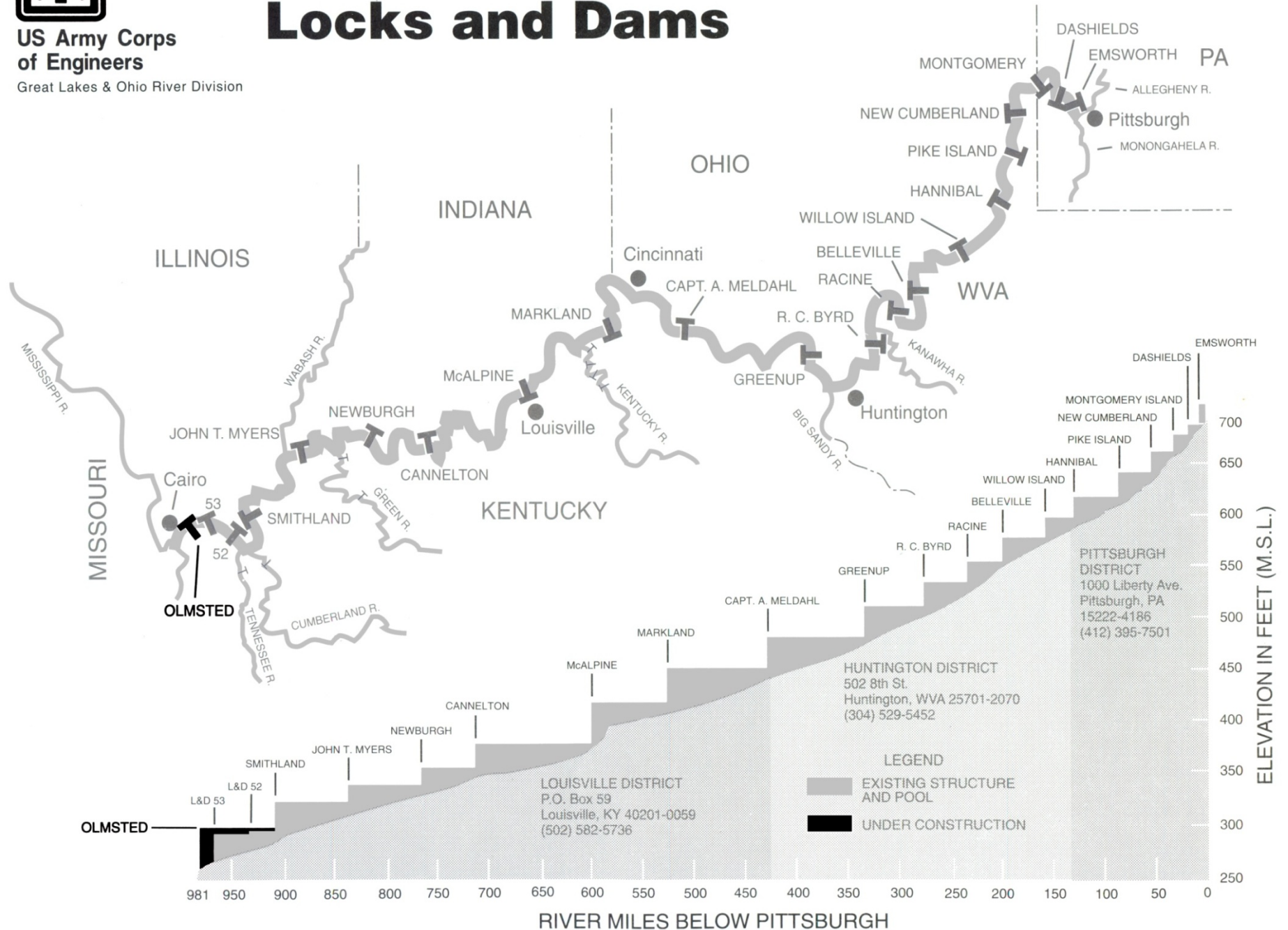




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# Ohio River Mainstem Locks and Dams







# ACRCC Transferable Actions Outside of the Great Lakes basin

- ▣ eDNA Sampling and Calibration
- ▣ Gear Development
- ▣ Telemetry and New Monitoring Techniques
- ▣ Waterguns
- ▣ Identifying Distribution of Asian carp
- ▣ Coordination and Technical Assistance
- ▣ Standardization of eDNA Testing



# Ohio River Next Steps

- HR 6385
- Continue Intergovernmental Cooperation
- Complete Ohio River Asian Carp Action Plan
- Fund Implementation Projects
  - ACRCC Framework
  - National Action Plan
  - Base Budgets
- Attack the Leading Edge
  - Learn from Illinois



# Discussion



United States Geological Survey