

GLMRIS

GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY



AQUATIC NUISANCE
SPECIES



ECOSYSTEMS



NAVIGATION



RECREATION



FLOOD RISK
MANAGEMENT



WATER USE

Materials



GLMRIS Study Overview



GLMRIS GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY

GLMRIS NEPA Scoping Oral Comment Registration Form

Complete this form if you want to speak at the NEPA public scoping meeting. Oral comments will be limited to 3 minutes per person. A stenographer will document the oral comments.

SUBMITTING PERSONAL INFORMATION: You must submit your first name, last name and zip code for your comment to be considered. Any other information is optional.

WITHHOLDING OF PERSONAL INFORMATION: Before including your address, phone number, e-mail address, or other personal information with your comment, you should be aware that your entire submission, including your personal information, will be posted on the GLMRIS Web site and included in the National Environmental Policy Act (NEPA) documents.

If you wish the U.S. Army Corps of Engineers to withhold your personal information from public view from the GLMRIS Web site and the NEPA documents, check the appropriate box below.

However, information withheld from the Web site and NEPA documents will be disclosed if required by law. Requests for disclosure of information collected will be handled through the Freedom of Information Act. Comments and information, including the identity of the submitter, may be disclosed, reproduced, and distributed. Submitters should not include any information that the submitter seeks to preserve as confidential.

Please note, all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

Select your Privacy Preference:
☐ Don't withhold my personal information from the website and NEPA documents
☐ Withhold my personal information from the website

First Name (required): _____
 Last Name (required): _____

Organization/Tribal (Official Representative only): _____

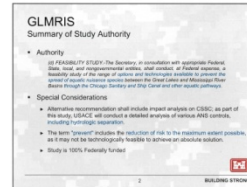
Street Address: _____

City: _____ State: _____ Zip Code (required): _____

Public Scoping Meeting Location: _____

Date of Comment: _____

Comment Number: _____



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NEPA Scoping Public Meeting Agenda	
12:00 p.m.	Remarks
12:15 p.m.	Study Presentation
12:30 p.m.	Oral Comment Period Begins <i>A microphone will be available to those who wish to provide substantive oral comments. Oral comments are limited to 3 minutes per person.</i>
3:30 p.m.	Oral Comment Period Ends
4:00 p.m.	Remarks <i>Remarks are delivered a second time for the benefit of those that may have missed opening remarks.</i>
4:15 p.m.	Study Presentation is Presented a Second Time <i>The same material will be presented a second time for the benefit of those that may have missed the first presentation.</i>
4:30 p.m.	Oral Comment Period Begins <i>A microphone will be available to those who wish to provide substantive oral comments. Oral comments are limited to 3 minutes per person.</i>
7:00 p.m.	Oral Comment Period Ends, Meeting Ends
Thank you for coming and providing your input! Also, check the GLMRIS Web site at www.glmrис.us.gov for a scoping meeting summary.	

GLMRIS GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY

GLMRIS NEPA Scoping Document Submittal Form

Complete this form, and attach it to your document. Turn this form in with your document when you go to speak or at the welcome desk.

SUBMITTING PERSONAL INFORMATION: You must submit your first name, last name and zip code for your comment to be considered. Any other information is optional.

WITHHOLDING OF PERSONAL INFORMATION: Before including your address, phone number, e-mail address, or other personal information with your comment, you should be aware that your entire submission, including your personal information, will be posted on the GLMRIS Web site and included in the National Environmental Policy Act (NEPA) documents.

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Public Scoping Meeting Location: _____

Date of Comment: _____

Comment Number: _____



GLMRIS GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY

1. What is a Corps Feasibility Study?

- A feasibility study will have the following components:
 - A concise main report that includes the study's technical findings, conclusions, and recommendation that confirms or denies the interest in the Corps of Engineers' implementation of a candidate project.
 - Technical appendices presenting the detailed background and results of individual tasks, and
 - A feasibility-level cost estimate for the recommended plan, and other supporting documentation.

The objective of the Feasibility Study is to investigate and recommend solutions to water resources problems. (Planning Manual, November 1986, NWR Report 90-R-21) (p. 221)

2. What is the study organization for GLMRIS?

The U.S. Army Corps of Engineers (USACE), Chicago District will lead the overall study. Individual sub-teams will be formed, as appropriate, to address Other Pathways outside of the Chicago Area Waterway System (CAWS). The study team will emphasize transparency, stakeholder involvement, and basin-wide communication. For the Project Management Plan (PMP) the GLMRIS Team will work closely with an Executive Steering Committee (ESC). The purpose is to inform the study team's effort based on agency expertise and facilitate coordination among various Federal and state agencies with respect to GLMRIS.

3. How is the project funded?

The study is 100% federally funded.

4. Who are the Stakeholders for GLMRIS?

A stakeholder is someone with an interest in the outcome of a recommended course of action. The stakeholders are crucial to the specification of problems and opportunities. Identifying the stakeholders is the first important step in analyzing them in this process. Stakeholders for GLMRIS include Federal, state, and local agencies, Native American Tribes, non-governmental organizations, and the public. (Planning Manual, November 1986, NWR Report 90-R-21) (p. 245)

5. What is the anticipated product?

The Corps will produce a comprehensive feasibility report and an Environmental Impact Statement (EIS) that would serve as the basis for the Chief of Engineer's Report to Congress upon completion of all review and approval processes. The report will document study findings and include a

6. What is the duration of the Study?

Project schedules call for a recommended timing is provided.

One of GLMRIS, Other Pathways, has three potential sites that have a risk of potential release - Eagle Marsh, near Ft. Wayne, IN - served by Indiana Department of Natural Resources. USACE is also completing a study to be complete in late 2011.

It takes until 2015 to complete the study. The study is anticipated in 2015 following the completion of the results of a feasibility study.

The feasibility study, a significant amount of conditions now and in the future. The waterway uses. To do so, USACE must define the current and future water use at the study area conditions would be in 1) at baseline analysis is anticipated to late

OTHER ANS EFFORTS

Besides GLMRIS, what are the current efforts of USACE to prevent aquatic nuisance species (ANS) from establishing sustainable populations in the Great Lakes?

The most likely current threat of ANS transfer between the Great Lakes and Mississippi River basins through aquatic pathways in the potential spread of Asian carp from the Mississippi River, Illinois River, and the Wabash River to the Great Lakes. The U.S. Army Corps of Engineers (USACE) current operations and maintains the Electric Dispersal Barrier System on the Chicago Ship and Sanitary Canal (CS&C), which has demonstrated effectiveness at repelling fish.

USACE is a member of the Asian Carp Regional Coordinating Committee (ACRCC), which is an interagency task force made up of federal, state and local agencies, working together to prevent a sustainable population of Asian carp from entering the Great Lakes.

What is the Electric Dispersal Barrier System?

The Electric Dispersal Barrier System was designed to prevent inter-basin transfer of fish from the Mississippi River and Great Lakes drainage basins via the CS&C. It consists of three electrical barriers, Barrier I, II and III.

Barrier I has been operational since 2002. Barrier II was placed into full-time operation in 2009. Barrier III will be turned on for operational start-up testing in December 2010 to determine if Barrier III is operating as designed. Once operational testing is successfully completed, safety testing will be conducted. The safety testing is scheduled for January and February 2011.

The Electric Dispersal Barrier System is formed of steel electrodes placed along the bottom of the CS&C and connected to electrical equipment inside a control building. Equipment in the control building generates a DC pulse through the electrodes, creating an electric field in the water that discourages fish from crossing. Parasitic structures that help control the extent of the in-water electric field have also been successfully installed in the waterway.

Does the electric barrier prevent Asian carp from passing through?

Laboratory testing has shown the current operating parameters of Barrier I to be effective at repelling fish. Only one Asian carp has been located above the Electric Dispersal Barrier System and was found in Lake Calumet. It is not known how this fish got into Lake Calumet. Possibilities include a release by others, breaching the electrical barriers or passing through the Chicago Area Waterway System (CAWS) prior to operation of the electrical barrier system.

In an effort to maximize the efficiency of the Electric Dispersal Barrier, a series of interim efficacy studies has been conducted that looks at potential overflow connections between the Des Plaines River and the CS&C, optimal operating parameters of the electrical barrier system, construction of additional barriers and the effects of modified lock operations.

As a result of the interim efficacy studies, USACE identified areas of potential bypasses of the Electric Dispersal Barrier System and recommended construction of a 12-mile long fence composed of wire-mesh and concrete along the Des Plaines River, as well as a stone barrier in the I&M Canal. In the event of heavy rainfall, it is possible for water from the three adjacent waterways to overflow to the CS&C north of the barrier location. These measures prevent Asian carp from bypassing the barriers during flooding. Construction of the stone blockage at the I&M Canal was completed in June 2010. The Des Plaines Fence was completed in October 2010.

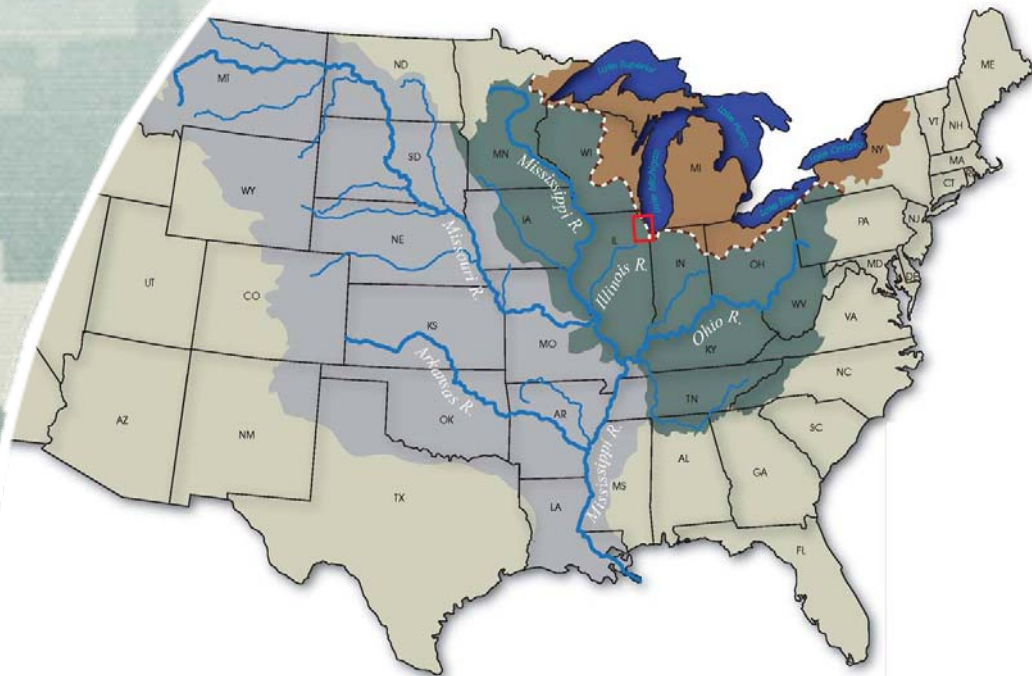
Great Lakes & Mississippi River Interbasin Study

GLMRIS

GLMRIS Team
USACE Great Lakes & Ohio River Division;
Mississippi River Valley Division



US Army Corps of Engineers
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Asian Carp Control Update

John Goss

Jim Bredin

Council on Environmental Quality

Background



Other Aquatic Invasive Species

Zebra Mussel in the 1980's



Sea Lamprey in the 1920's



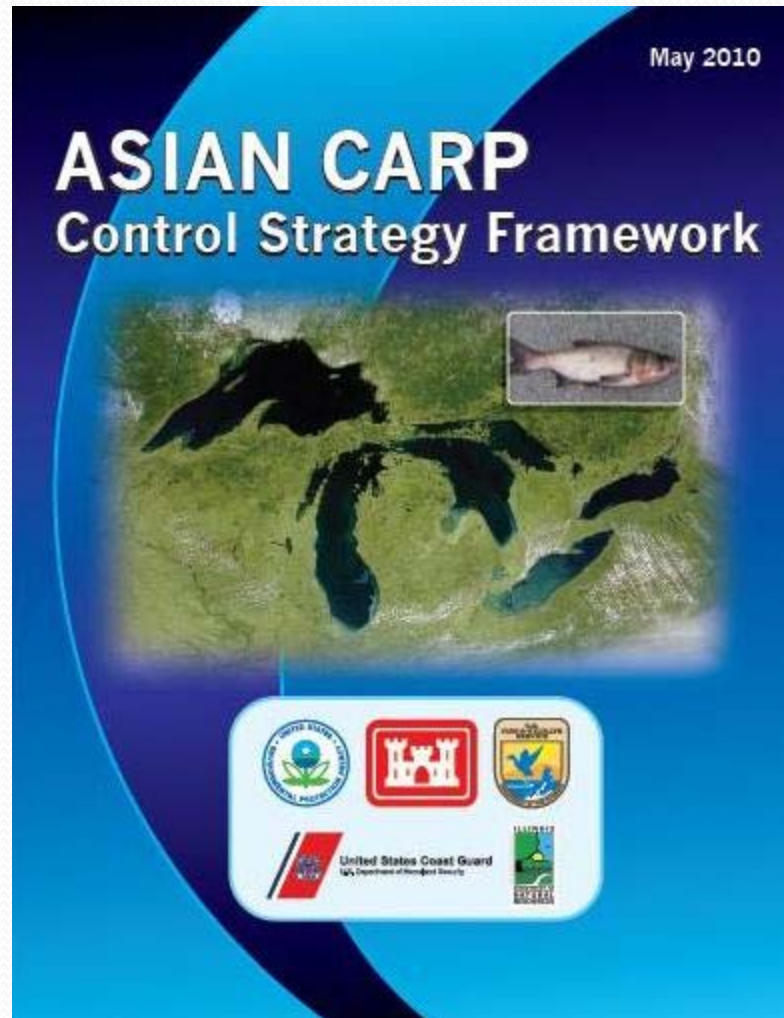
Quagga Mussel in the 1980's



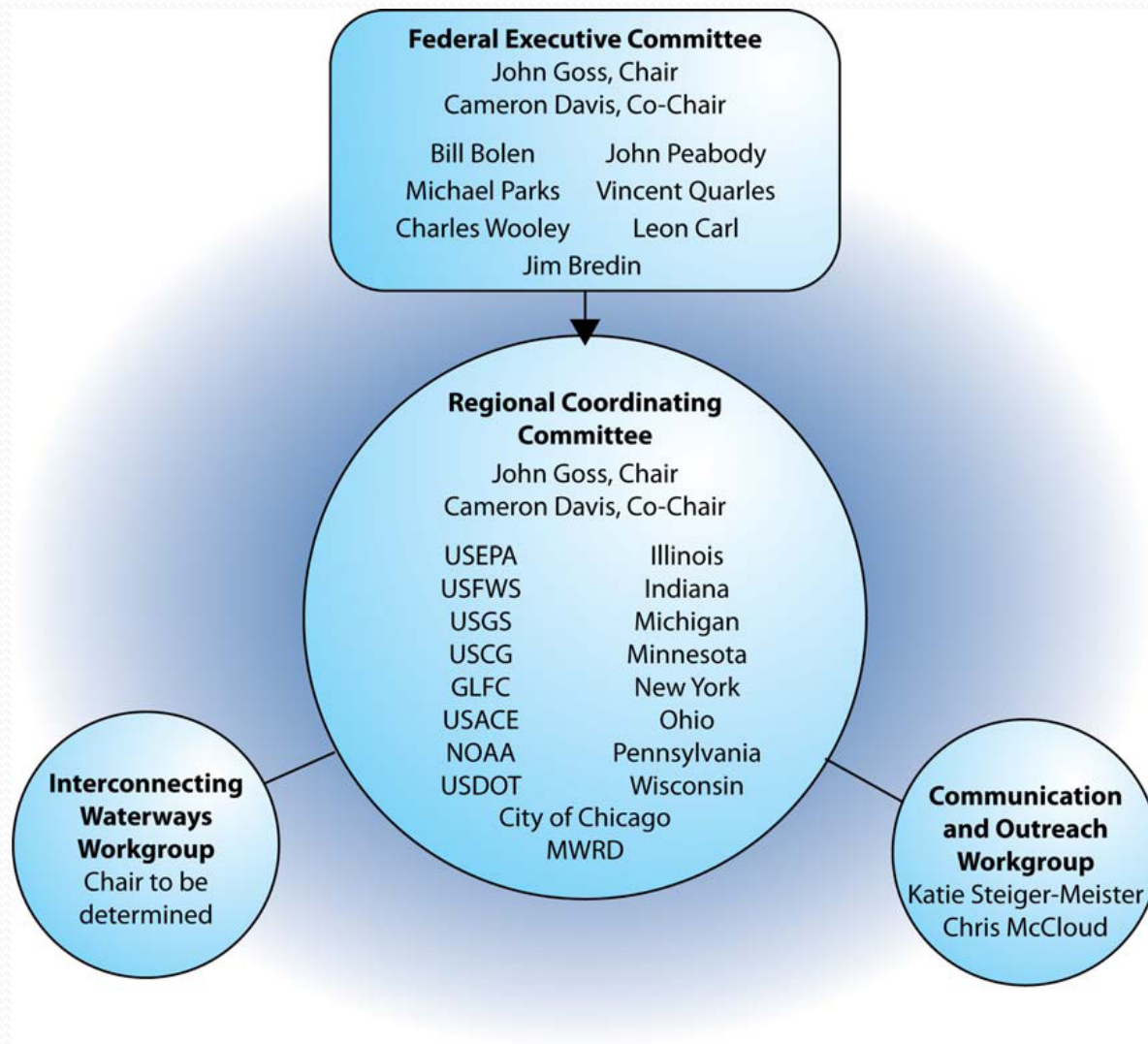
Eaters and Breeders



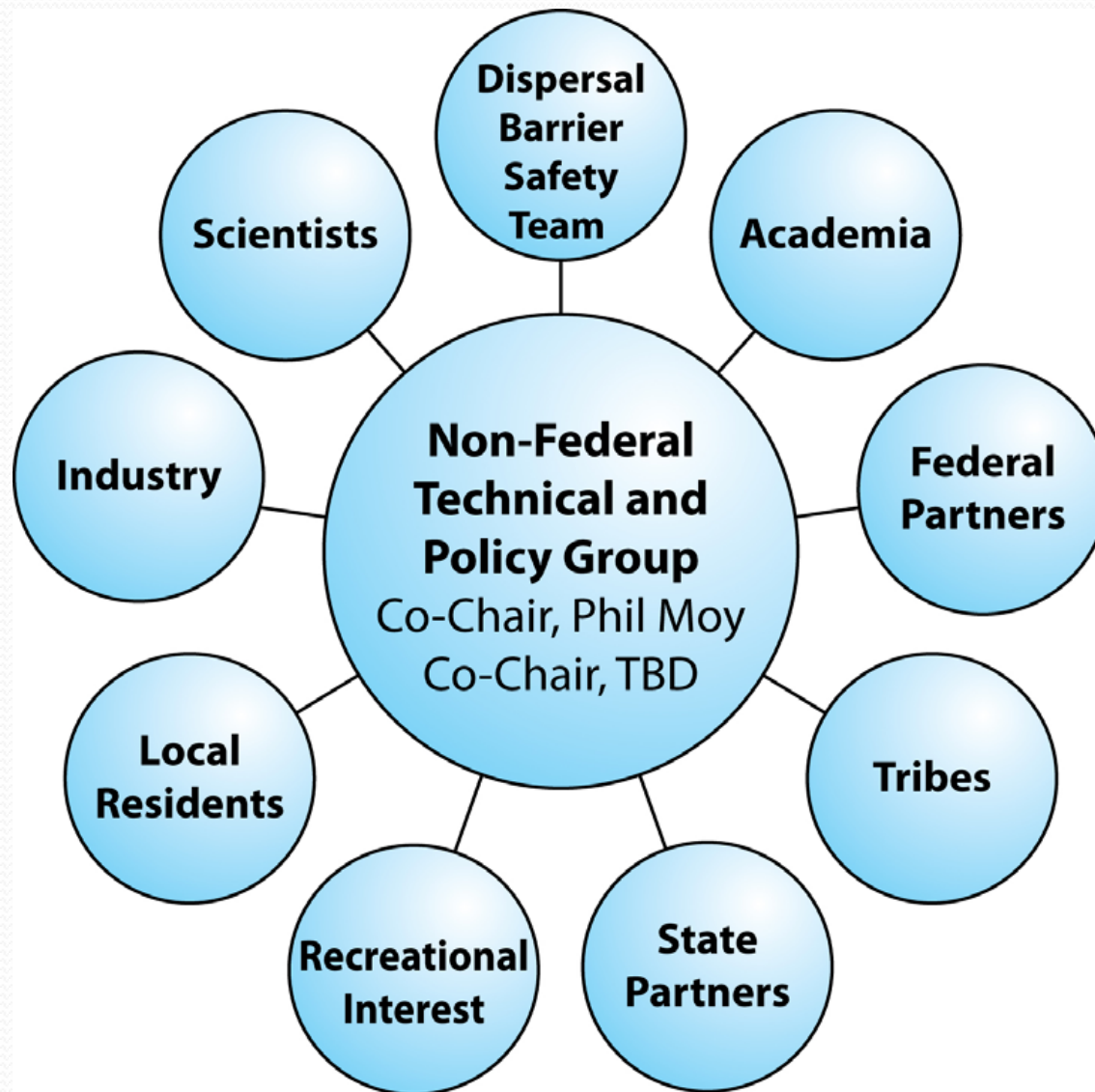
2010 Asian Carp Control Strategy Framework



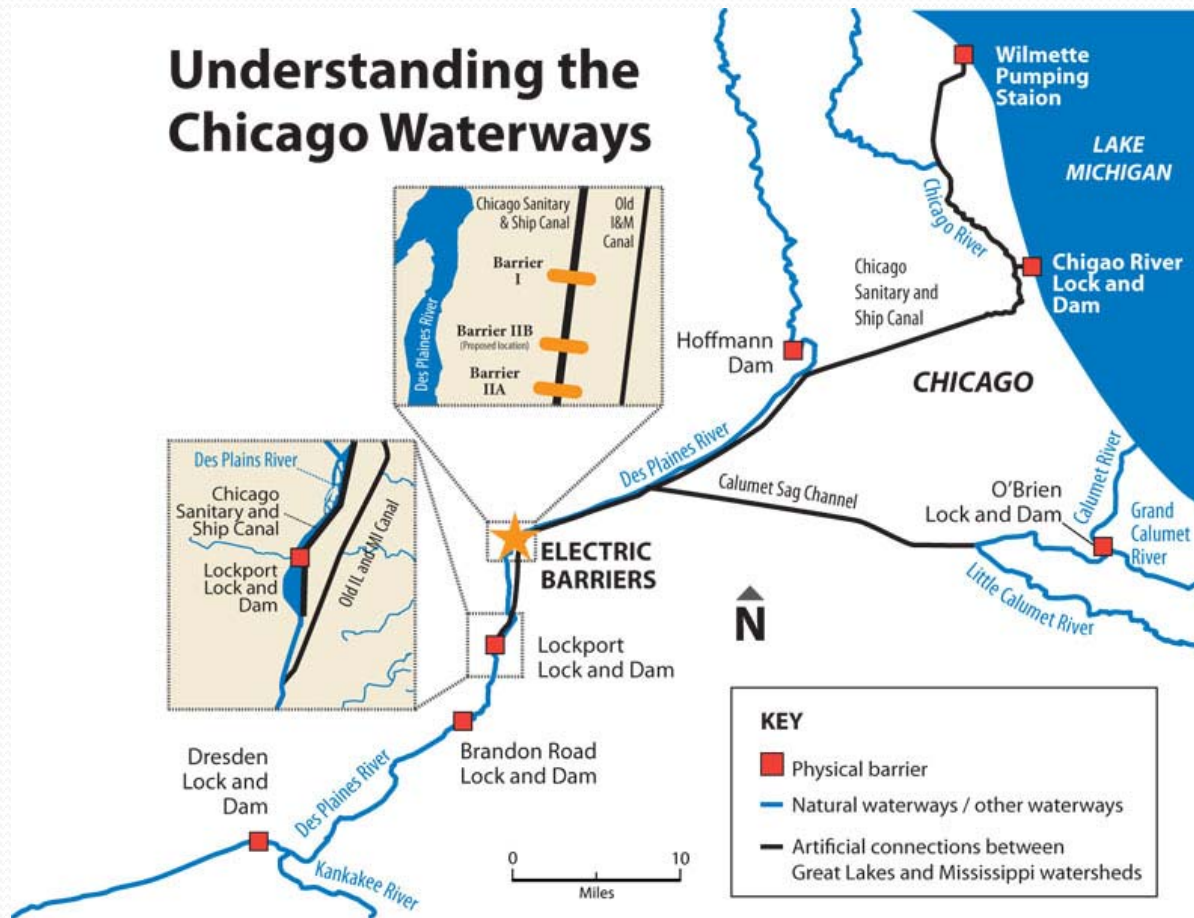
Asian Carp Regional Coordinating Committee



Non-Federal Technical and Policy Group



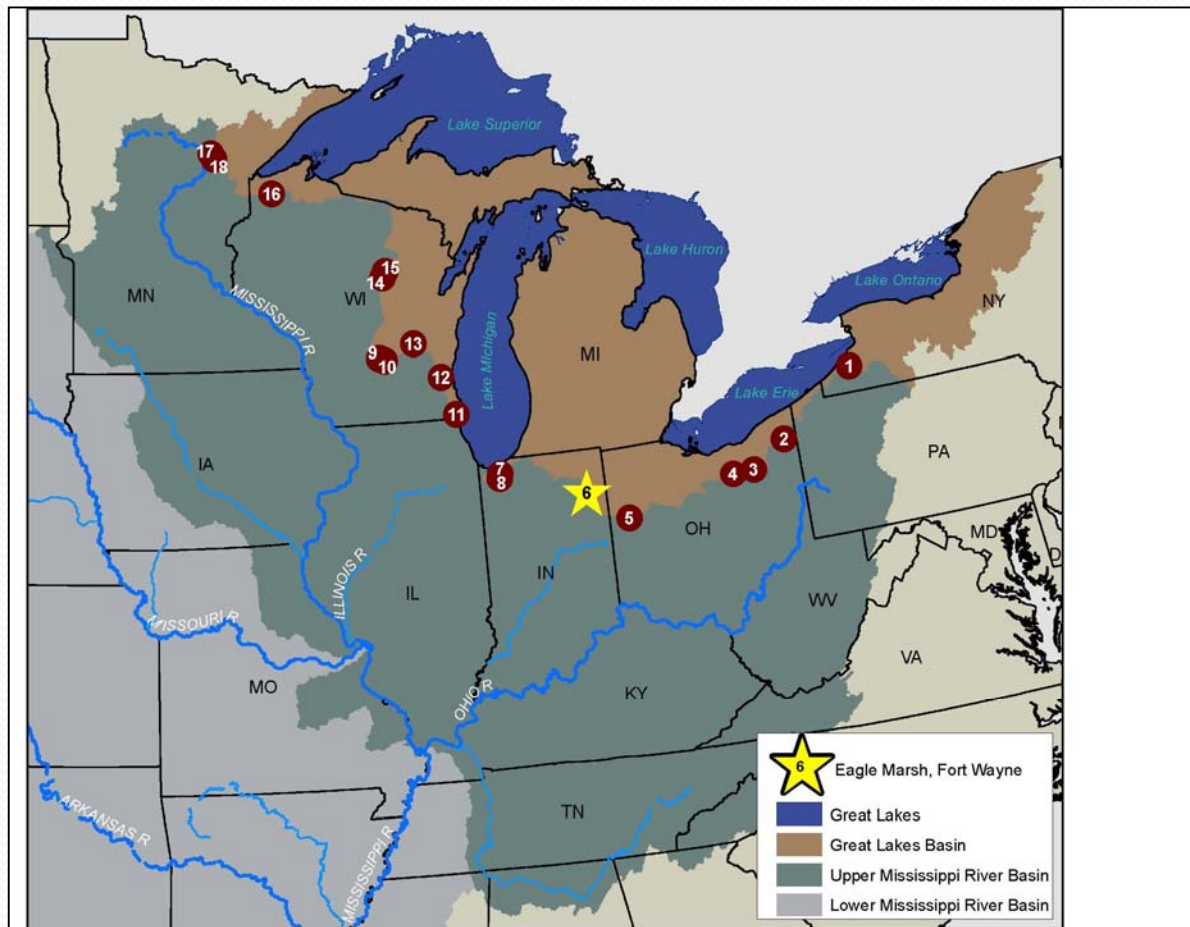
Key 2010 Accomplishments



Key 2010 Accomplishments



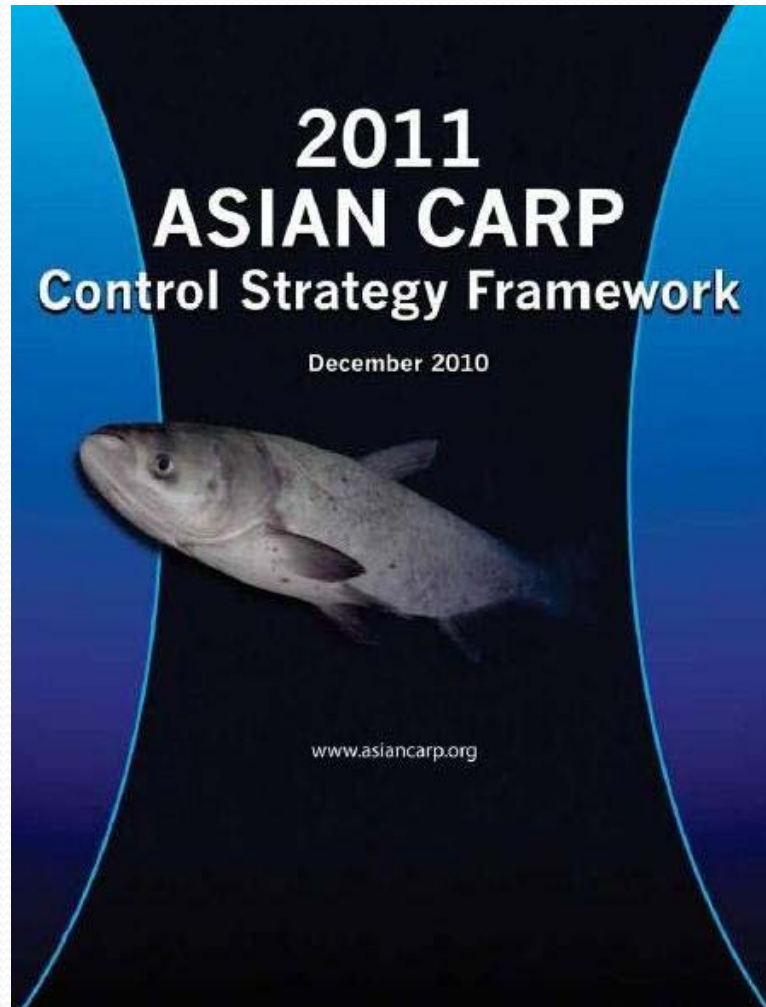
Key 2010 Accomplishments



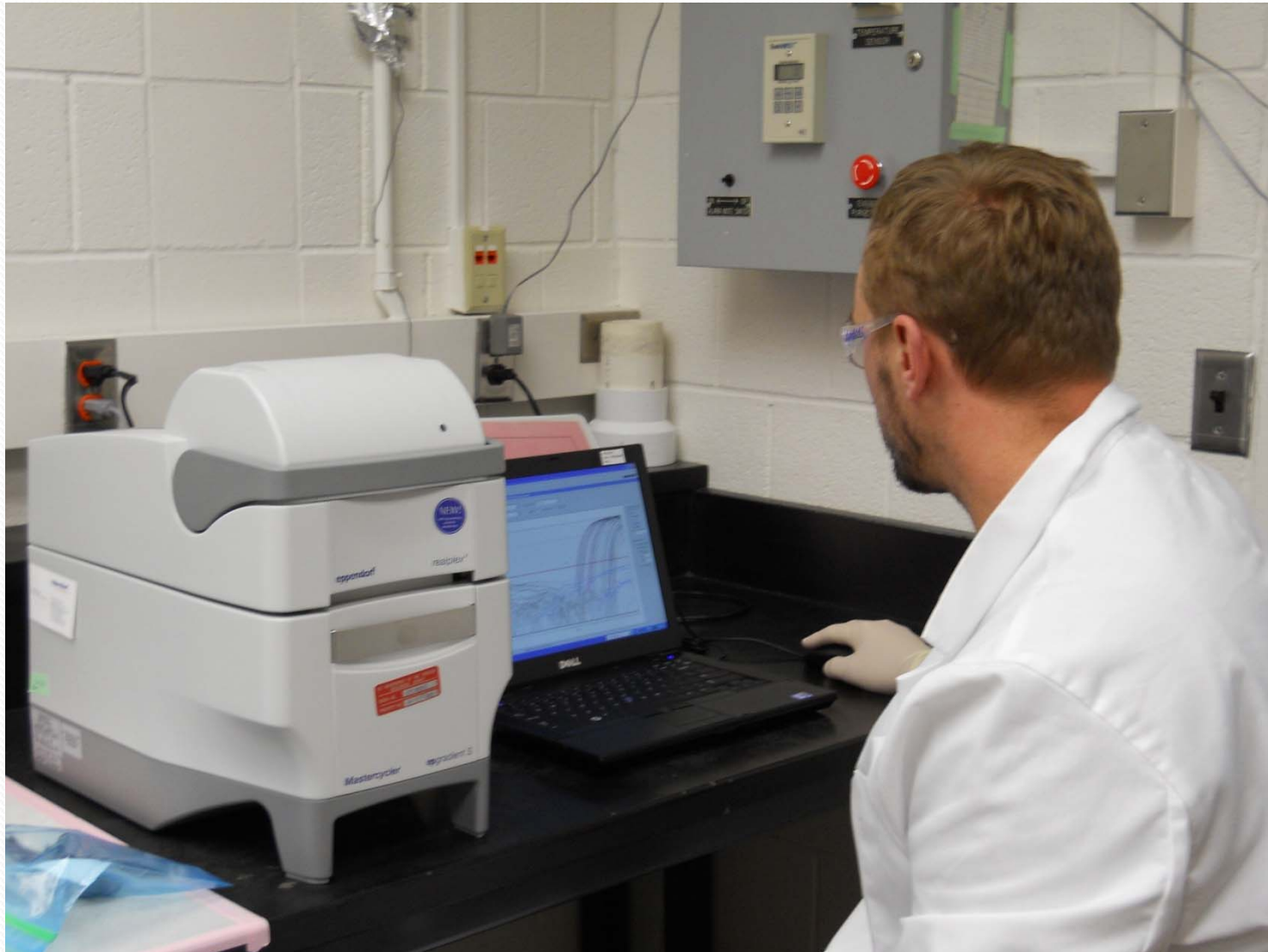
Other Key 2010 Accomplishments



2011 Asian Carp Control Strategy Framework



New 2011 Projects



New 2011 Projects



Key Ongoing Projects

Focus Area I: **Chicago Area Waterways**

- Establish w/o Project Conditions
 - Baseline Data
 - Reports
 - Surveys
- Feasibility Report
- Environmental Impact Statement
- Record of Decision

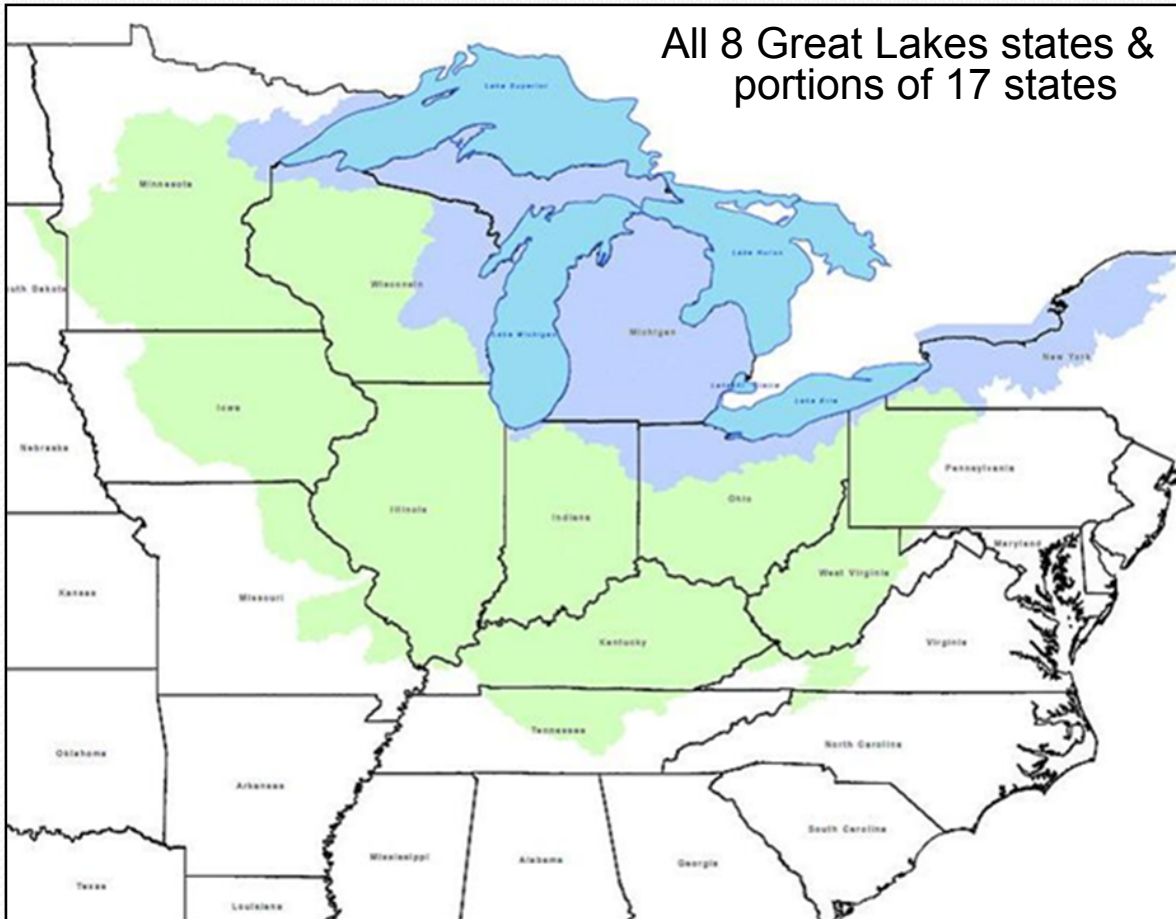
Focus Area II: **Other Connections**

- Prelim Risk Characterization
- Final Risk Characterization
- Detailed Project Report(s)

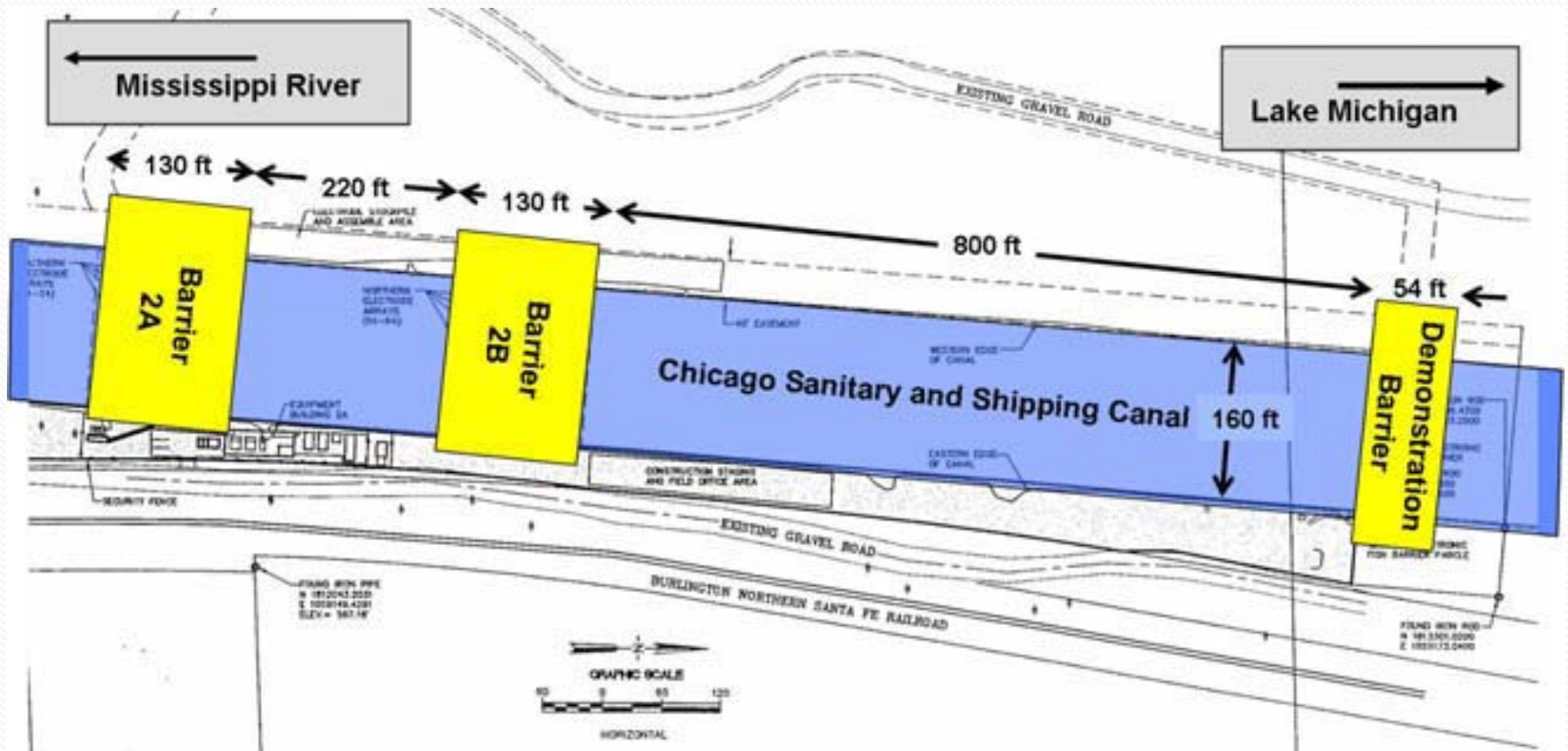
Collaboration

- Federal, State, Regional Agencies
- Native American Tribes
- Non-governmental organizations

All 8 Great Lakes states & portions of 17 states



Key Ongoing Projects



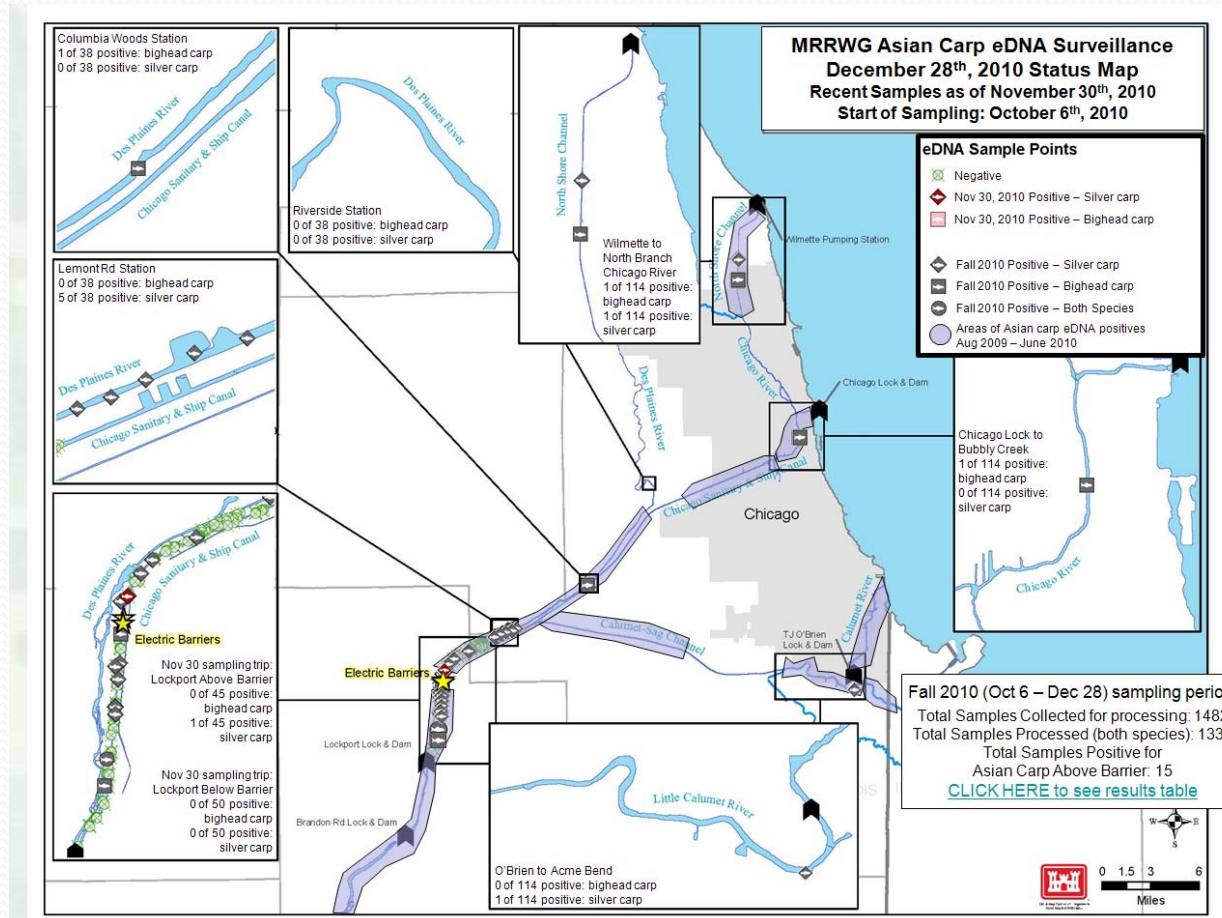
Key Ongoing Projects



Key Ongoing Projects



Key Ongoing Projects



Thank you

For questions or more information

Please visit www.asiancarp.org

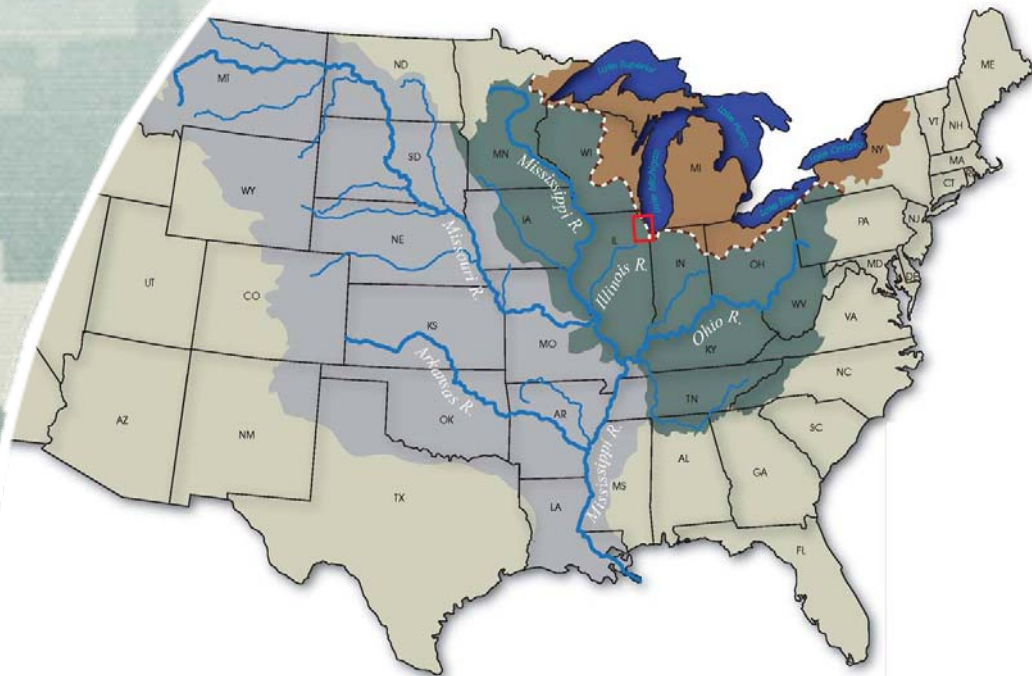
Great Lakes & Mississippi River Interbasin Study

GLMRIS

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USACE Great Lakes & Ohio River Division;
Mississippi River Valley Division



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Summary of Study Authority

- Authority

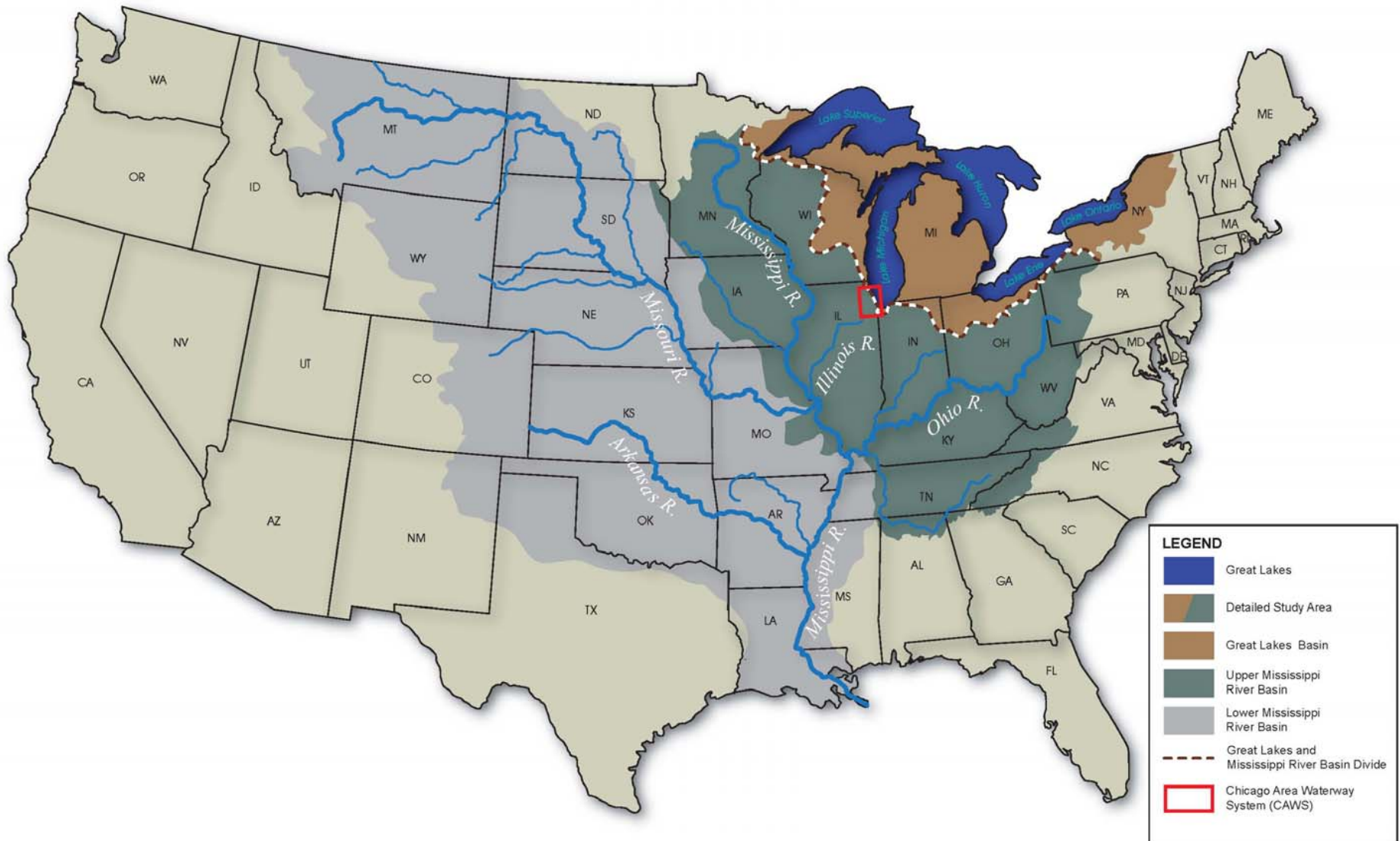
*(d) FEASIBILITY STUDY.-The Secretary, in consultation with appropriate Federal, State, local, and nongovernmental entities, shall conduct, at Federal expense, a feasibility study of the range of **options and technologies available to prevent the spread of aquatic nuisance species** between the Great Lakes and Mississippi River Basins **through the Chicago Sanitary and Ship Canal and other aquatic pathways.***

- Special Considerations

- ▶ Alternative recommendation shall include impact analysis on CSSC; as part of this study, USACE will conduct a detailed analysis of various ANS controls, **including hydrologic separation.**
- ▶ The term "**prevent**" includes the **reduction of risk to the maximum extent possible**, as it may not be technologically feasible to achieve an absolute solution.
- ▶ Study is 100% Federally funded



GLMRIS STUDY AREA MAP



GLMRIS - Feasibility Study Scope

	Includes	Does not Include
Pathways	Aquatic Connections	Terrestrial Airborne
	Swimmers (<i>fish</i>) Floaters (<i>algae, plants, etc</i>) Hitchhikers (<i>parasites</i>)	Human Release
Locations	Interface between Great Lakes Basin and Mississippi River Basin	Atlantic slope; St. Lawrence Seaway
	Portions of 31 U.S. states	Canada
Elements	Analysis of options/technologies to prevent interbasin transfer of all ANS	Detailed biological research on aquatic nuisance species of concern
	Evaluation of hydrologic separation	Airborne or terrestrial separation elements
	Regional economic modeling	Location-specific economics
	Risk-based ecological decision-making	Quantitative environmental models
	Environmental Impact Statement	



GLMRIS Strategy

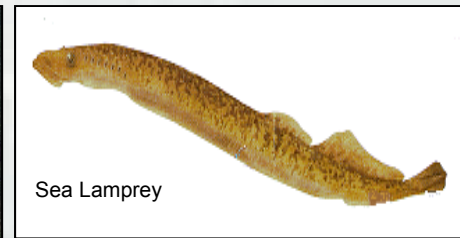
- Study two geographically-oriented Focus Areas along basins' divide
 - ▶ Chicago Area Waterways (CAWS) – Primary effort
 - ▶ “Other Pathways” outside the CAWS
- Organize for success
 - ▶ USACE
 - Leadership and local knowledge from across the organization: USACE Regional Technical Experts, Planning Centers of Expertise, Research Laboratories
 - ▶ Executive Steering Committee (ESC)
 - ▶ Stakeholders – Federal, Tribal, State, Local and NGO's
 - Solicit input and leverage resource capabilities
 - Key stakeholders ability to provide input and directly support GLMRIS efforts
- Cycle out Interim Products and Reports
 - ▶ Summary of collected data
 - ▶ Incremental or specific solution elements
- Adapt to new and evolving information to the extent possible
- Abide by all legal and regulatory guidance



GLMRIS

Study Purpose

- Identify aquatic pathways that may exist between the Great Lakes and Mississippi River basins
 - ▶ Focus Area I – Chicago Area Waterways
 - ▶ Focus Area II – Other Pathways
- Inventory current and future potential aquatic nuisance species (ANS)



- Analyze possible ANS controls available to prevent ANS transfer between basins, via aquatic pathways
 - ▶ Includes evaluation of hydrologic separation of the basins



CAWS

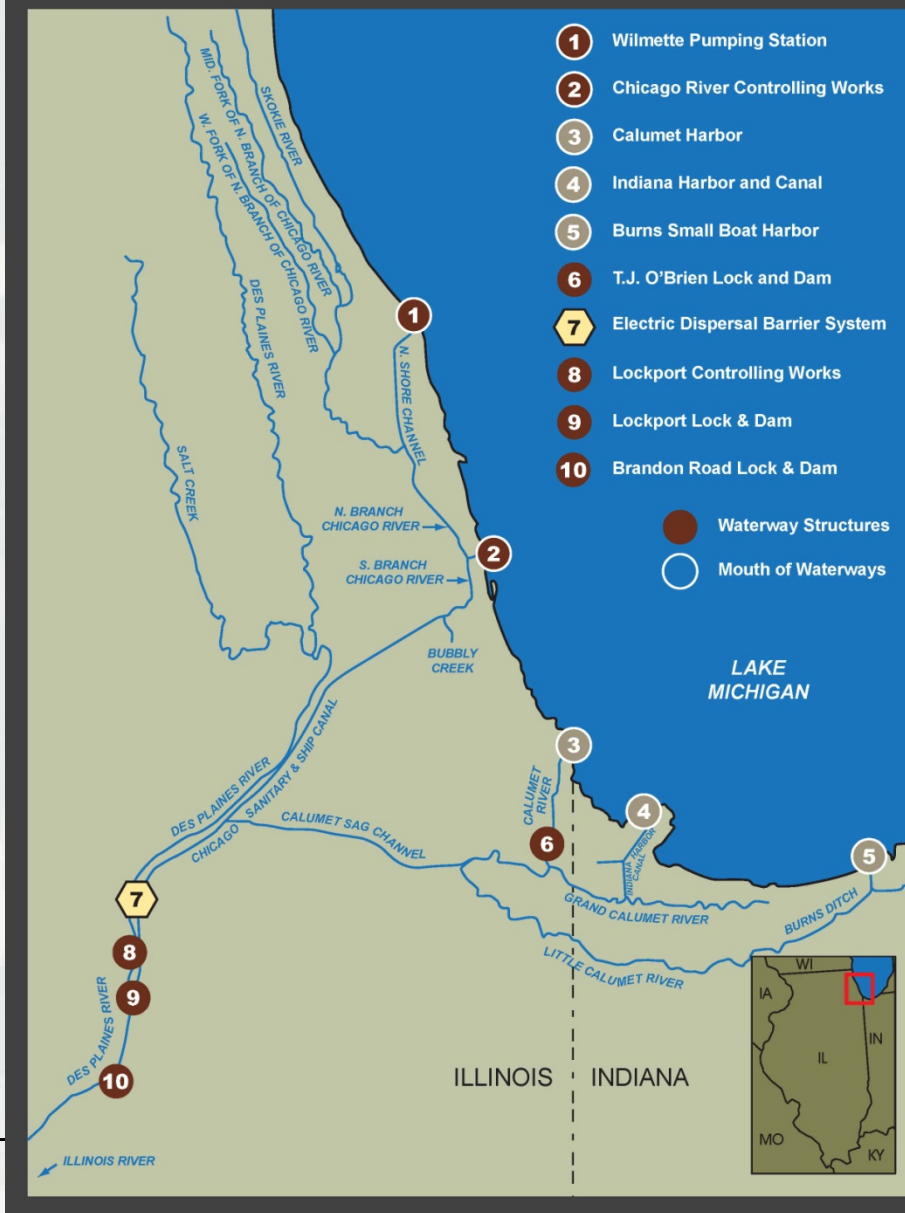
Focus Area I

- Specify Problems & Opportunities
- Inventory & Forecast Conditions
 - ▶ Baseline data; surveys
 - ▶ Reports
- Formulate Alternative Plans
- Evaluate Effects of Plans
- Compare Alternatives
- Select Recommended Plan
 - ▶ Feasibility Report
 - ▶ Environmental Impact Statement
 - ▶ Record of Decision

Collaboration

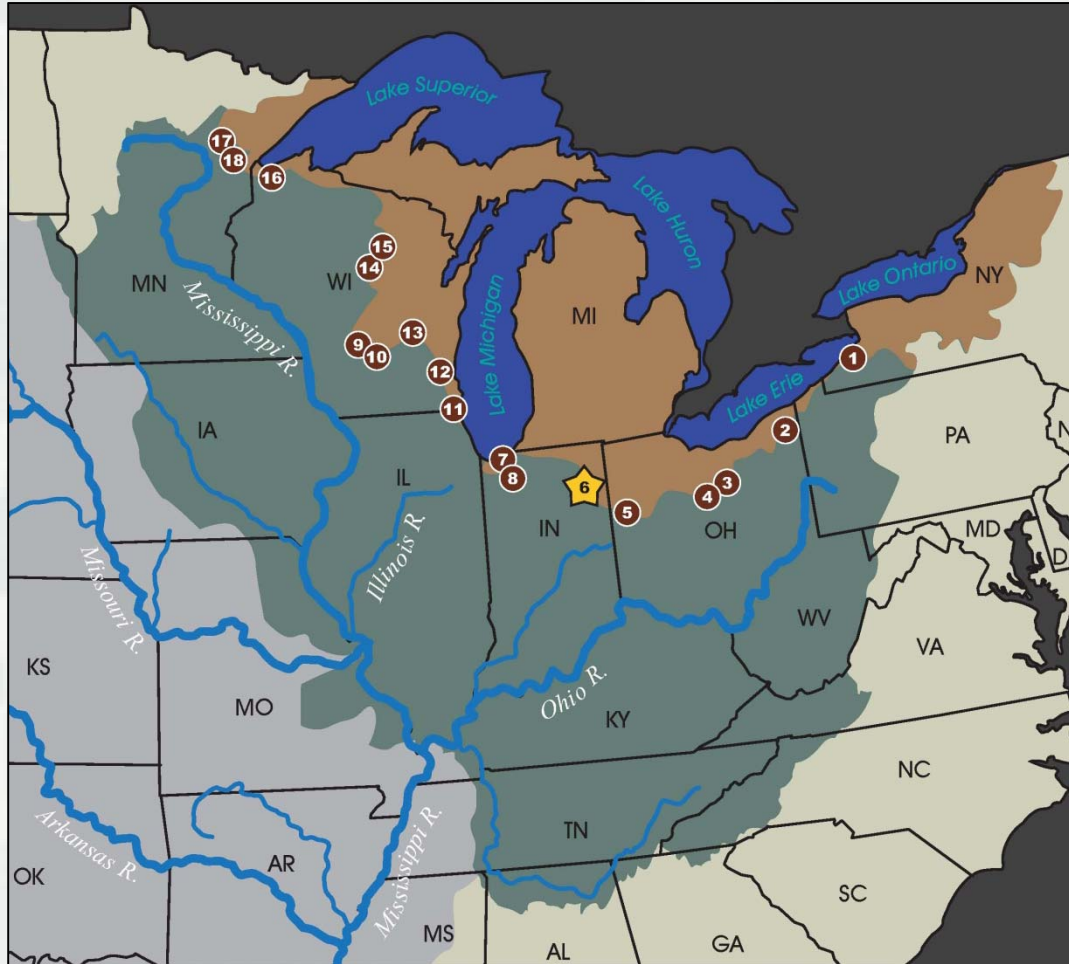
- Federal, State, Regional Agencies
- Native American Tribes
- Non-governmental organizations

CHICAGO AREA WATERWAY SYSTEM



Other Pathways

Focus Area II



Preliminary Risk Characterization

- Objectives
 - ▶ Inventory of potential aquatic pathways
 - ▶ Assess risk of ANS transfer
- Results
 - ▶ 36 total – 18 locations w/ significant risk for potential ANS transfer
 - ▶ Highest Risk:
Eagle Marsh, Ft Wayne, IN
 - Intermittent aquatic pathway; Asian carp reported w/in 25 mi
 - Interim measure implemented by InDNR
 - USACE developing long-term risk mitigation alternatives



GLMRIS

Accomplishments to Date

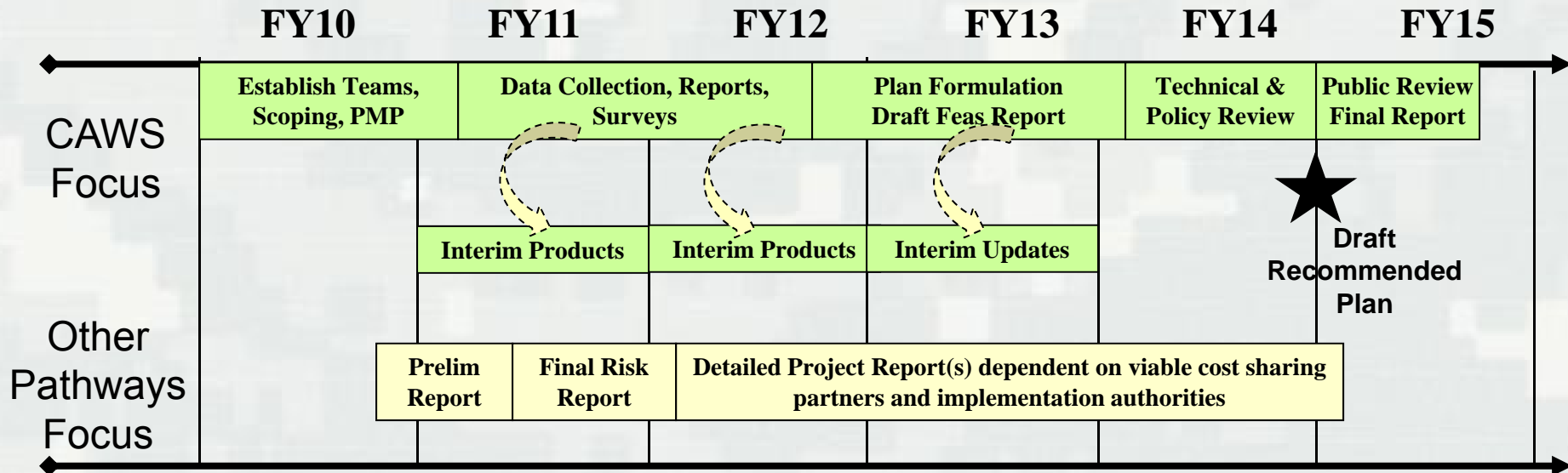
Develop Project Management Plan

- Jun 09 – Receipt of funds
- Sep 09 – Multi-District Kick-off
- Nov 09 – Est PDT & Support Teams
- Dec 09 – Begin PMP development
- Jan 10 – Agency scoping meeting
- Jan 10 – Develop GLMRIS roadmap
- Mar to Nov 10 – Prep/Final PMP
- Jun 10 – Tribal meeting
- Jul 10 – Draft PMP to ESC members
- Aug 10 – Conduct ESC workshop
- Nov 10 – Complete PMP
- Dec 10 – Begin Public Scoping

Simultaneous Execution

- Asian Carp Lit Review
 - ▶ 60+ pieces of literature on AC life history, sustainability, and control technologies
- Draft ANS White Paper
 - ▶ Reviewed approx 625 pieces of literature
 - ▶ Identified 154 species, combined, which may be alien among the two basins
- Preliminary Risk Characterization Report for Other Pathways
- Eagle Marsh, Ft. Wayne, IN
 - ▶ GLMRIS facilitated identification of pathway; implementation of interim risk reduction measure by state DNR
 - ▶ Initiated Detailed Project Report for long-term recommendation

GLMRIS Project Schedule*



CAWS

- **Data Collection:** Fall '10 - Summer '12
- **Formulate Alternatives:** Spring '12 – Winter '13
- **Evaluate & Compare Alt's:** Winter '13 – Summer '13
- **Select Recommended Plan/Prepare Draft Report:** Summer '13 – Winter '14
- **Technical and Policy Review:** Winter '14 – Fall '14
- **Release Report for Public Review:** Fall '14 – Winter '15
- **Finalize Report:** Winter '15 – Summer '15

Other Pathways

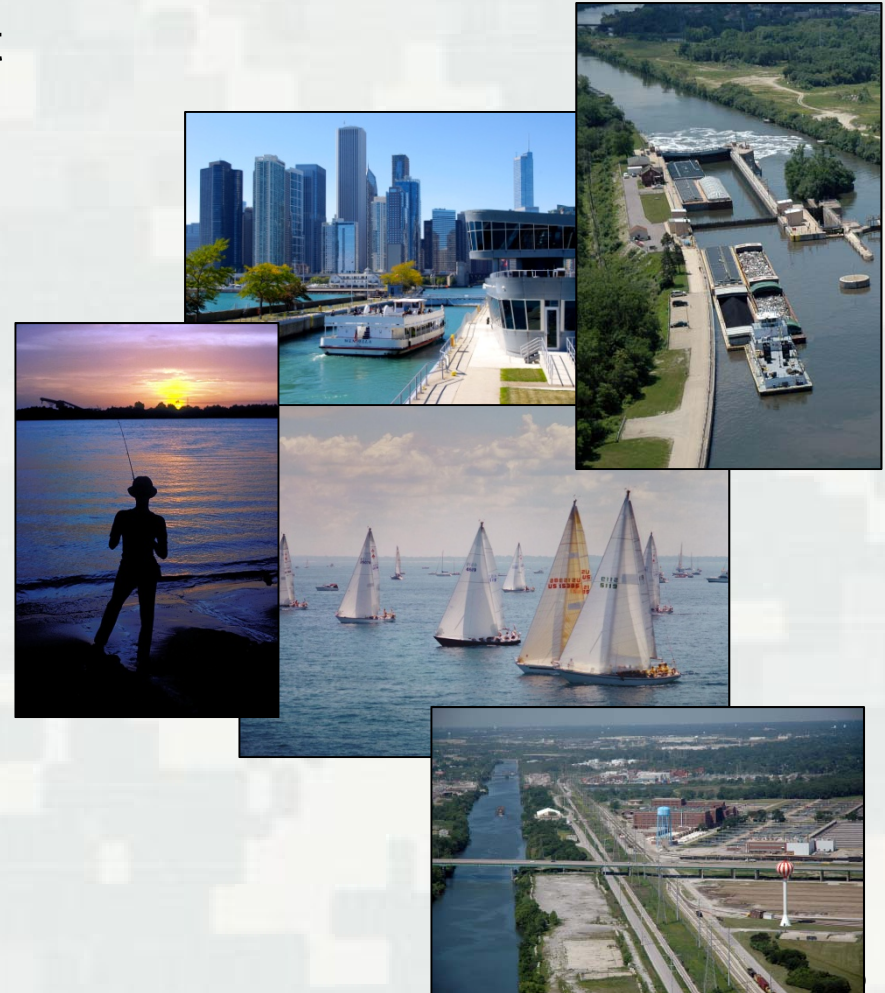
- **Preliminary Risk Characterization Report:** Fall 2010
- **Final Risk Characterization Rpt** (17 locations) Fall 2011
- **Eagle Marsh – Ft. Wayne, IN**
 - Detailed Project Report – Fall 2011
 - Authority & sponsor TBD



GLMRIS

Interim Products & Updates

- Interim Products will be cycled out during the data-gathering phase
- Interim Products
 - ▶ Inventory ANS & Transport Mechanisms
 - ▶ ANS Control Technologies
 - ▶ Navigation Surveys
 - Commercial Cargo
 - Commercial Passenger
 - Recreational Boating
 - ▶ Fisheries Surveys
 - Great Lakes
 - Mississippi River
- Interim Updates may be provided as the study matures
 - ▶ Other Pathways Report(s)



“How Can We Help?”

GLMRIS – Stakeholder Input

- Stakeholder inputs need to:
 - ▶ Directly apply to GLMRIS scope
 - ▶ Conform to USACE Quality Control/Quality Assurance requirements

- Example Inputs to Accelerate GLMRIS:
 - ▶ Inventory Cultural Resources (*US Park Service*)
 - ▶ Survey/Inventory Water Supply/Water Dischargers including WWTPs (*State/U.S. EPA*)
 - ▶ ANS Ballast Water Issues (*USCG/USEPA*)
 - ▶ ANS Controls (*USGS/USFWS*)
 - ▶ Survey Great Lakes Fisheries (*USFWS/NOAA*)
 - ▶ Early Detection and Rapid Response (*USGS/USFWS*)
 - ▶ Hydrologic and historical data (*State DNRs*)
 - ▶ ANS biology expertise (*USFWS, USGS, State DNRs*)



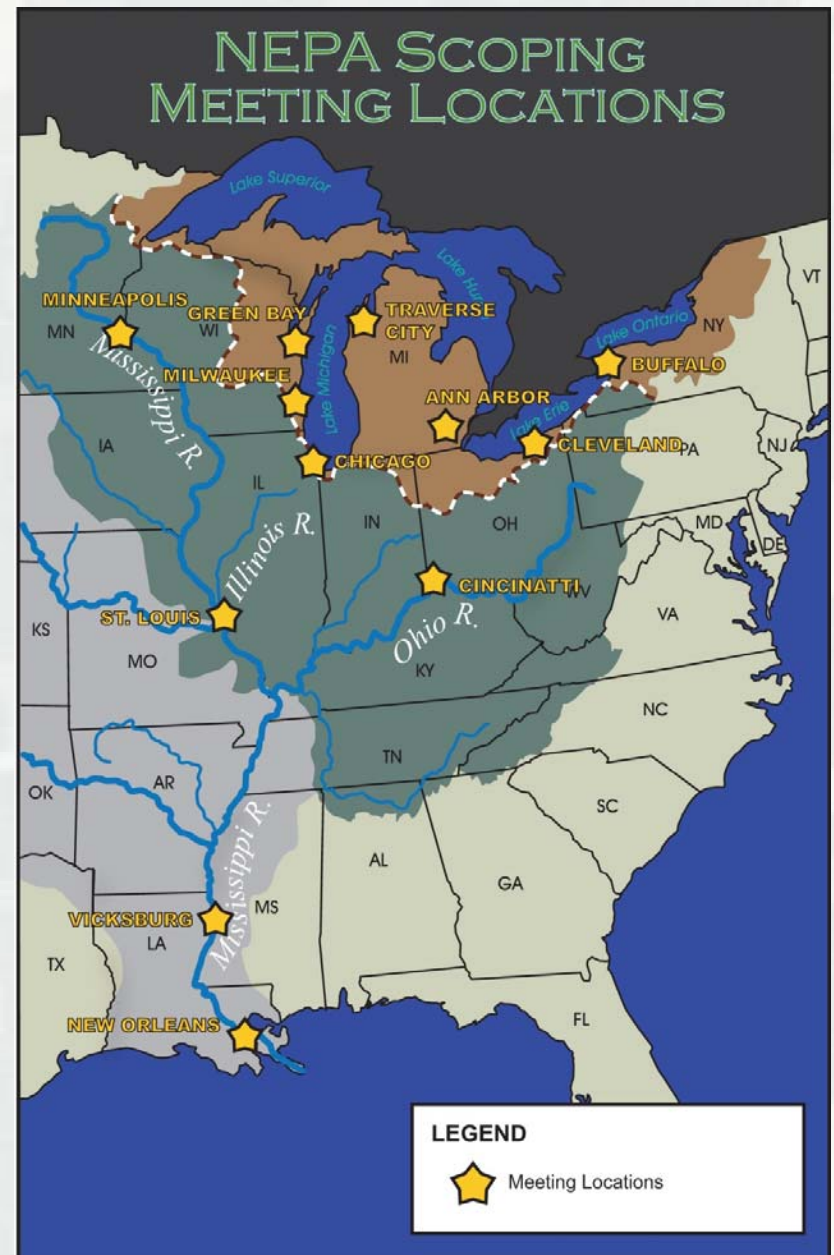
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Other Ways to Provide Input & Stay in Touch

■ NEPA Scoping Process

► Regional locations

- | | |
|---------------------|-------------------|
| • Chicago, IL | December 15, 2010 |
| • Buffalo, NY | January 11, 2011 |
| • Cleveland, OH | January 13, 2011 |
| • St. Paul, MN | January 20, 2011 |
| • Green Bay, WI | January 25, 2011 |
| • Traverse City, MI | January 27, 2011 |
| • Cincinnati, OH | February 1, 2011 |
| • Ann Arbor, MI | February 3, 2011 |
| • St. Louis, MO | February 8, 2011 |
| • Vicksburg, MS | February 10, 2011 |
| • Milwaukee, WI | February 15, 2011 |
| • New Orleans, LA | February 17, 2011 |



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Other Ways to Provide Input & Stay in Touch

- Website

**Learn more about GLMRIS &
Submit Comments**

<http://glmris.anl.gov>



- Social Media

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