



 **DEQ** 

Michigan's Invasive Species Program

Tammy J. Newcomb, Ph.D.  
Senior Water Policy Advisor  
March 16, 2017

## What is an Invasive Species?

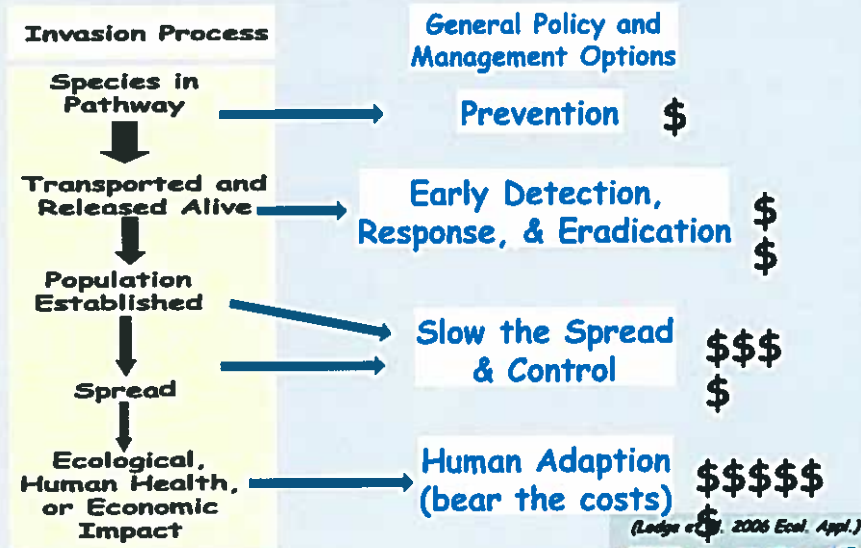
- *A species that is not native and whose introduction causes, or is likely to cause harm to the economy, environment, or human health.*
- **Non-native versus invasive**



## Costs are Ecological, Social, & Economic



## A Model for Planning & Action



## Michigan's Invasive Species Program is a Collaborative & Coordinated Effort!

- Department of Agriculture & Rural Development, Environmental Quality, & Natural Resources
  - Aquatic Core Team, Terrestrial Core Team
  - Michigan Invasive Species Grants Program
  - Aquatic Plan and Terrestrial Plan
- Engagement throughout region

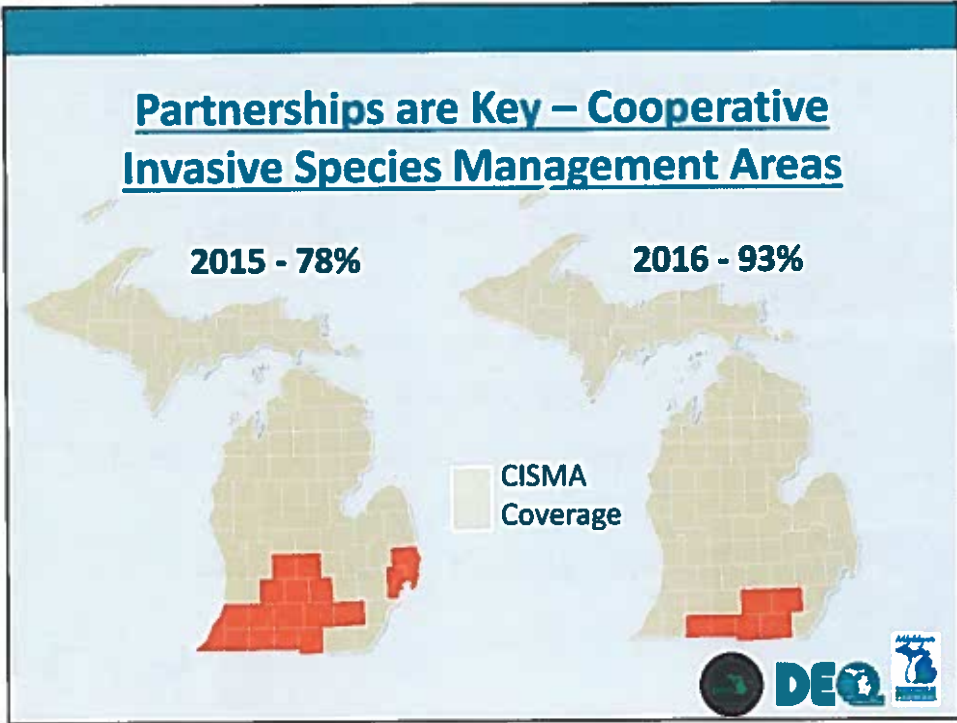
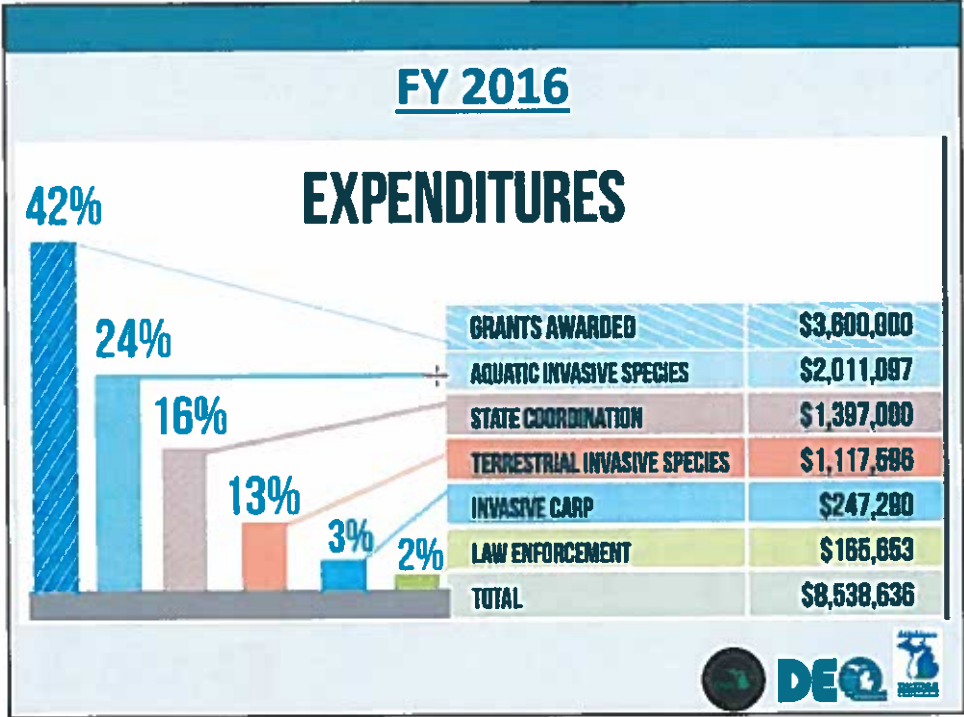


## 4 Goals of MI Invasive Species Program



- Prevent new invasive species introduction
- Limit the dispersal of established invasive species
- Develop a statewide Early Detection and Response Program
- Manage and control invasive species





## Demonstrated Need 2016 Invasive Species Grants Program

- 45 pre-proposal applications totaling  
**\$13.6 million**
- 26 full proposals received requesting  
**\$6.6 million**
- 17 applications awarded for  
**\$3.6 million**




## Grants Awarded by Focus Area in 2016

- **Regional**, collaborative prevention, detection, and control (7; 50%)
- **Integrated and novel approaches** for managing aquatic invasive species (1; 3%)
- Implementing **high priority projects** for terrestrial invasive species (1; 9%)
- **Outreach to prevent** new introductions and reduce the spread of existing invasions (2; 6%)
- **Prevention** of aquatic invasive species through boating and angling pathways (2; 4%)
- Other projects of demonstrated **urgent need** (4; 28%)



### 2016 Highlights

Prevention	Detection	Control
Boating & angling pathways	New Zealand mudsnail	Sea lamprey
Organisms in trade	Oak wilt	Phragmites
Recreational user pathways	Hemlock woolly adelgid	European frogbit
	Didymo	Swallow-worts



### New Detections & Responses

- Didymo “rock snot”
- New Zealand mudsnails
- Yellow floating heart
- Red swamp crayfish

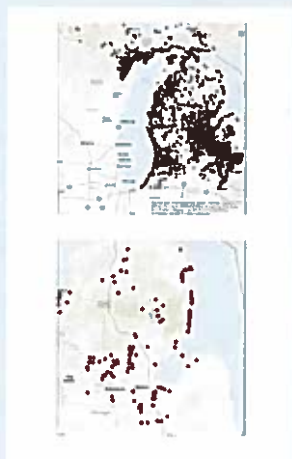


## Phragmites

- Is a tall perennial grass
- Invades wet areas and shorelines
- Grows 80 feet per year
- Impedes access
- Reduces property values
- Reduces habitat
- Presents a fire hazard



## Phragmites Surveys and Treatments



- Improved location data
- Leveraged federal and local funds 3:1
- Achieved results through treatments



## Why Action is Demonstrably Prudent

*\$35 + million annually  
just in Illinois!*



[www.michigan.gov/asiancarp](http://www.michigan.gov/asiancarp)

*What will you put  
on your pancakes?*



<http://asianlonghornbeetle.com>



## Stopping the Invasion: Protecting the Great Lakes



*"To date, we have no evidence of  
live bighead, silver, and black  
carp in the Great Lakes"*

[www.michigan.gov/invasivecarp](http://www.michigan.gov/invasivecarp)





## Bighead and silver carp are master invaders!

- Millions of eggs – reproduce multiple times
- Rapid growth
- Competition & predation
- Temperature not limiting
- Adaptable



[www.michigan.gov/invasivecarp](http://www.michigan.gov/invasivecarp)



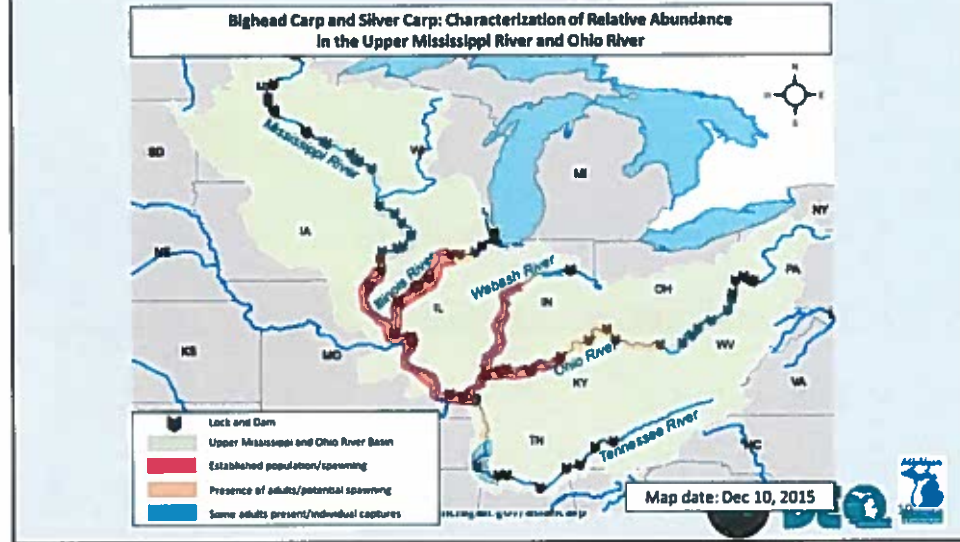
## Silver carp threaten boating and recreation.

- 10 – 25% reduction
- Millions lost
- Local economies biggest risk

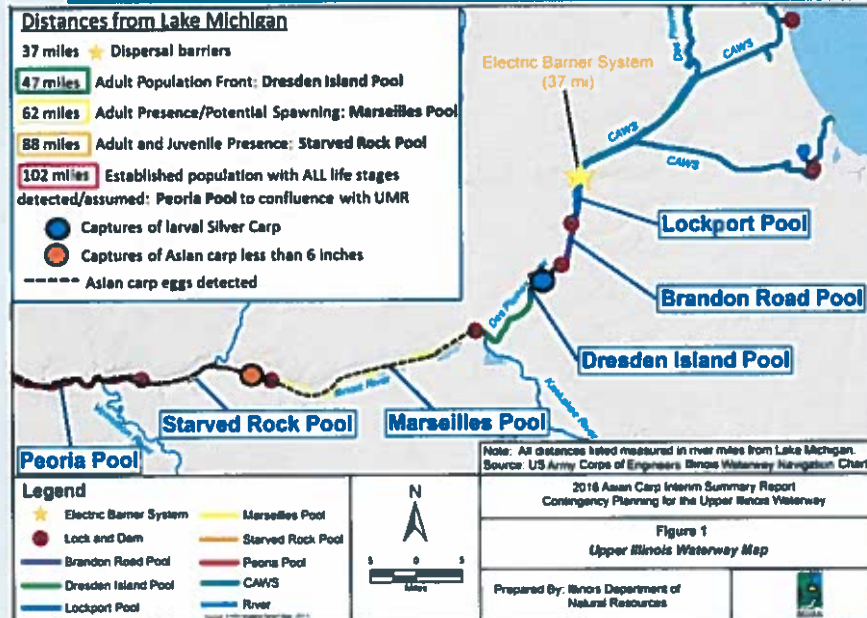


[www.michigan.gov/invasivecarp](http://www.michigan.gov/invasivecarp)

## Invasive carp have spread throughout at least 19 states.



## Chicago Area Waterway System (CAWS)





**Brandon Road provides the most logical,  
cost effective near- term solution to  
protect the Great Lakes**



[www.michigan.gov/asiancarp](http://www.michigan.gov/asiancarp)



**What is Michigan Doing?**

**Preventing – Planning – Preparing**

***Preventing***

- **Collaboration & Representation:** Asian Carp Regional Coordinating Committee, Monitoring & Response Workgroup, ACOE Great Lakes Mississippi River Interbasin Separation Executive Steering Committee Species (GLMRIS), Chicago Area Waterways Advisory Committee
- **Education and Outreach** – baitfish, materials, social media, fishing guide, website
- **Monitoring** – eDNA, federal, state, and commercial vessels

[www.michigan.gov/asiancarp](http://www.michigan.gov/asiancarp)



## What is Michigan Doing? Preventing – Planning – Preparing

### *Planning*

- Mutual Aid Agreement – States & Provinces
- Stakeholder engagement – MSU, Dr. M. Gore
- Revision of Michigan's Invasive Carps Management Plan



[www.michigan.gov/invasivecarp](http://www.michigan.gov/invasivecarp)



## What is Michigan Doing? Preventing – Planning – Preparing

### *Preparing*

- St. Joseph River exercise
- Lake Erie exercise
- Cross-training with Illinois DNR
- Equipment procurement and availability
- Incident command system training



[www.michigan.gov/invasivecarp](http://www.michigan.gov/invasivecarp)



## What is Michigan Doing? Novel Innovation



- \$1 million one-time General Fund (FY 2017)
- Prevent bighead and silver carp from entering the Great Lakes
- Innocentive – GLOBAL reach

[www.michigan.gov/invasivcarp](http://www.michigan.gov/invasivcarp)



## Thank You



*Managing Resources That Naturally  
Make a Difference*

