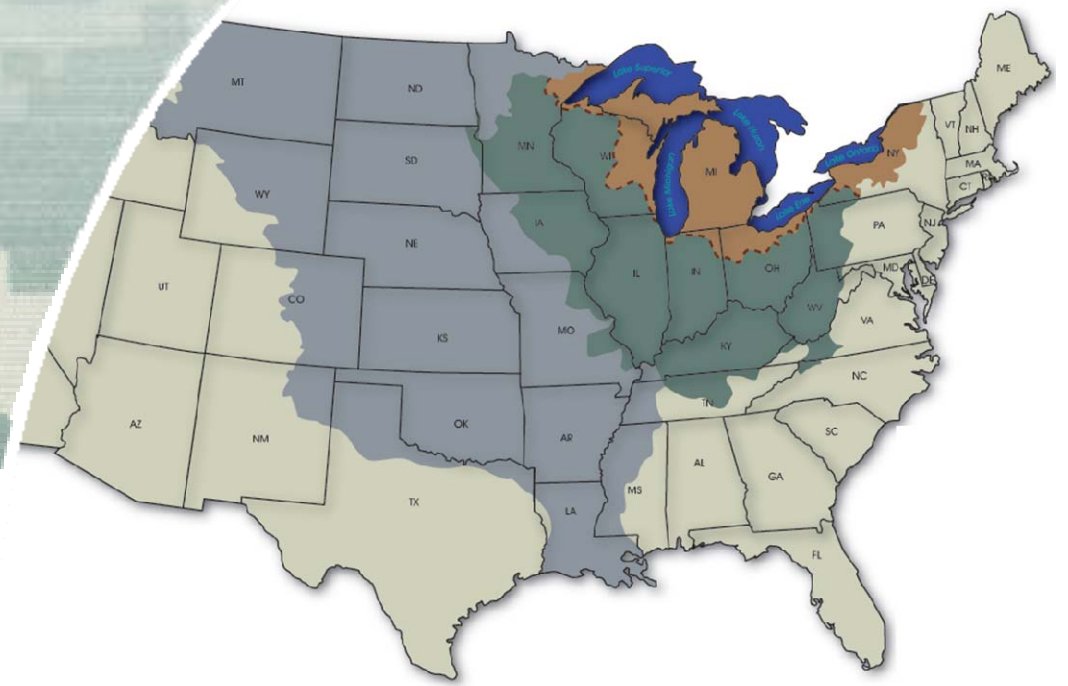


# Great Lakes & Mississippi River Interbasin Study GLMRIS

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USACE Chicago District



US Army Corps of Engineers  
**BUILDING STRONG**

# GLMRIS

## 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
- ▶ 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 17 U.S. states	Canada
Elements	Analysis of <b>options/technologies to prevent/ reduce risk of interbasin transfer</b> 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
  - ▶ 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

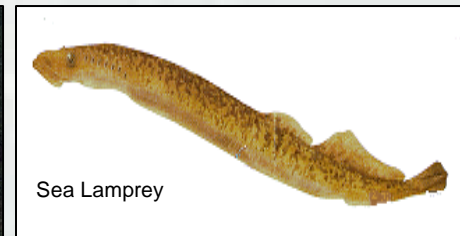




# GLMRIS

## 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 or reduce the risk of ANS transfer between basins, via aquatic pathways
  - ▶ Includes evaluation of hydrologic separation of the basins



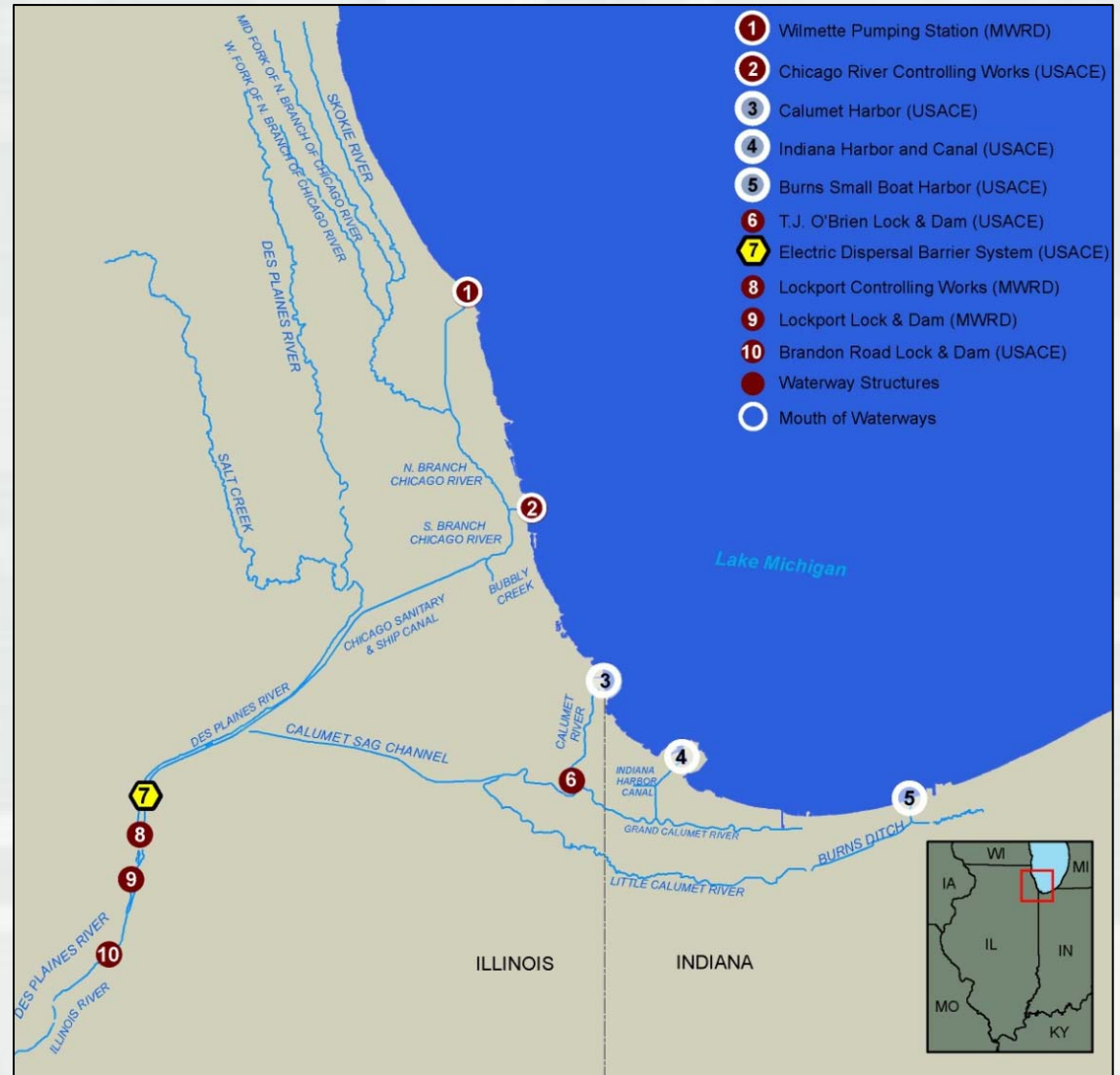
# CAWS

## 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 Stmtnt
  - ▶ Record of Decision

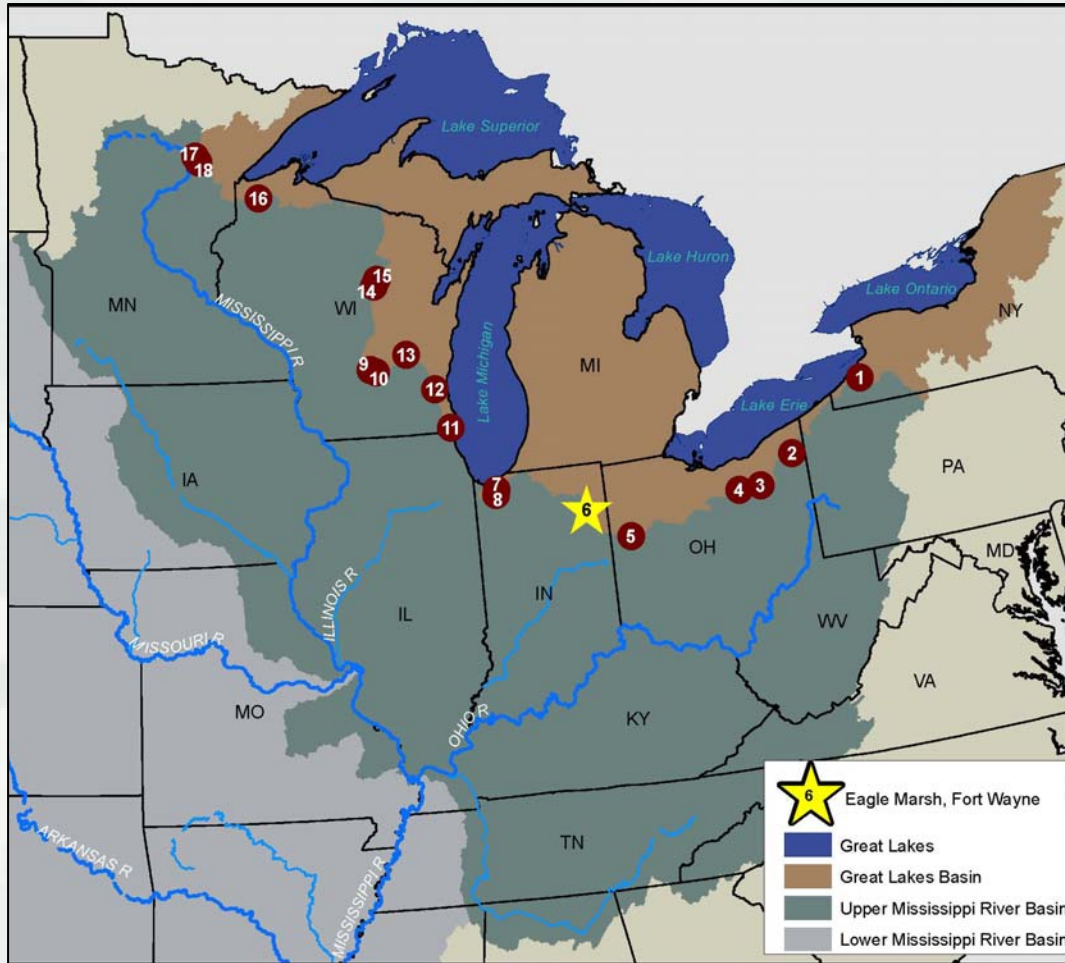
### Collaboration

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



# Other Pathways

## Focus Area II



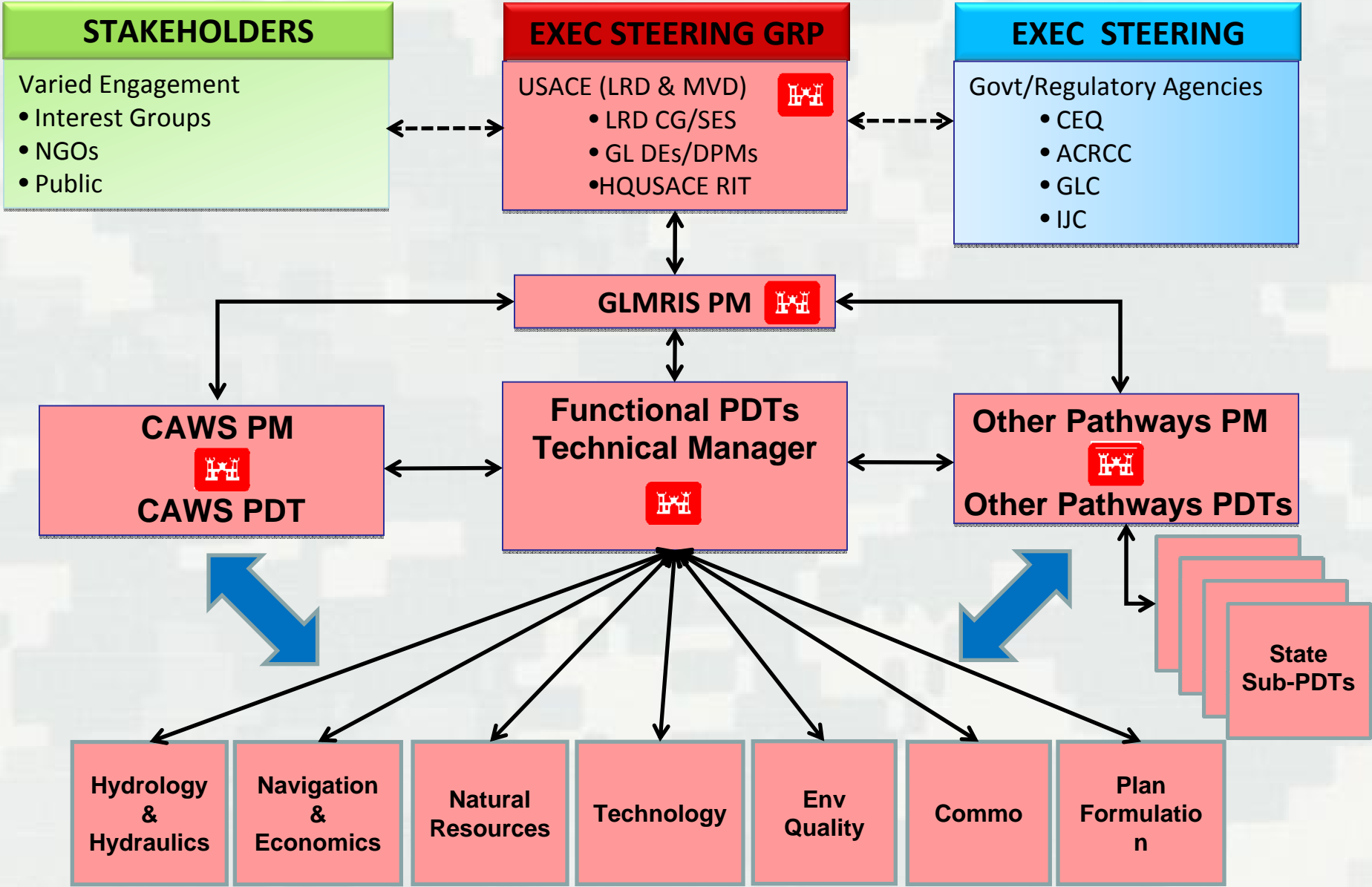
## Preliminary Risk Characterization

- 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 Management Team



# GLMRIS

## Accomplishments to Date

### Proj Mgmt Plan Development

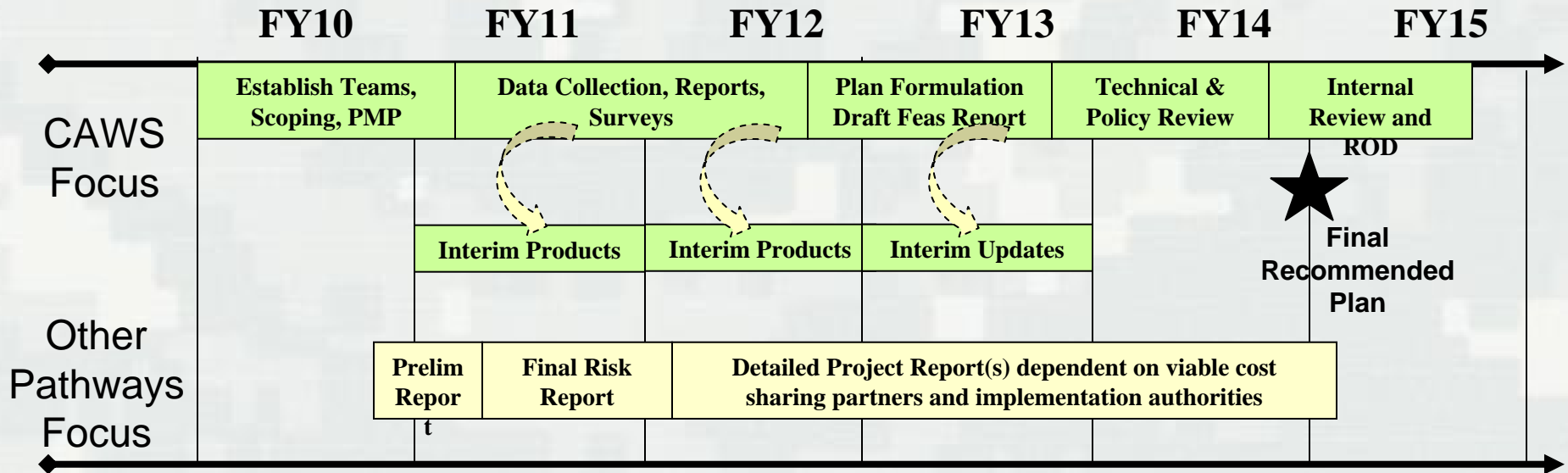
- Jun 09 – Receipt of funds
- Sep 09 – multi-district kick-off
- Nov 09 – Estbl PDT & Spt Teams
- Dec 09 – Begin PMP development
- Jan 10 – Agency scoping meeting
- Jan 10 – Develop plan formulation
- Mar to Nov 10 – Prep/Final PMP
- Jun 10 – Tribal meeting
- Jul 10 – Draft PMP to ESC mbrs
- Aug 10 – Conduct ESC workshop
- Nov 10 – Complete PMP

### Simultaneous Execution

- Literature Review
- Data Collection
- eDNA and fish barrier efficacy study and research
- 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

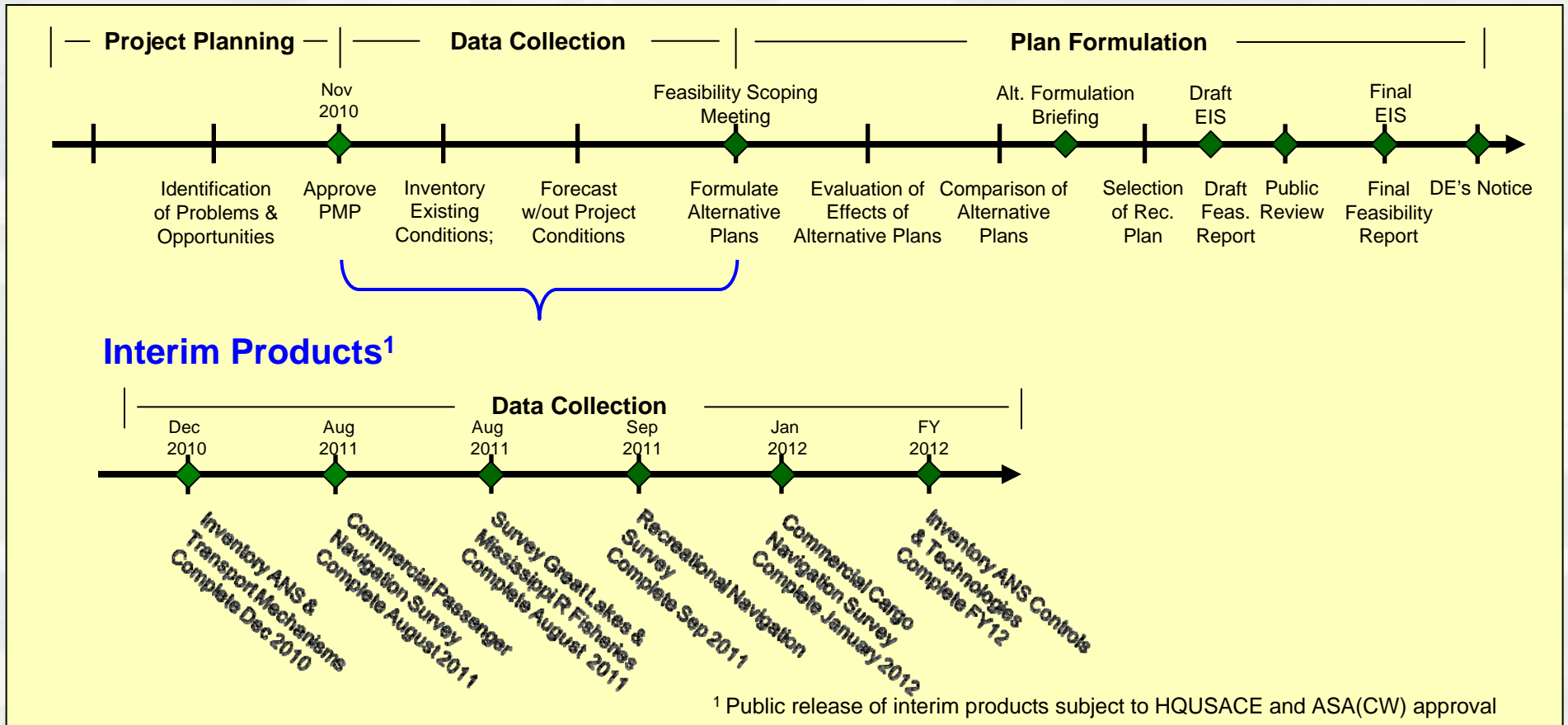
- Data Collection Fall 2010 - Summer 2012
- Plan Formulation Summer 2012 – Summer 2013
  - Hydrologic Separation
  - Legal and Political Controls
  - Behavioral Controls
- Technical and Policy Review Summer 2013 – Summer 2014
  - Draft Feasibility Report and EIS, Alternatives Formulation Briefing, Independent External Peer Review
- Final Feasibility Report and EIS by Fall 2014
- Record of Decision in 2015

## 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



# CAWS – Planning Study Implementation Process



## Example: Other Agency Work to Support GLMIRS

USGS - Understanding Asian carp & bluegreen algae dynamics

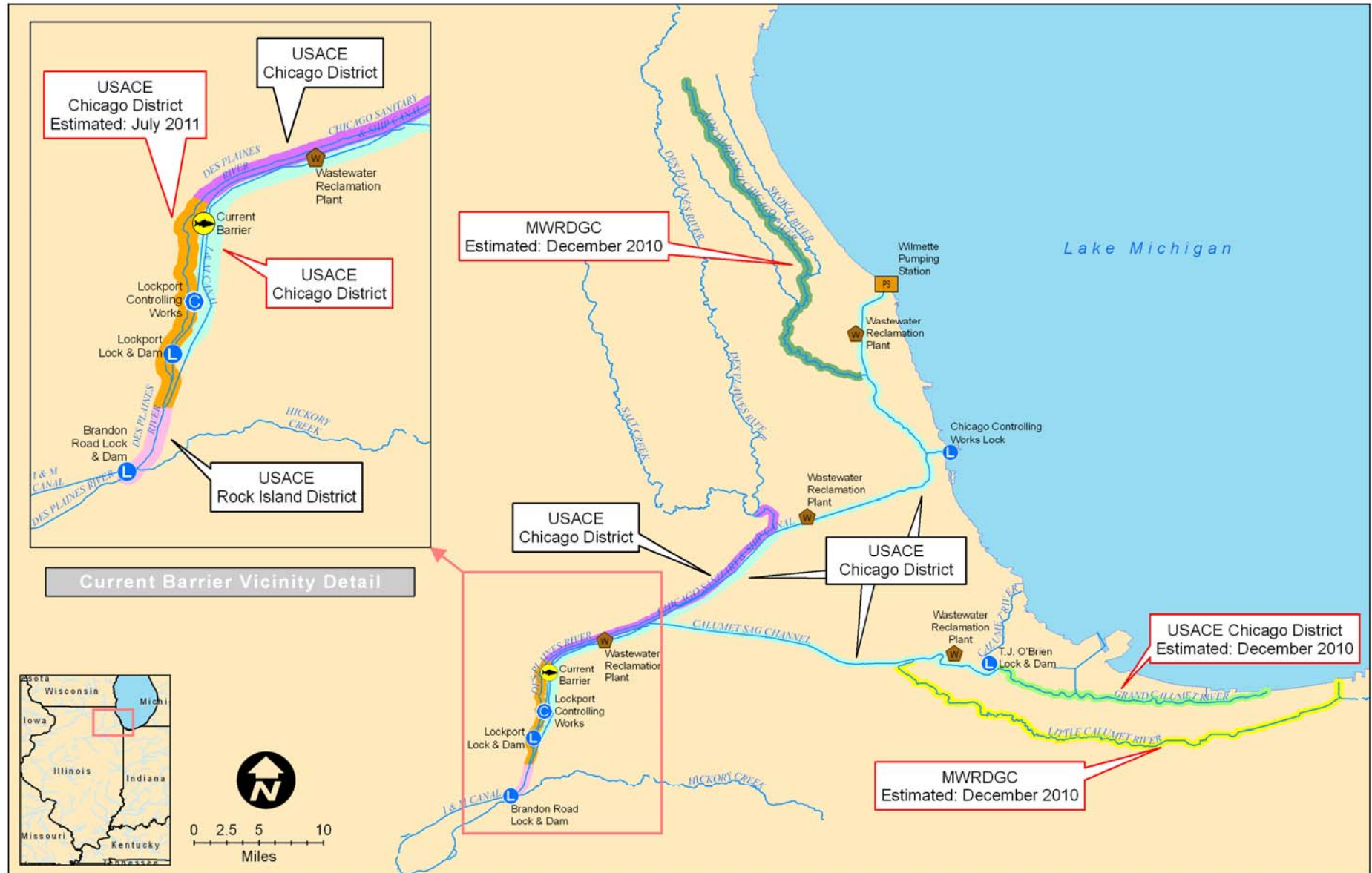
USGS – Great Lakes’ tributary assessment for Asian carp habitat suitability

USGS – Risk assessment of Asian carp establishment in the Great Lakes based on available food sources





# GLMRIS – CAWS Interim Products: Hydraulics & Hydrology Models



# “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*)



# GLMRIS

## Other Ways to Provide Input & Stay in Touch

- NEPA Scoping Process
  - ▶ First meeting – Gleacher Center, Chicago. December 15, 2010
  - ▶ Regional locations to follow

- Website

**Submit Comments:**

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



- Social Media

**Join the Conversation!**



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