



IDNR: Asian Carp Update

Leaving Nothing to Chance: Monitoring and Control Actions

Asian Carp Monitoring, Management, and Contingency Actions

**Monitor
and assess
Asian carp
movement**

**Manage and
control Asian
carp to reduce
their impact**

**Use
aggressive
measures for all
contingency
actions**

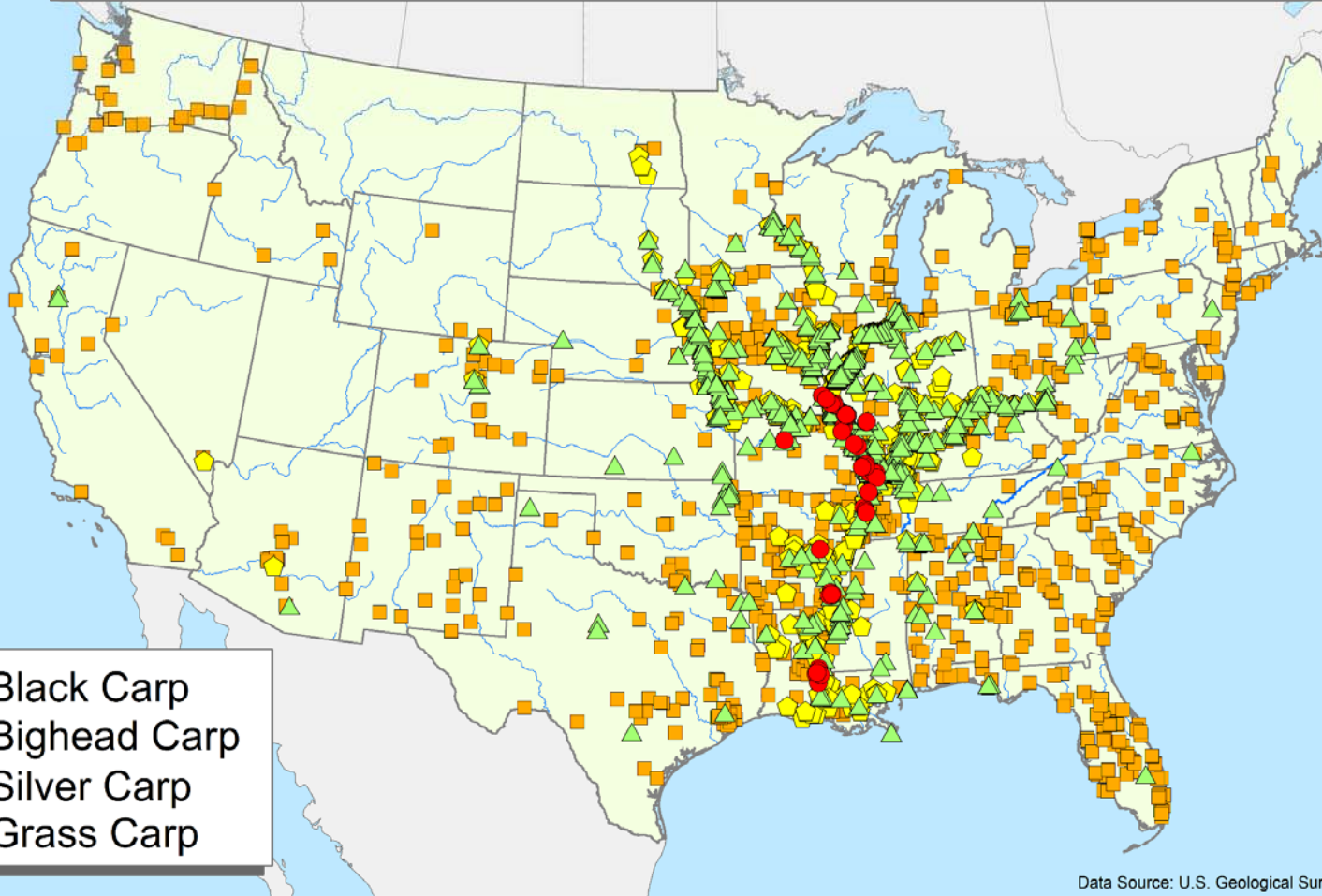
December 2018

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Asian Carp Detection in the United States

- Black Carp
- ▲ Bighead Carp
- ◆ Silver Carp
- Grass Carp



Data Source: U.S. Geological Survey January 2018

2018 MRP (Currently developing 2019 plan)

1) Detection:

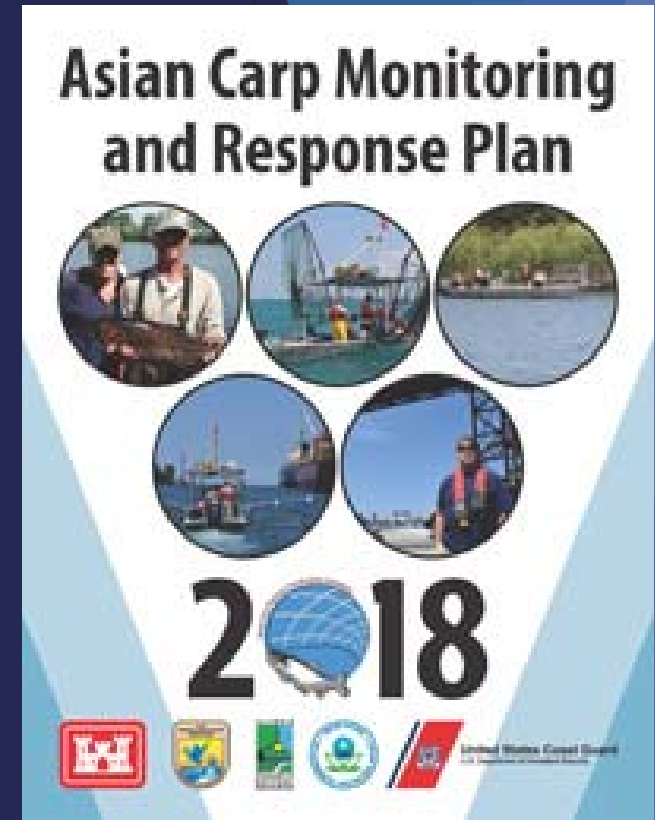
Determine the distribution and abundance of Asian carp to guide response and control actions

2) Management and Control:

Prevent upstream passage of Asian carp towards Lake Michigan via use of barriers, mass removal, and understanding best methods for preventing passage

3) Response:

Establish comprehensive procedures for responding to changes in Asian carp population status, test these procedures through exercises, and implement if necessary

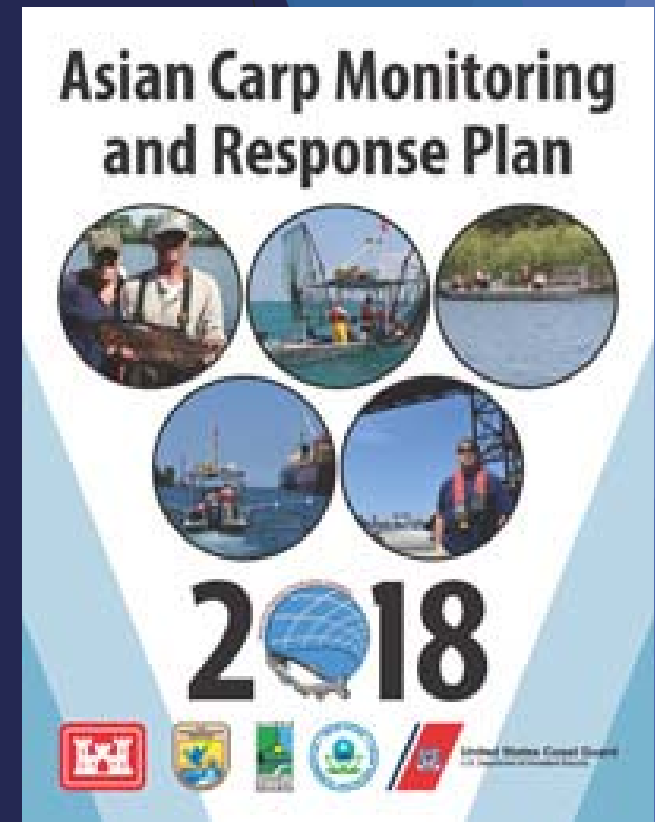


Status of the Monitoring and Response Plan

- updated annually (on-line)
- adaptive, integrating new information and multiple agencies annually
- Current and archived sampling results (www.asiancarp.us)

Over 20 projects to meet goals - - science driven

MRP builds upon the Comprehensive Illinois Statewide ANS Plan 1991 and is updated annually



Multi-Jurisdictional Issue (ACRCC; 2010+)

Illinois River

Independent Commercial Harvest as Control

Model based insights into risk management USFWS

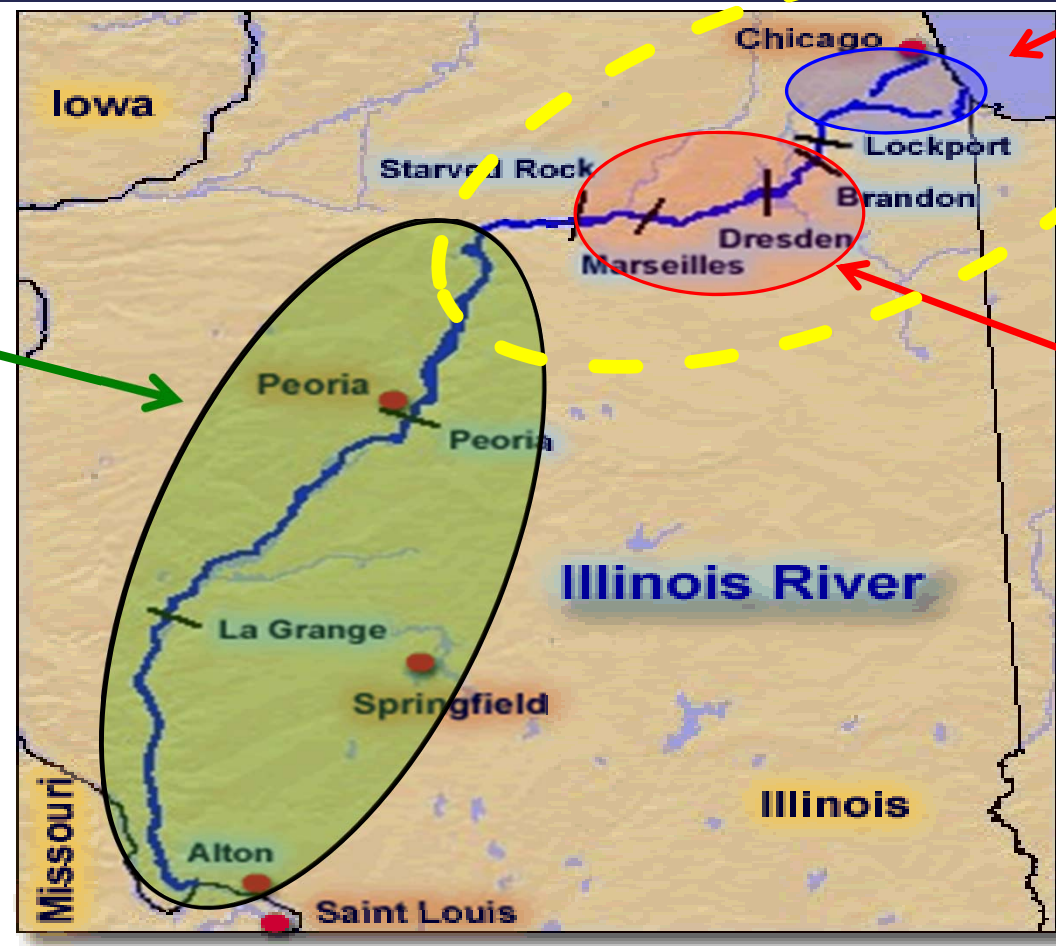
Business Process Analysis

To enhance:

- Business development
- Market driven
- Research support

Continued Assessing Population Demographics and Response

- Content/contaminant



CAWS & Upper Des Plaines

Physical Barriers

- Seasonal Monitoring
- Response actions

Upper Illinois Waterway

- Detectable Population Front Monitoring (Dresden Island Pool)
- Contracted removal
- Small fish monitoring
- Telemetry
- Model based insights into risk management
- Modeling
- Integrated Pest Management
- Contingency Plan

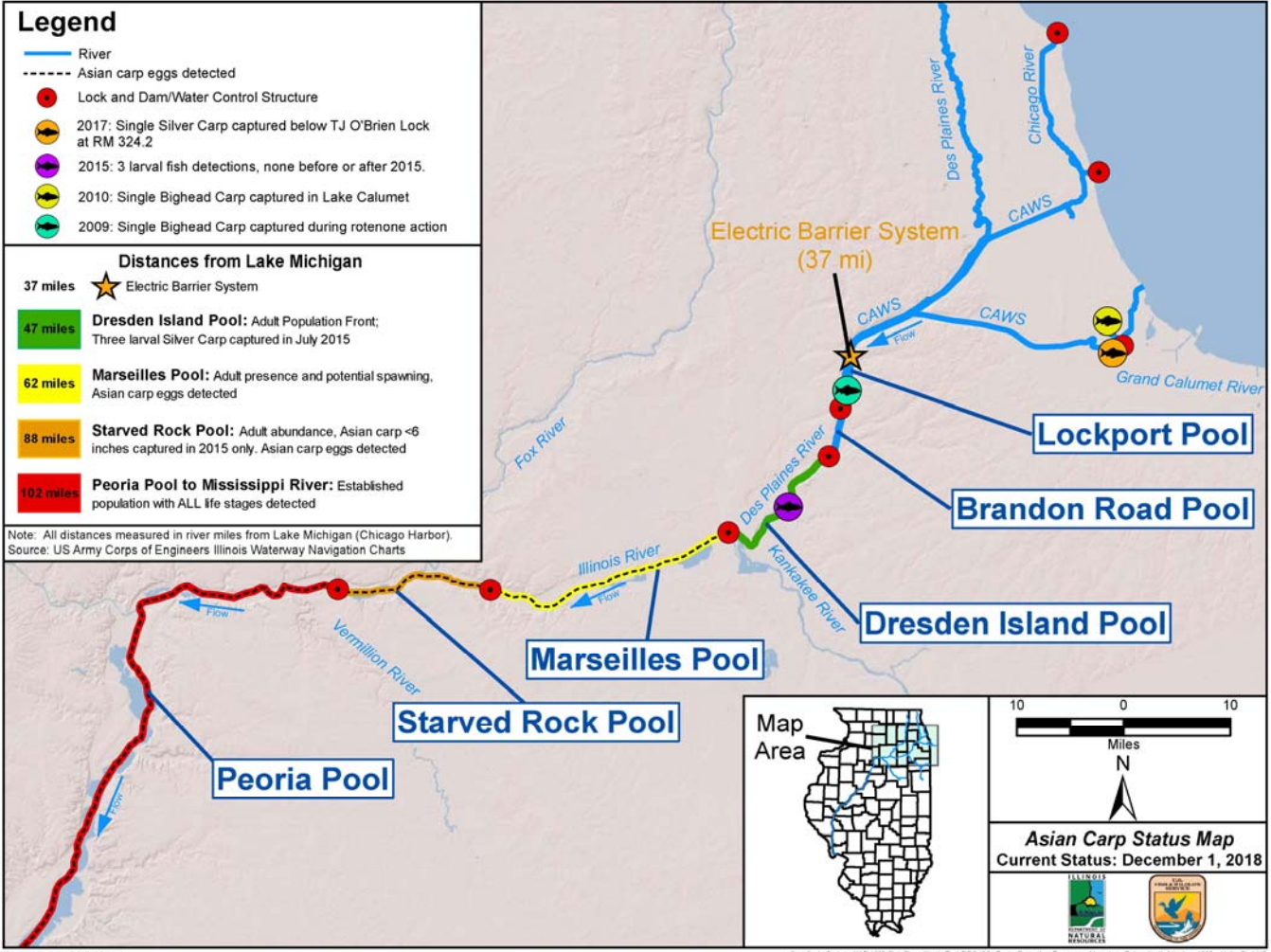
Legend

- River
- Asian carp eggs detected
- Lock and Dam/Water Control Structure
- 2017: Single Silver Carp captured below TJ O'Brien Lock at RM 324.2
- 2015: 3 larval fish detections, none before or after 2015.
- 2010: Single Bighead Carp captured in Lake Calumet
- 2009: Single Bighead Carp captured during rotenone action

Distances from Lake Michigan

- 37 miles Electric Barrier System
- 47 miles **Dresden Island Pool:** Adult Population Front; Three larval Silver Carp captured in July 2015
- 62 miles **Marseilles Pool:** Adult presence and potential spawning; Asian carp eggs detected
- 88 miles **Starved Rock Pool:** Adult abundance, Asian carp <6 inches captured in 2015 only; Asian carp eggs detected
- 102 miles **Peoria Pool to Mississippi River:** Established population with ALL life stages detected

Note: All distances measured in river miles from Lake Michigan (Chicago Harbor). Source: US Army Corps of Engineers Illinois Waterway Navigation Charts



Date Saved: 12/14/2018

Coordinate System: NAD 1983 StatePlane Illinois East FIPS 1201 Feet Projection: Transverse Mercator Datum: North American 1983 Units: Foot US

Monitor and assess Asian carp movement

Manage and control Asian carp to reduce their impact

Use aggressive measures for all contingency actions

Removal (Upper Illinois Waterway)

- Contract commercial fishers for fish removal
- Expect nearly 7.5 M lbs by end of year (> 1.3 M 2018)
- Use gill/trammel nets, hoop nets, Great Lakes pound nets, and commercial seine hauls, Unified
- Little impact to native fishes (< 1% of total catch is game fish, mostly catfishes and put back into waters immediately)

GOOD NEWS: Leading edge has not moved since 2006 active monitoring began (10 years) OR 1990 (28 years) since first documented in vicinity (Dresden Island Pool)

Analyses document high oxidative stress in genes of fish at the leading edge

Harvest ended last week: the last 2 having > 200k lbs removed

~ 1.3M lbs removed 2018

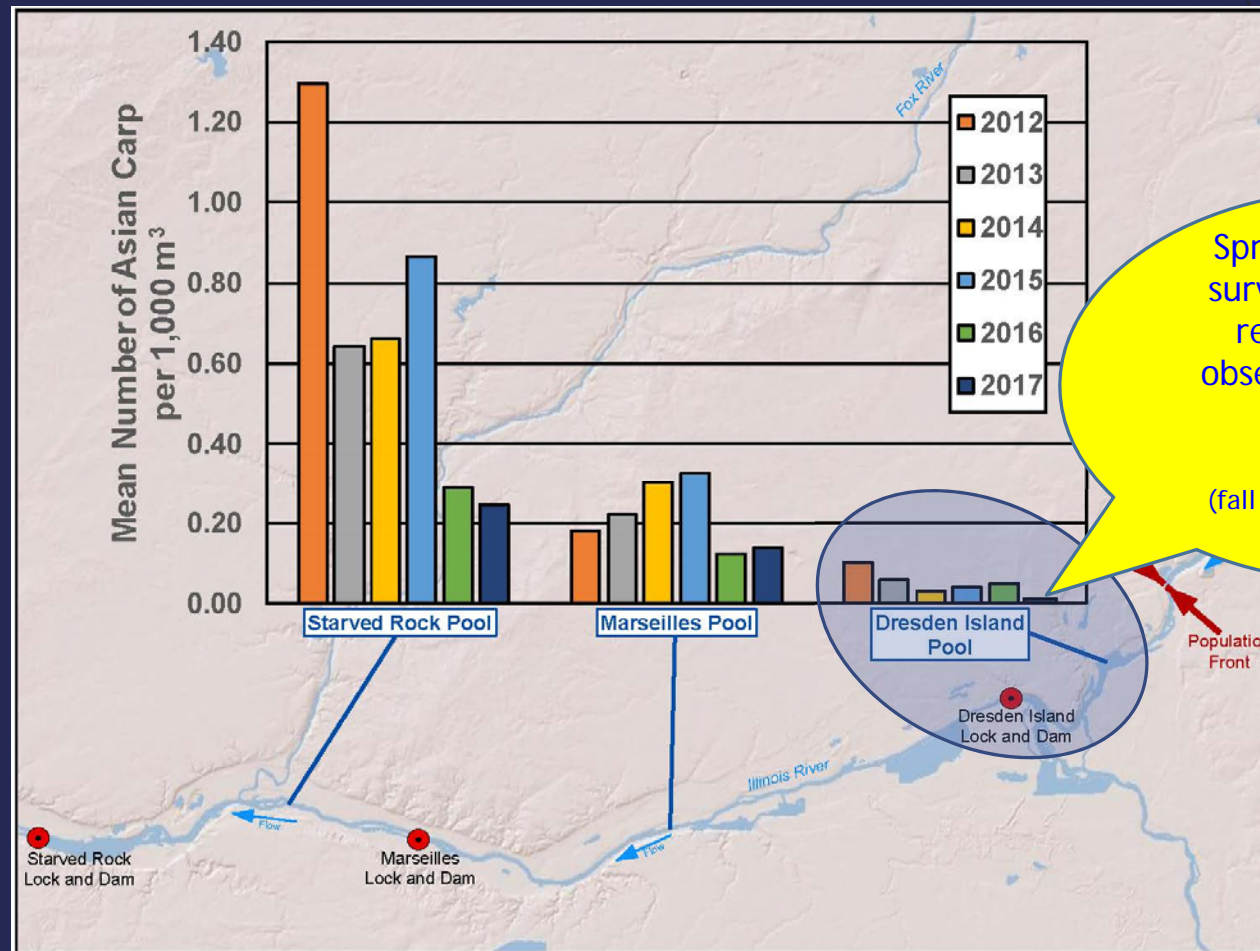


Removal (Upper Illinois Waterway)

44,000 lbs
removed last
tuesday alone.....



Population Observations through 2017

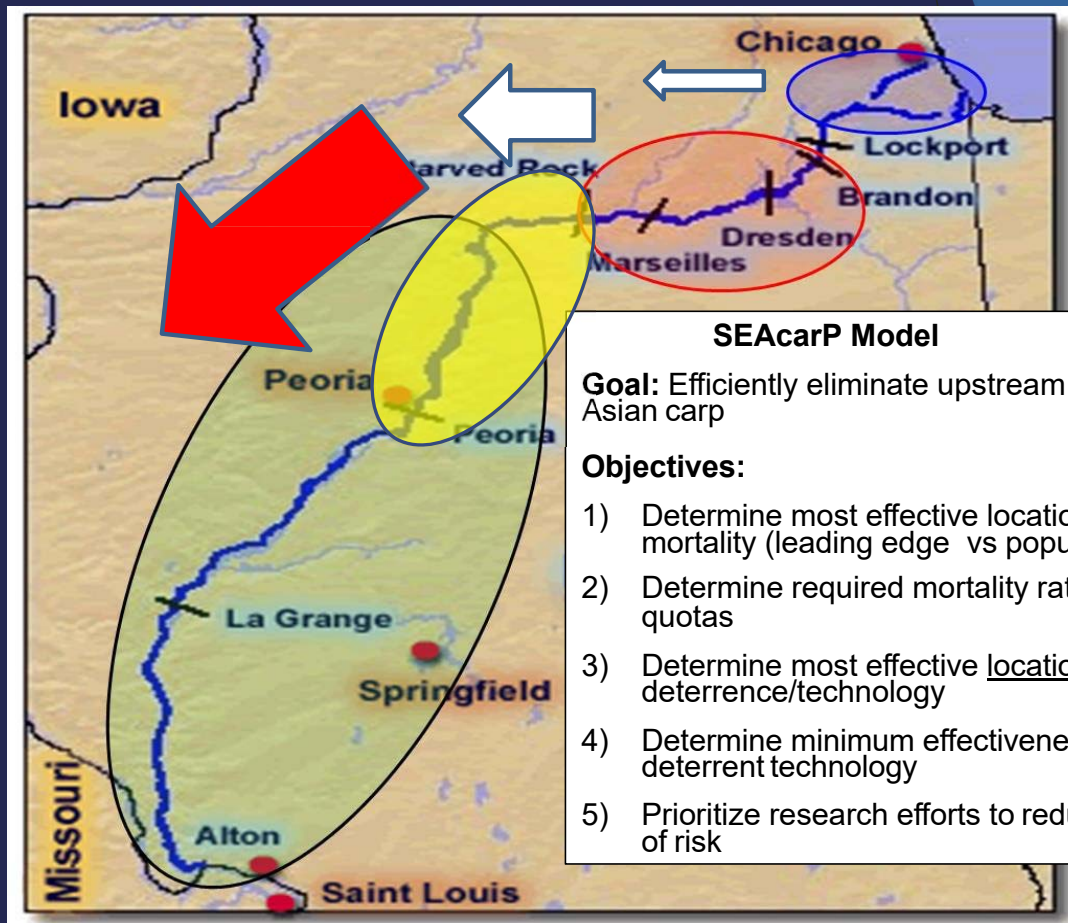
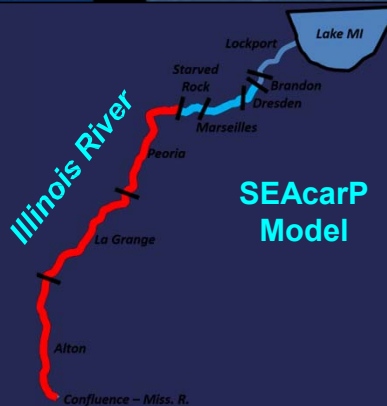
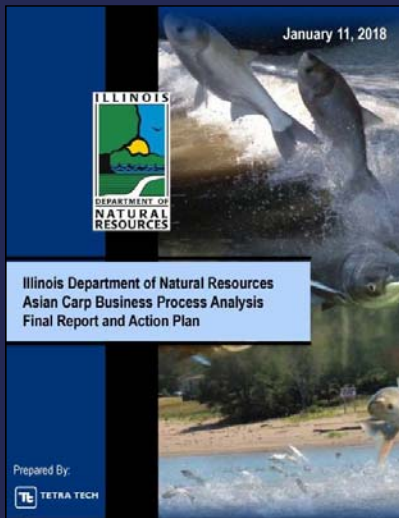


Spring and summer surveys suggest this reduction is still observed throughout 2018

(fall assessment still being evaluated)

- Contract removal in upper IWW likely has contributed to declines

Enhanced Contracted Fishing



SEAcARP Model

Goal: Efficiently eliminate upstream progression of Asian carp

Objectives:

- 1) Determine most effective locations to target adult mortality (leading edge vs population source)
- 2) Determine required mortality rates and quotas
- 3) Determine most effective locations for possible deterrence/technology
- 4) Determine minimum effectiveness rates for deterrent technology
- 5) Prioritize research efforts to reduce uncertainty of risk

Enhanced Contracted Fishing

- ▶ Extend multipronged management strategy downstream
Informed by SeaCarp model
- ▶ Goal of removing 4.5M lbs from Peoria Pool alone
Prior year ~ 4M lbs removed from Alton, La Grange, Peoria
- ▶ Contracting with all willing duly licensed commercial fishers
10 cents additional for fish they sell for a min. of 7 cents
Reporting/GPS requirements
- ▶ Assist with coordination and communication as needed (CO-OP)
- ▶ Any market, in-state, out-of-state, existing or new



Interesting development: Lobster season “dunking day” 2019 is quickly approaching (April) and Maine is concerned that there is not enough bait available. Potentially opens up a market that affords 50 cents/lb at high end for bait off the dock.

MVP Program (Market Value Program)

- ▶ 2016 Funding highlighted support for business development (\$96k)
- ▶ Technical support to connect questions and answers
- ▶ Develop protocols for local business to travel and or meet with technical experts, develop market support, or gather needed partnerships
- ▶ Application process, 25 % match, up to \$8k per year
- ▶ Reporting on info gathering
- ▶ Steering committee IDNR, IDCEO, USFWS, USEPA, KY, Consultant, City of Peoria Economic Development
- ▶ **LAUNCHING THIS WEEK and targeting businesses**

Marketing Development in 2019

- ▶ Enable further expansion and receptivity
- ▶ Marketing consultant
- ▶ Brand development: Illinois Fresh, WILD CAUGHT, SILVERFIN



Developing the best plan:

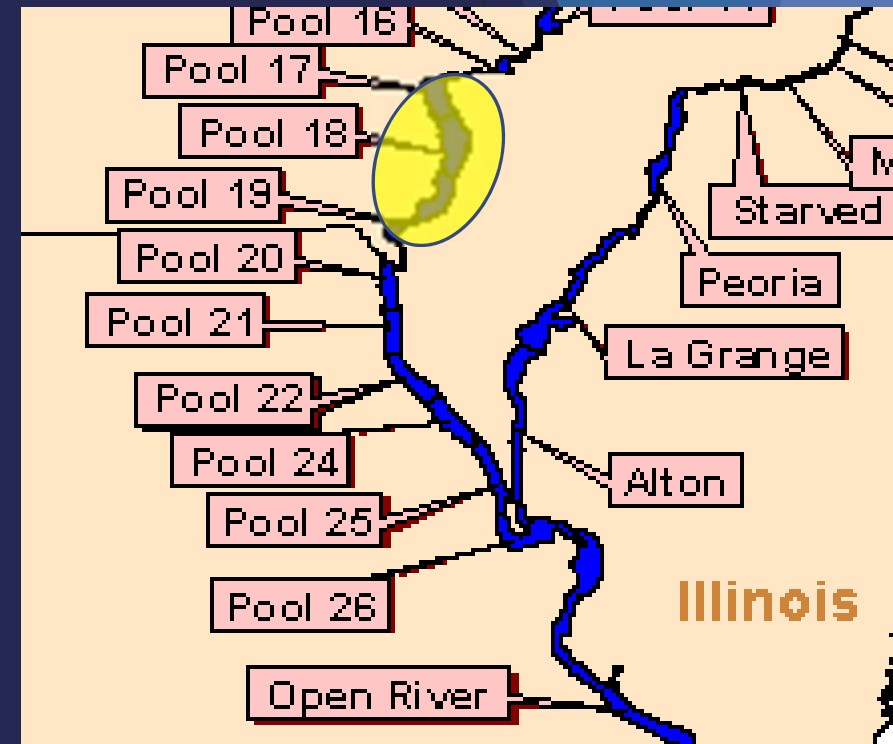
Invasive species unit

- Coordinate with other jurisdictions
- Enforce and investigate
- Leaving nothing to chance
- IDNR is matching 33% of effort in 2019 funding (\$\$)



Asian carp on the Mississippi River

- ▶ UMR Plan relies upon information gathering
- ▶ Harvest
 - 2018: 179,165 lbs of Asian carp removed
- ▶ Evaluation/trend is still in infancy
- ▶ USFWS funding



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Such a robust, adaptive, and aggressive plans requires close coordination between local and national, state-regional-federal partnerships, and close communication to reach common goals.