

A topographic map of the Great Lakes region is shown in the upper left corner, with a green semi-transparent overlay covering the rest of the slide. The map shows the outlines of the five Great Lakes and the surrounding terrain.

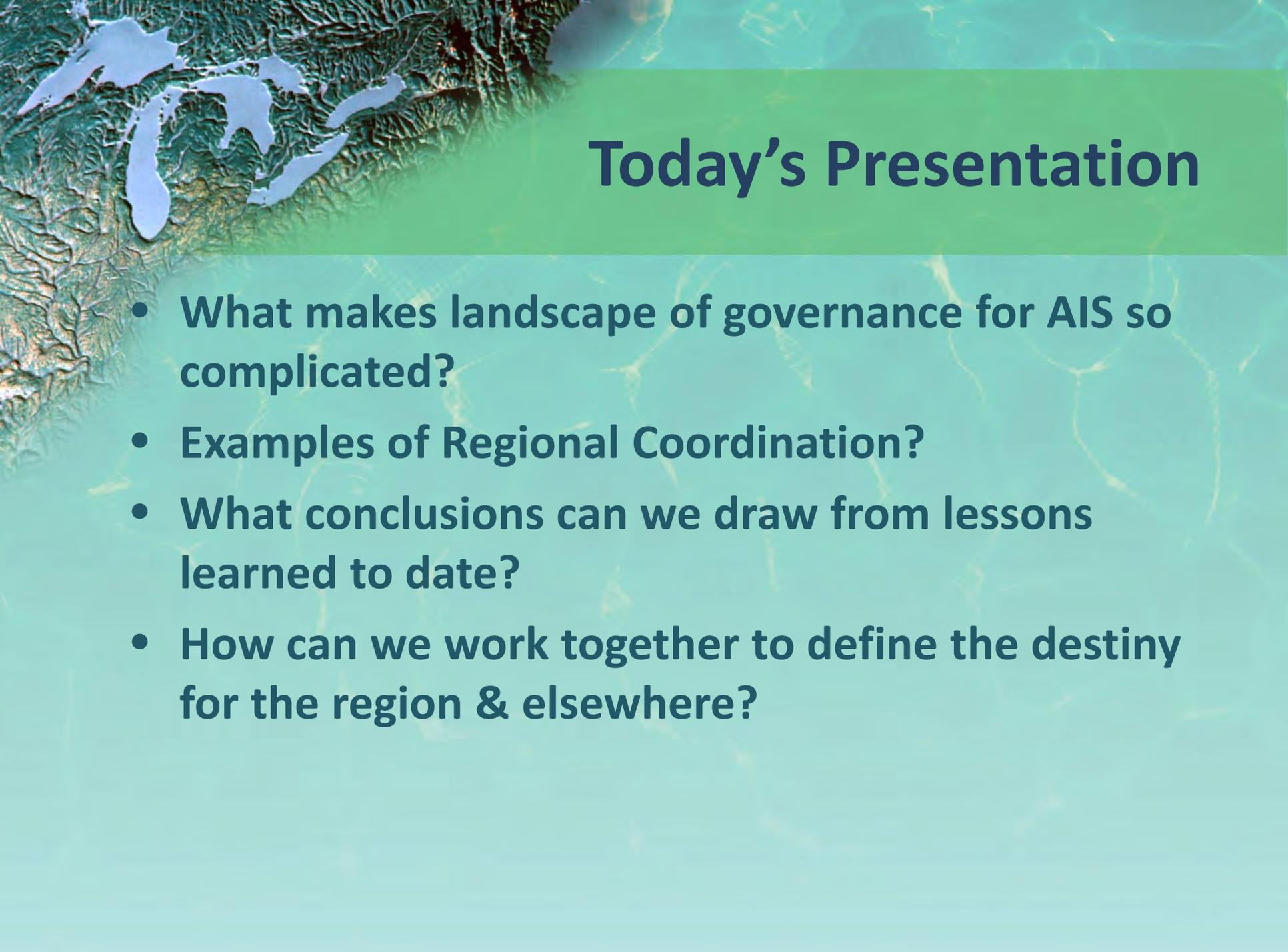
# **Regional Coordination Efforts for Aquatic Invasive Species (AIS)**

**Kevin Irons, Illinois DNR**

**Tammy Newcomb, Michigan DNR**

**Midwest Association of Fish & Wildlife Agencies**

**June 24, 2014**

An aerial topographic map of the Great Lakes region, showing the five lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding terrain. The map is overlaid with a semi-transparent green rectangular area that contains the title and the list of topics.

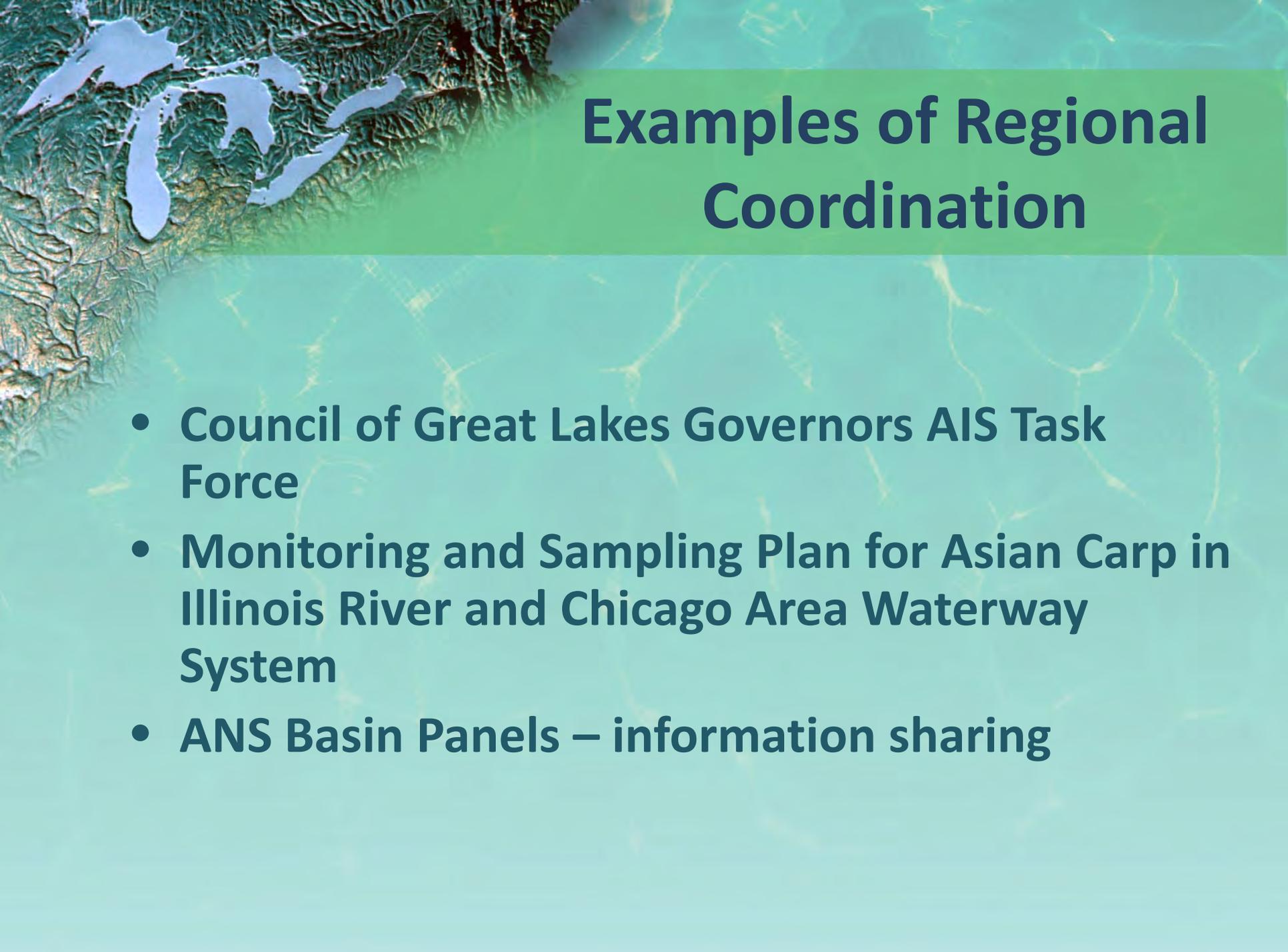
# Today's Presentation

- **What makes landscape of governance for AIS so complicated?**
- **Examples of Regional Coordination?**
- **What conclusions can we draw from lessons learned to date?**
- **How can we work together to define the destiny for the region & elsewhere?**



# Landscape of AIS Management

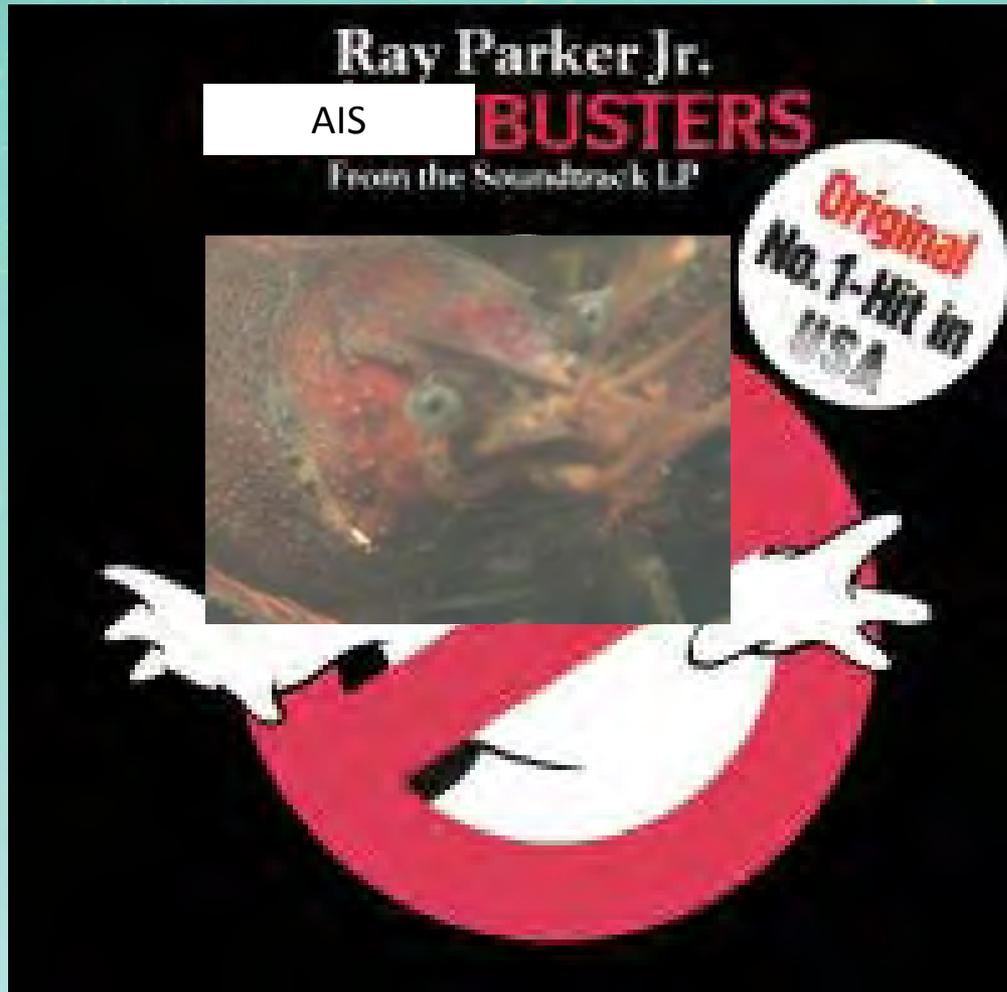
- Aquatic Nuisance Species Program (USFWS -national)
  - Army Corp of Engineers
  - Environmental Protection Agency
  - USFWS Region 3 and 5
- 
- International Joint Commission
  - Great Lakes Commission
  - Great Lakes Fishery Commission
  - Great Lakes Water Quality Agreement
- 
- State Agencies (multiple)
  - Council Great Lakes Governors AIS Task Force
  - Aquatic Nuisance Species Panels



# Examples of Regional Coordination

- **Council of Great Lakes Governors AIS Task Force**
- **Monitoring and Sampling Plan for Asian Carp in Illinois River and Chicago Area Waterway System**
- **ANS Basin Panels – information sharing**

# “Who You Gonna Call?”



A topographic map of the Great Lakes region, showing the five Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding landmasses. The map is rendered in shades of green and brown, highlighting the terrain. The map is partially obscured by a green horizontal band.

*Council Great Lakes Governors  
Aquatic Invasive Species Task Force*

**Mutual Aid Agreement for Combating  
Aquatic Invasive Species Threats to  
the Great Lakes and St. Lawrence  
River Basin**

A topographic map of the Great Lakes region, showing the five lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding landmasses. The map is rendered in shades of green and brown, highlighting the terrain. It is positioned in the upper left corner of the slide.

# Task Force Members

**IL: Kevin Irons, Vic Santucci**

**IN: Eric Fischer, Bill James, Doug Keller**

**MI: Tammy Newcomb, Roger Eberhardt, Sarah LeSage**

**MN: Elizabeth Gawryns, Ann Pierce, Jeff Stollenwerk**

**NY: Don Zelazny**

**OH: Rich Carter, John Navarro, Jeff Tyson, Scott Zody**

**ONT: Ala Boyd, Bill Carr, Ranissah Samah**

**PA: John Booser, James Grazio**

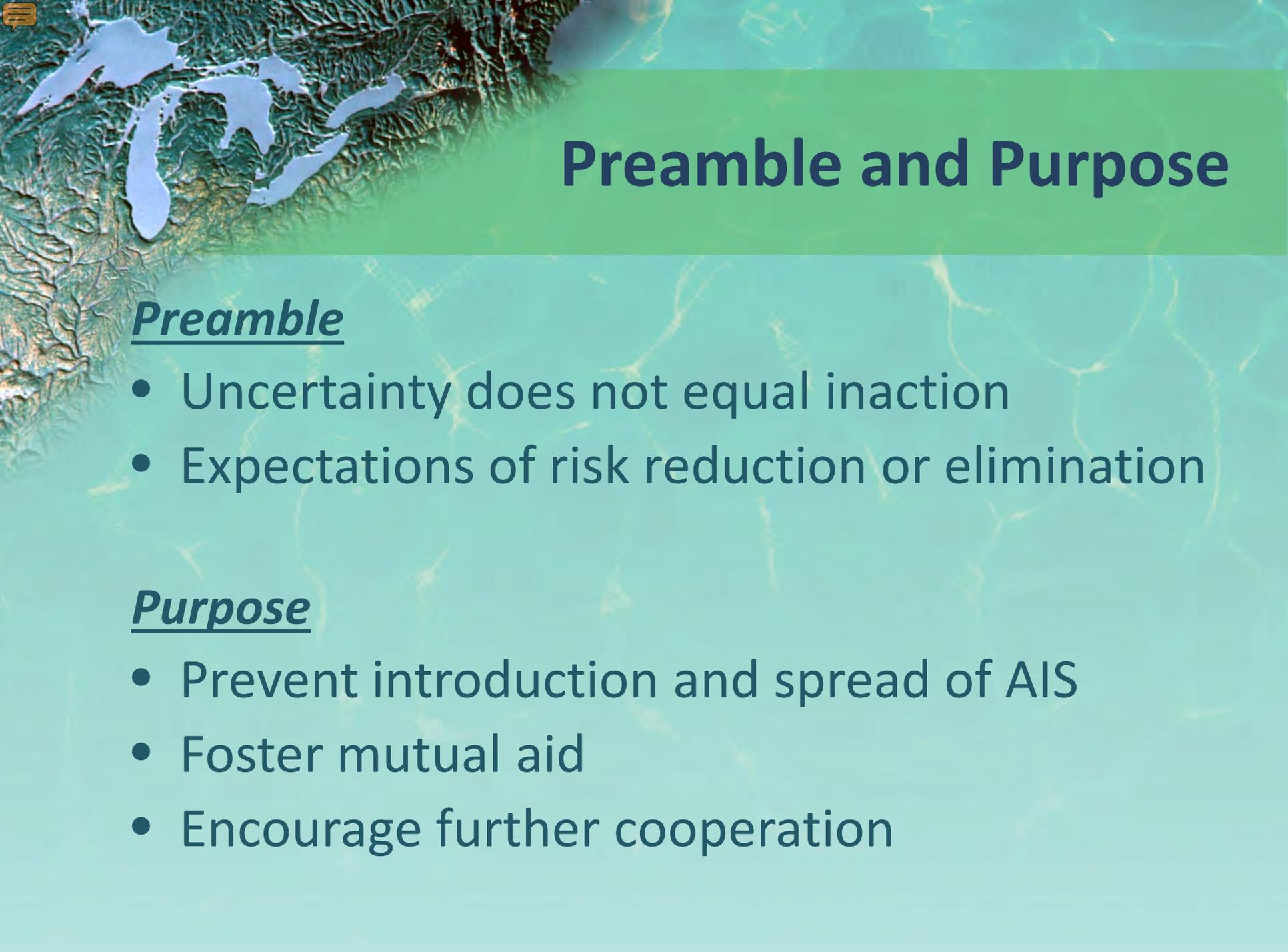
**QUE: Isabelle Desjardins, Eve Joseph, Louise Lapierre, Isabelle Simard**

**WI: Steve Galarneau, Phil Moy, Susan Sylvester, Bob Wakeman**



## **Eight Steps to a Mutual Aid Agreement in < 12 Months**

1. Governor's Summit 5/2013
2. Contract w/Great Lakes Fishery Commission 8/2013
3. Development of first draft 12/2013
4. Working review meeting 1/2014
5. Draft cleared for stakeholder review 2/2014
6. Continued revisions, legal review 3/2014
7. Translation; hiccups; final document 4/2014
8. Governor's Meeting 4/26/2014



# Preamble and Purpose

## Preamble

- Uncertainty does not equal inaction
- Expectations of risk reduction or elimination

## Purpose

- Prevent introduction and spread of AIS
- Foster mutual aid
- Encourage further cooperation



# Protocols for Requesting Aid

## *Requesting Party Responsibilities*

- Detection, Action Determination & Implementation, Communication

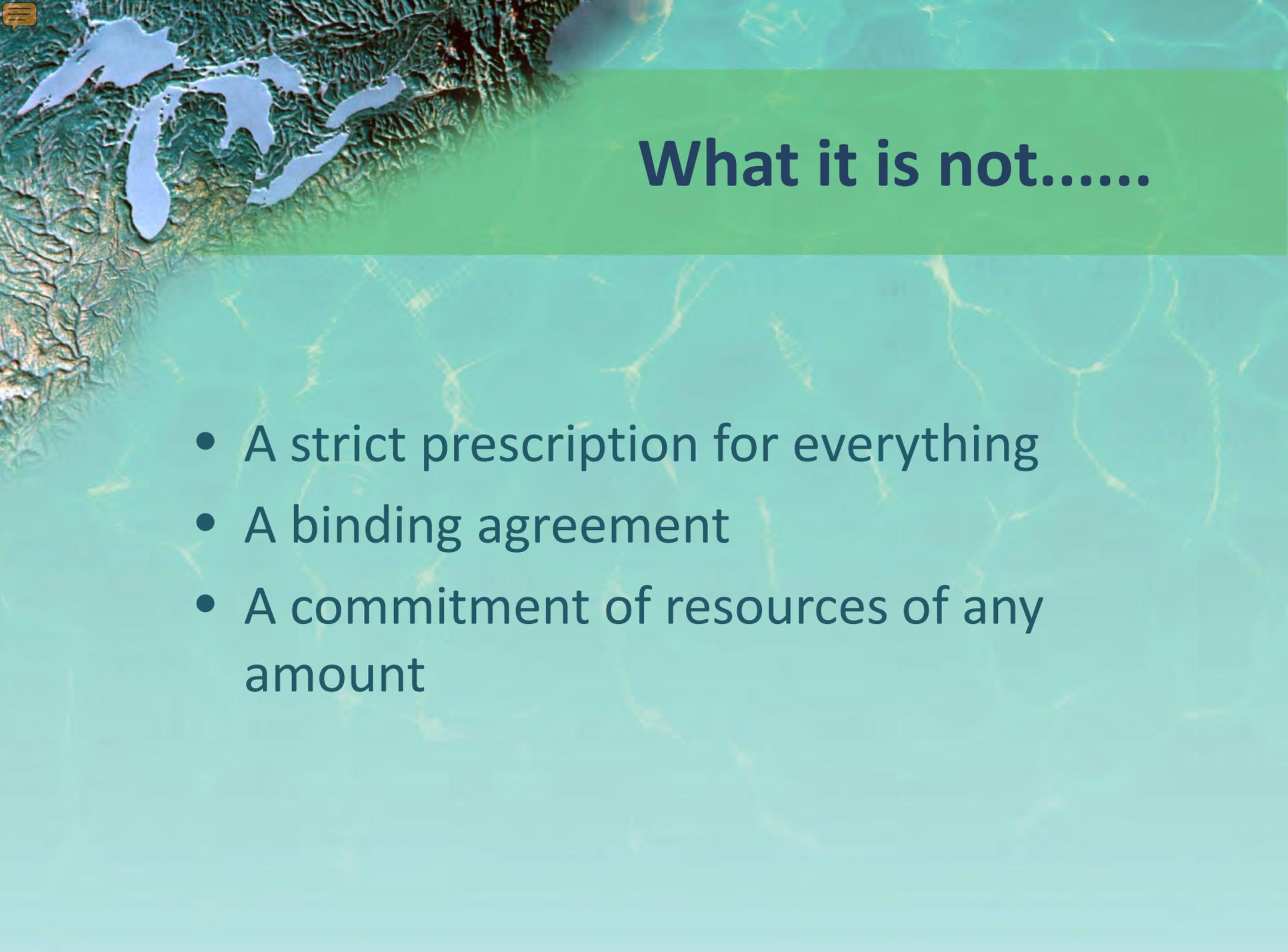
## *Other Party Responsibilities*

- Action Implementation

A topographic map of the Great Lakes region, showing the five lakes (Superior, Michigan, Huron, Erie, and Ontario) in white and the surrounding landmasses in shades of green and brown, indicating elevation. The map is partially obscured by a green semi-transparent banner.

# Cooperative Protocol for Information and Readiness

- Staff contacts & inventories, etc.
- Sharing of scientific research & expertise
- State & Province AIS Action plans
- Procedures for resource sharing
- Reporting

A topographic map of Michigan is shown in the upper left corner, with a green semi-transparent overlay covering the right side of the slide. The text "What it is not....." is centered in the green area.

## What it is not.....

- A strict prescription for everything
- A binding agreement
- A commitment of resources of any amount



# Operationalization of Mutual Aid Agreement

## CGLG AIS Task Force will:

- Monitor implementation of all measures
- Prepare standardized procedures or protocols
- Address permits and other licensing issues

## First Actions

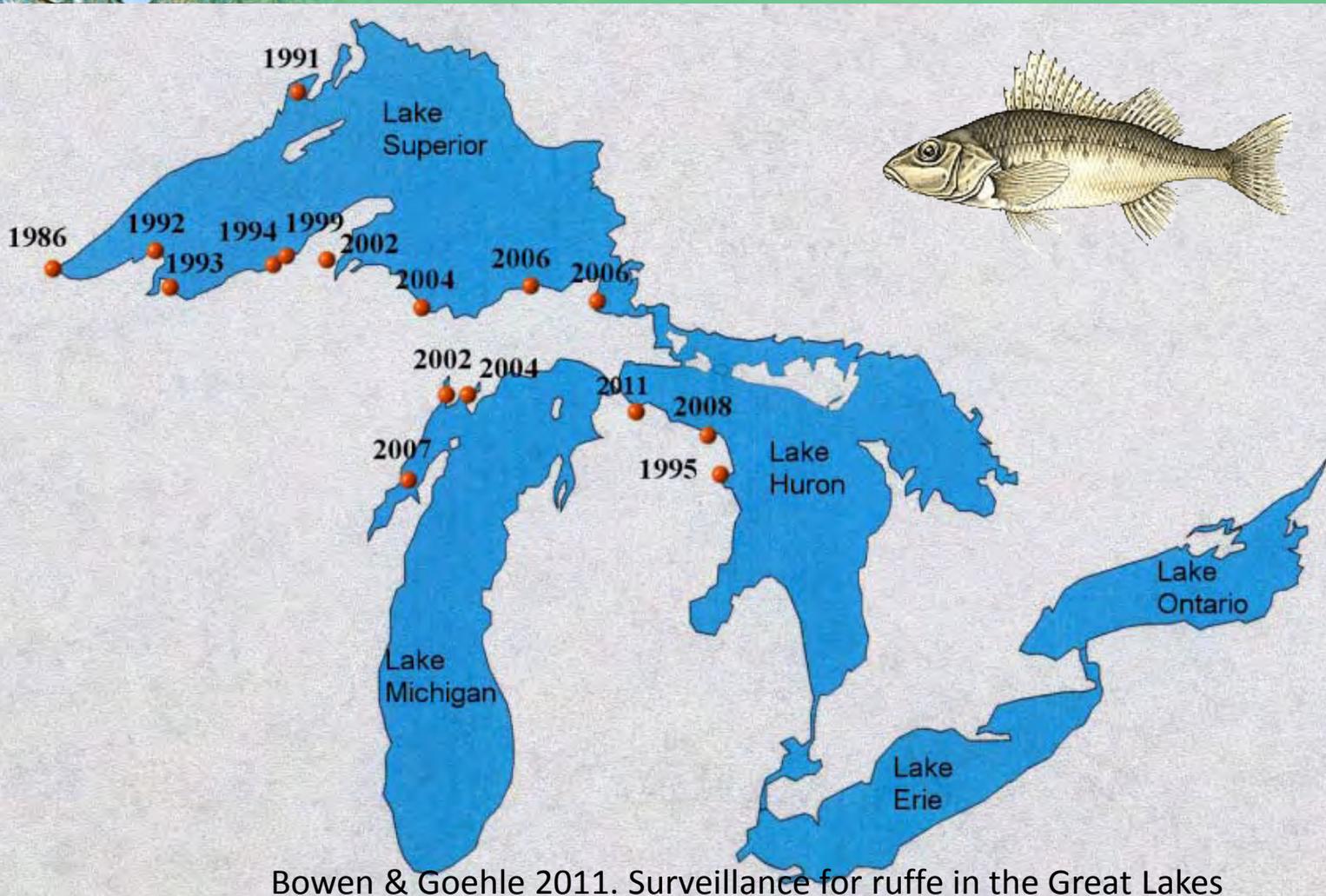
- Illinois first action in June
- Michigan/Ohio in fall



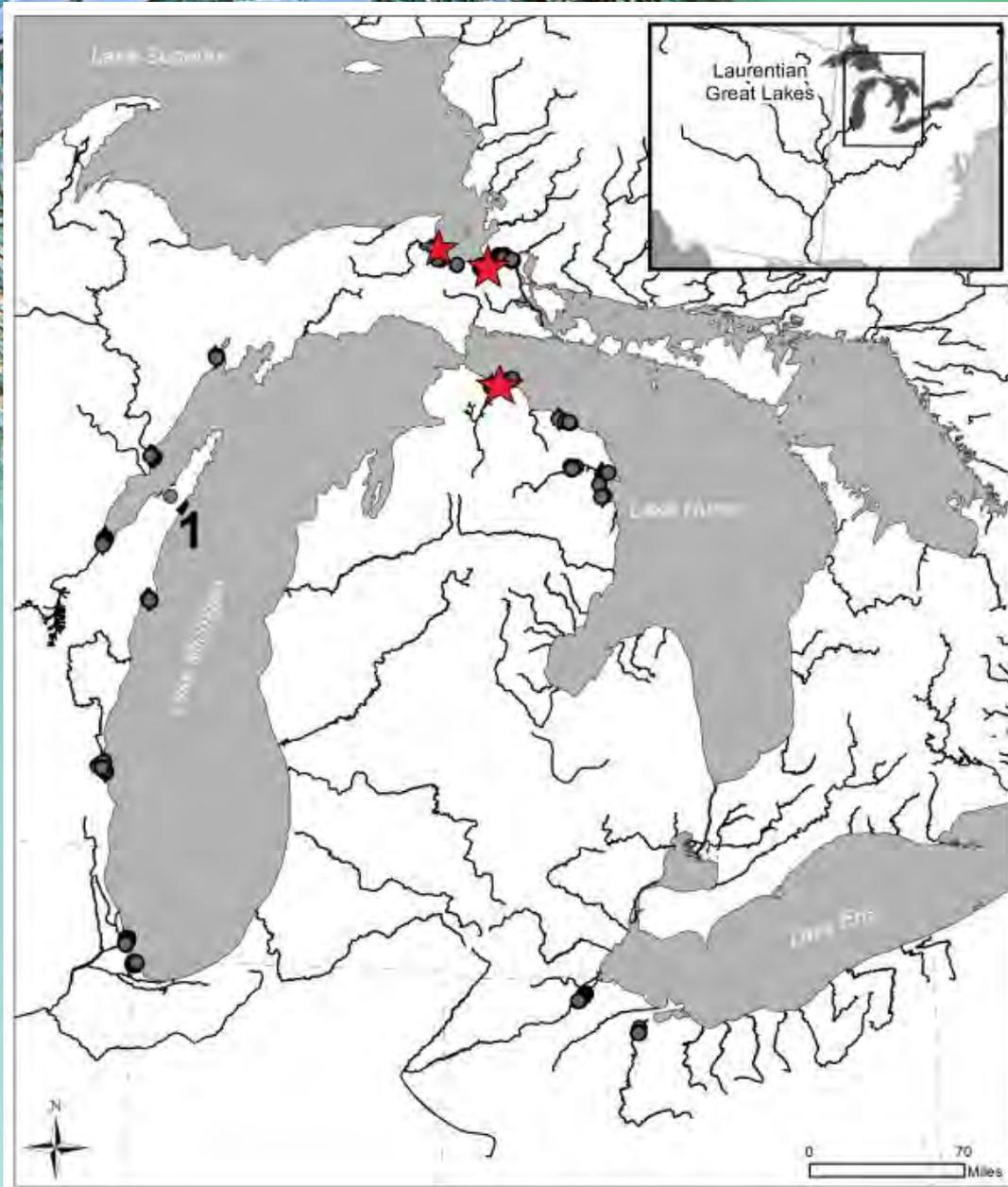
**The Mutual Aid Agreement can  
be found at:**

**[www.cglg.org](http://www.cglg.org)**

# Eurasian Ruffe in Great Lakes



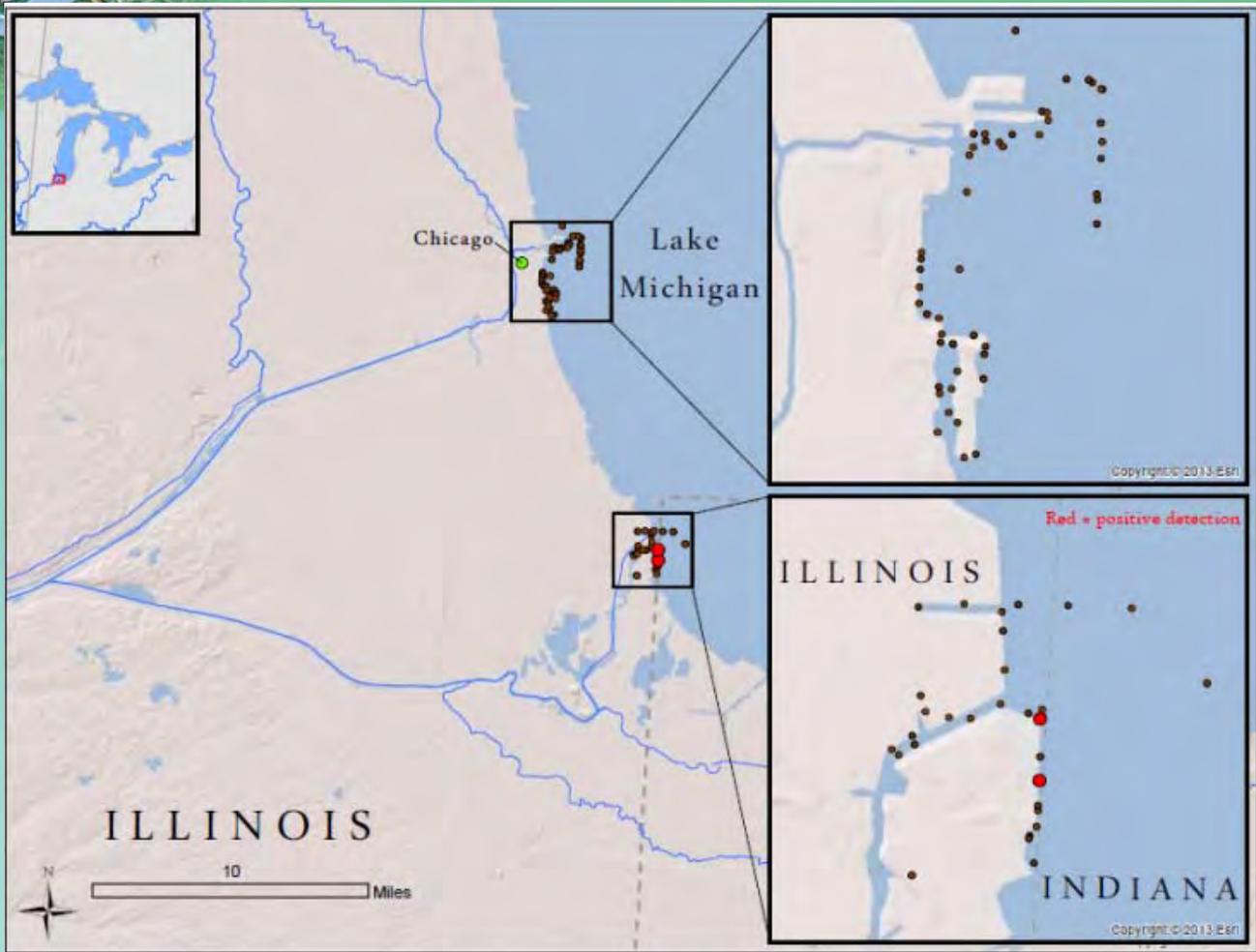
Bowen & Goehle 2011. Surveillance for ruffe in the Great Lakes



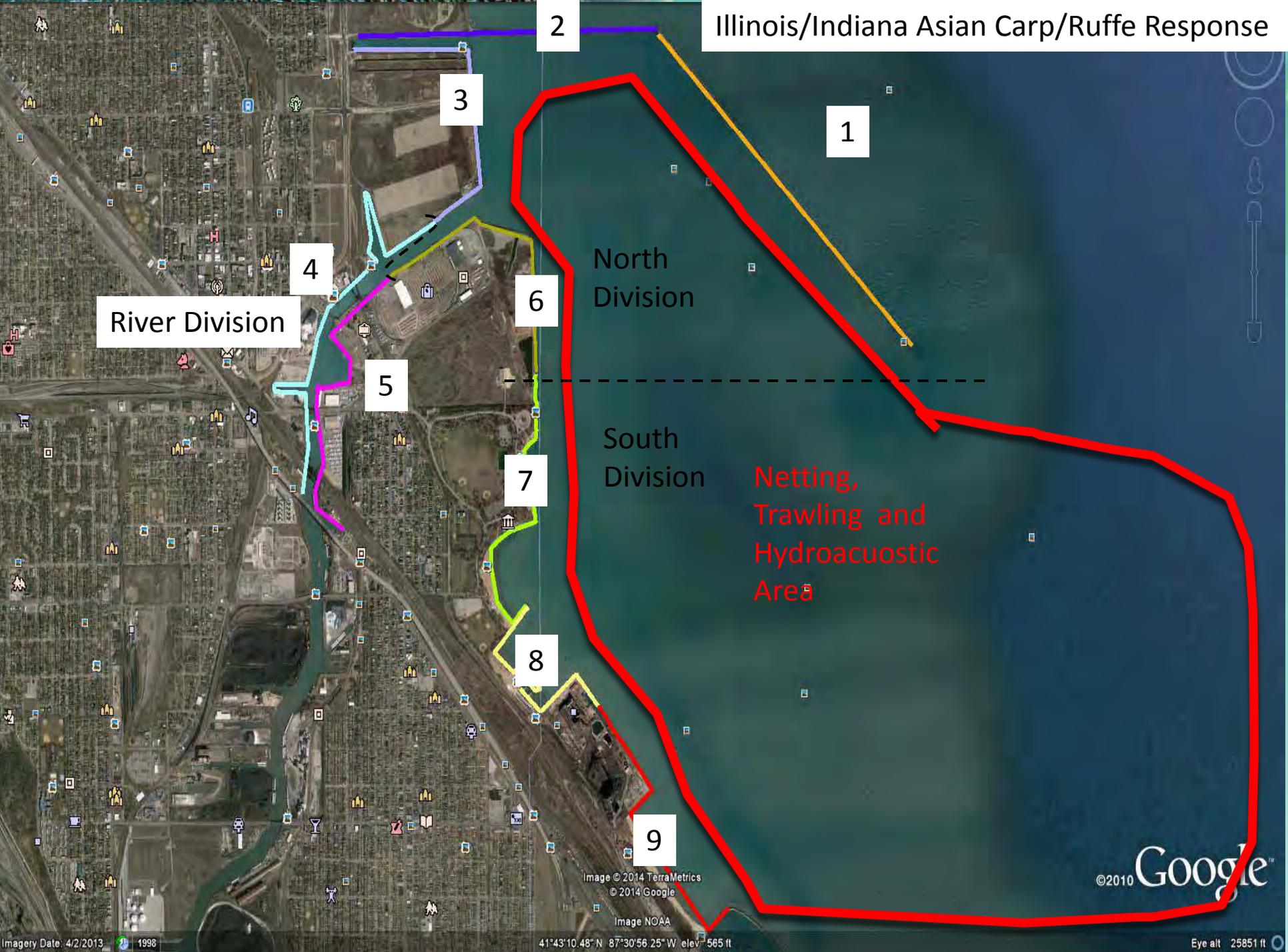
# eDNA surveillance

Fall 2012-Spring 2013

N = 1500



# Illinois/Indiana Asian Carp/Ruffe Response



River Division

North Division

South Division

Netting,  
Trawling and  
Hydroacoustic  
Area

2

3

1

4

5

6

7

8

9

Image © 2014 TerraMetrics  
© 2014 Google

Image NOAA

41°43'10.48" N 87°30'56.25" W elev: 565 ft

©2010 Google

Imagery Date: 4/2/2013 1998

Eye alt 25851 ft

Resources arrived at Calumet Harbor,  
were checked in



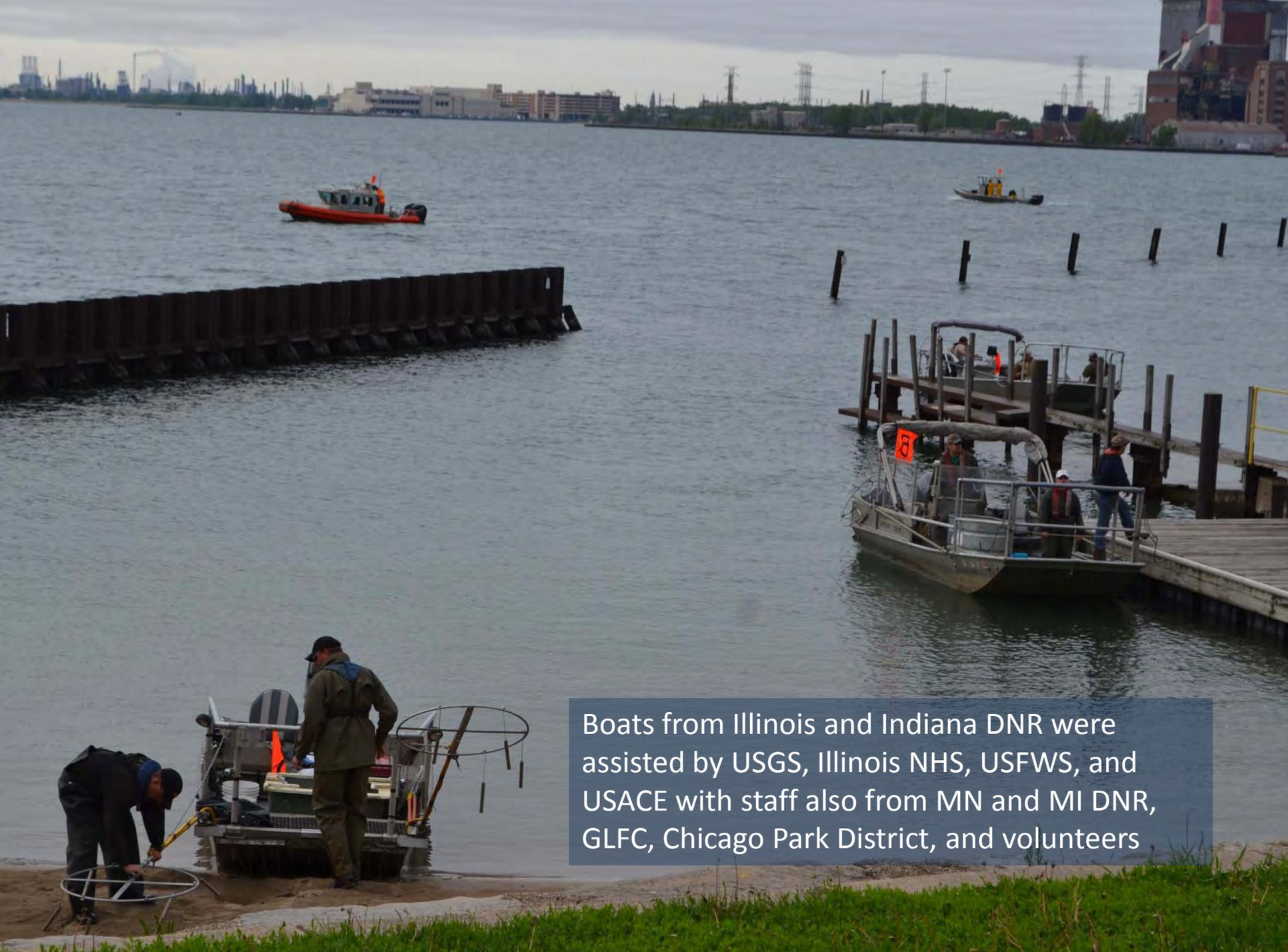
Boats were assigned numbers and given radios/flares as necessary



A heated power wash and chlorine was available for decontamination if necessary







Boats from Illinois and Indiana DNR were assisted by USGS, Illinois NHS, USFWS, and USACE with staff also from MN and MI DNR, GLFC, Chicago Park District, and volunteers



USGS hydro-acoustic boat to assist with trawling surveys



INHS Lake Michigan micro mesh gill netting crew



Incident Management team documenting,  
documenting, documenting



IDNR Communication staff capturing moment



USACE electrofishing boat



Indiana DNR



USFWS Windermere traps





Safety boat with CPO and CMS communication team (Indiana IC accompanies). Chicago fire was present for other activities ;)



Indiana DNR finds large smallmouth bass  
(many captured during event)







Round gobies were present, not surprising.

This is a large individual.

Coming in for lunch....







Fish ID





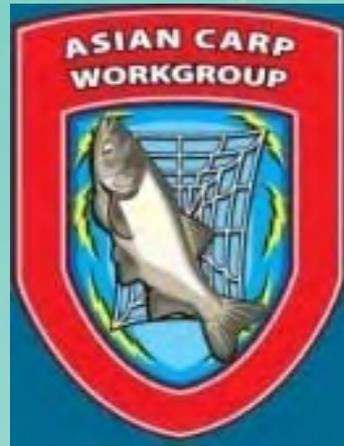
Media event



# Calumet Harbor Carp Ruffe Event Summary

<b>Gear</b>	<b>Effort</b>	<b>Total Species</b>	<b>Total Fish</b>
Day Electrofishing	53 Runs (13.25 hrs.)	23	665
Gill Nets	198 yards	5	62
Trawl	1.2 hrs.	1	116
Minnow Traps	3 sets	1	17
Windermere	5 sets	1	1

# ASIAN CARP: Monitoring and Response Work Group





**Goal:** *Prevent Asian carp from establishing self-sustaining populations in the CAWS and Lake Michigan*

**Objectives:**

- 1) Distribution and abundance**
- 2) Removal**
- 3) Identification, assessment, and reaction to any vulnerability in barriers**
- 4) Determination of the leading edge**
- 5) Improve understanding**

# Characterizing Risk – Feb 2014

## Distances from Lake Michigan

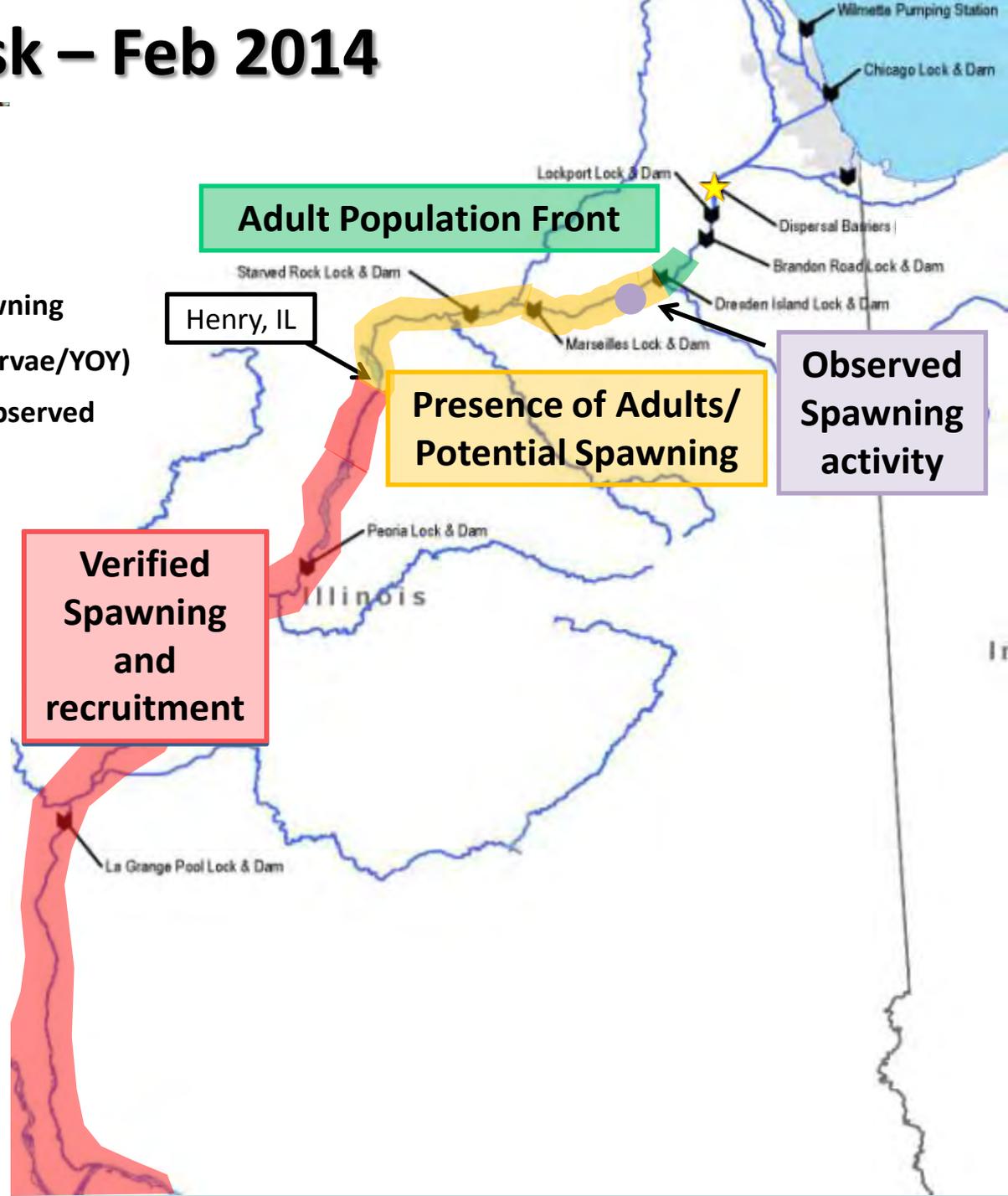
37 miles Dispersal barriers ★

55 miles Adult Population Front

62 miles Presence of Adults/Potential Spawning

64 miles Observed Spawning activity (no larvae/YOY)

143 miles Established population: Closest observed small Asian carp (Henry, IL in Peoria Pool)



# Monitoring and Response Plan for Asian Carp in the Upper Illinois River and Chicago Area Waterway System

May 2013

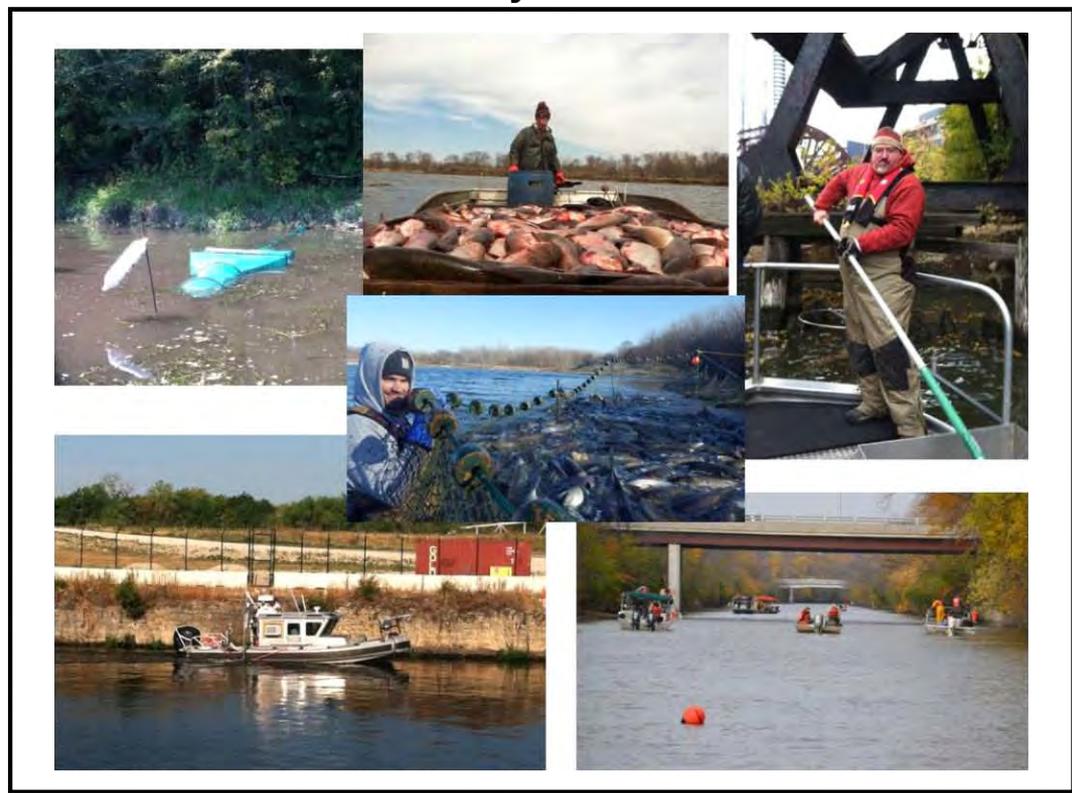
- Annual Plan

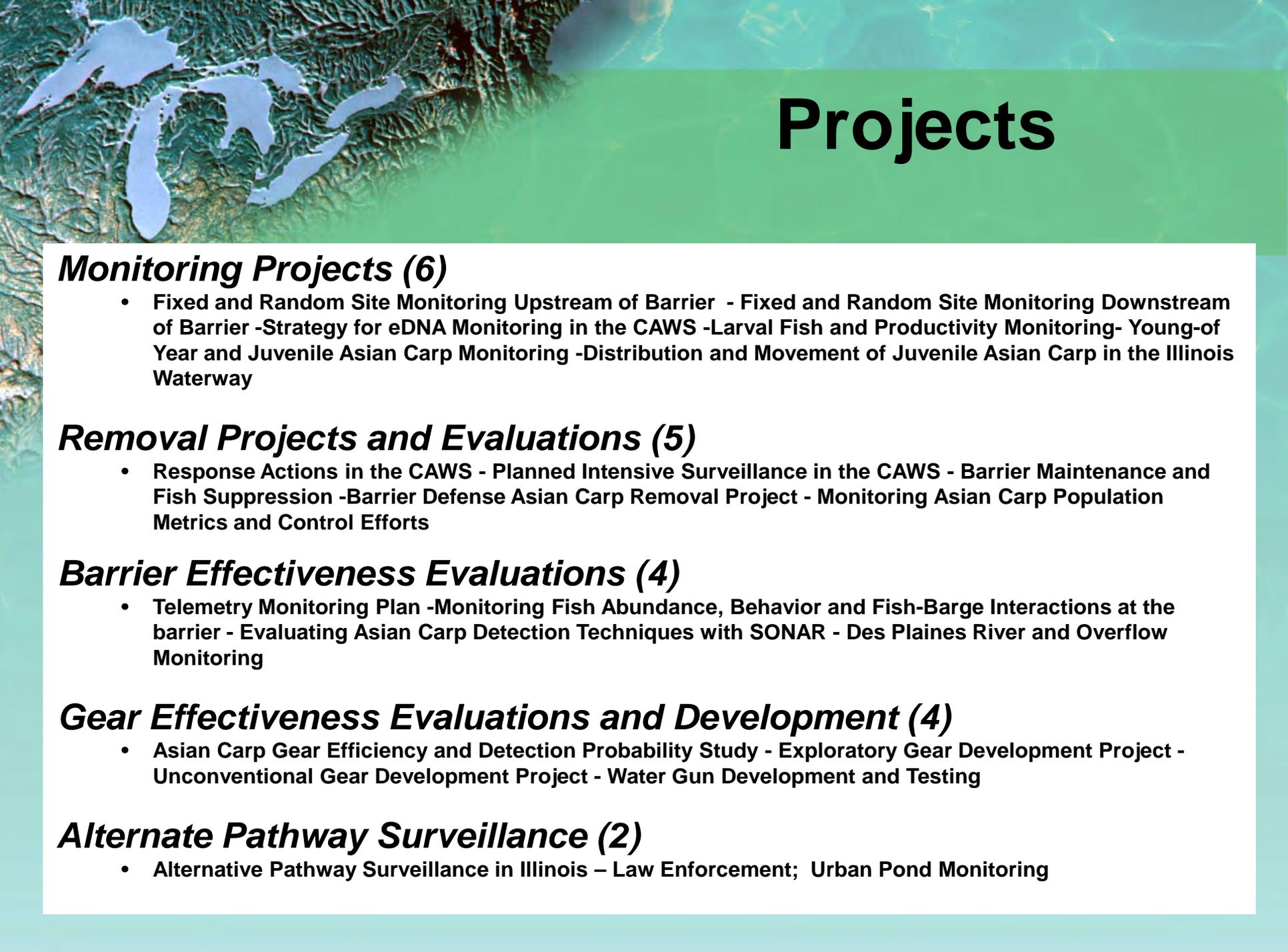
21 project plans, 75  
project objectives

Guides monitoring,  
removal operations,  
research , and  
protocols



<http://asiancarp.us>





# Projects

## ***Monitoring Projects (6)***

- Fixed and Random Site Monitoring Upstream of Barrier - Fixed and Random Site Monitoring Downstream of Barrier -Strategy for eDNA Monitoring in the CAWS -Larval Fish and Productivity Monitoring- Young-of Year and Juvenile Asian Carp Monitoring -Distribution and Movement of Juvenile Asian Carp in the Illinois Waterway

## ***Removal Projects and Evaluations (5)***

- Response Actions in the CAWS - Planned Intensive Surveillance in the CAWS - Barrier Maintenance and Fish Suppression -Barrier Defense Asian Carp Removal Project - Monitoring Asian Carp Population Metrics and Control Efforts

## ***Barrier Effectiveness Evaluations (4)***

- Telemetry Monitoring Plan -Monitoring Fish Abundance, Behavior and Fish-Barge Interactions at the barrier - Evaluating Asian Carp Detection Techniques with SONAR - Des Plaines River and Overflow Monitoring

## ***Gear Effectiveness Evaluations and Development (4)***

- Asian Carp Gear Efficiency and Detection Probability Study - Exploratory Gear Development Project - Unconventional Gear Development Project - Water Gun Development and Testing

## ***Alternate Pathway Surveillance (2)***

- Alternative Pathway Surveillance in Illinois – Law Enforcement; Urban Pond Monitoring

# Asian Carp Biomass Removed

2,137,640 lbs

*With more to come in 2014 (> 200k lbs so far)*

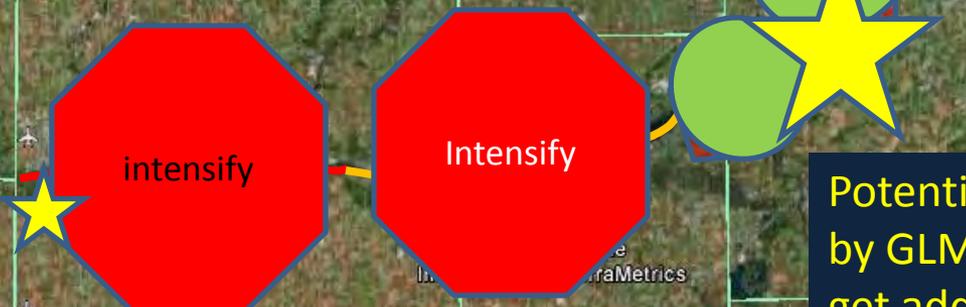


# Recommendation Regarding Sampling Above and Below Barrier

**2014** – Increased focus on leading edge and removal efforts.

Focus on immigration and bottlenecks for operational and technology applications recommendations

Spring and Fall sampling Above barrier - with focus areas



Potential bottlenecks as informed by GLMRIS and ongoing study will get additional attention



# 2014 Monitoring and Response Plan

- **Concentrate efforts below barrier for detection and action (seasonal above barrier)**
- **Monitor CAWS – fixed and random sites**
- **Evaluate potential GLMRIS alternatives that can be implemented**
- **Integrated Pest Management Operations**

# 2014 Monitoring and Response Plan *(continued)*

- USACE telemetry near barrier/SIU downstream
- eDNA monitoring
- Focus on leading edge and small fish locations
- Gear development
- Focus on fish behavior near electric barrier



# 2014 Monitoring and Response Plan *(continued)*

- Community outreach and enforcement
- Long term plan but open to annual informed modifications
- [Monthly updates via email and asiancarp.us](http://asiancarp.us)



# 2014 Additional Efforts

- Illinois DNR will host Michigan DNR for training in field efforts
- Illinois AND Indiana DNR worked with USFWS and others to implement Mutual Aid Agreement for ruffe (May)
- GLWQA Annex 6 (Invasive Species)

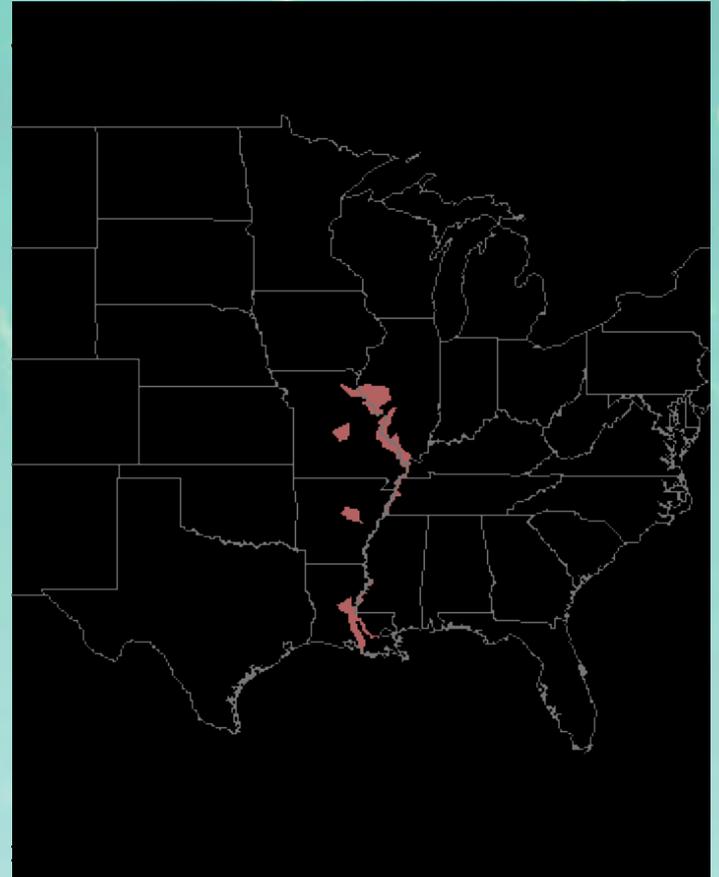


» MAA critical to future work



# Moving New Threat: Black Carp

- Commercial fishers from TN to IL capturing more black carp
- 13 of 14 reports were diploid
- Sizes approaching maturity (> 70 lb)
- Several states allow use of diploids in aquaculture





Danny Brown

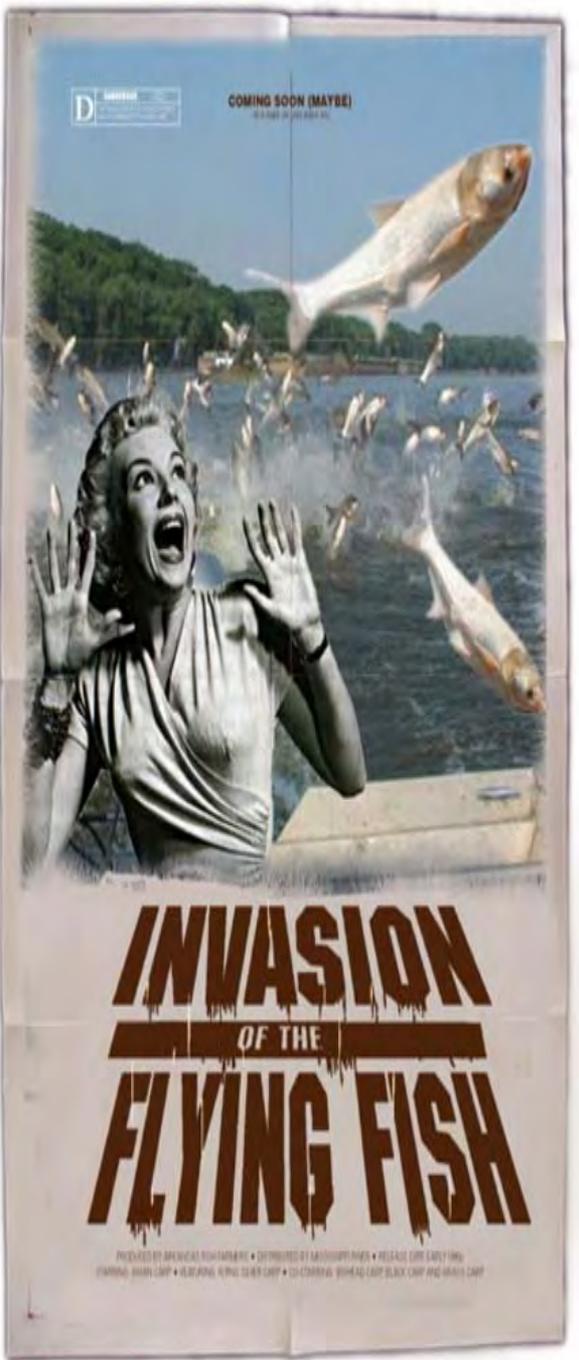
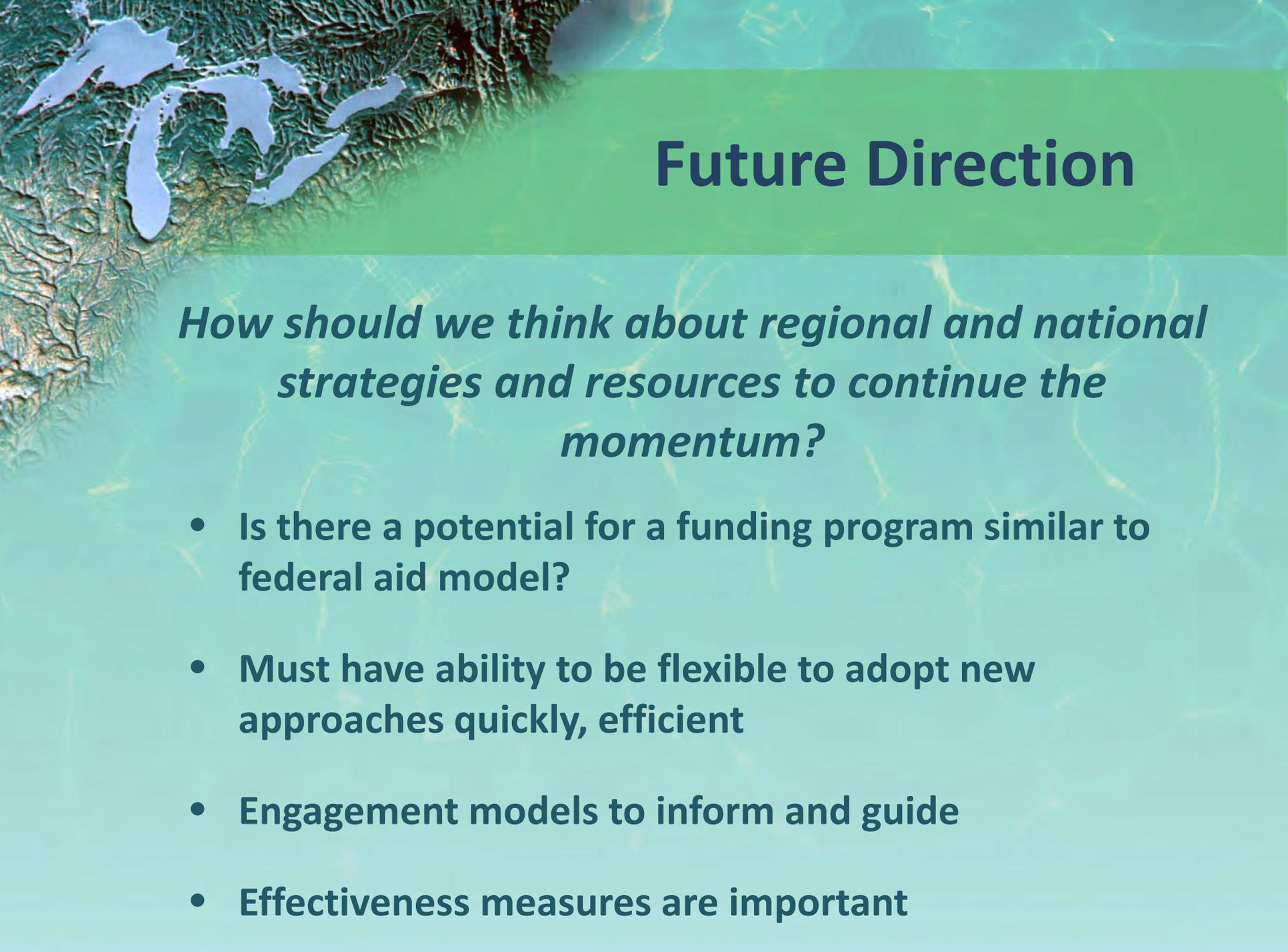


Photo  
Tha

# Conclusions

- **State leadership and authorities support, provide direction and bring resources to the table**
- **Federal partnerships are important to fulfill mission**
- **Need regional consistency in long term efforts**
- **Council of Great Lakes Governors' AIS Task force key to animated coordination**
- **Thanks to the directors and governors for united efforts in supporting this work**





# Future Direction

*How should we think about regional and national strategies and resources to continue the momentum?*

- Is there a potential for a funding program similar to federal aid model?
- Must have ability to be flexible to adopt new approaches quickly, efficient
- Engagement models to inform and guide
- Effectiveness measures are important



**Are we doing all we can do to move  
the needle on effectiveness for  
invasive species management for our  
future generations?**