

# MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

## PROPOSED PLAN FOR THE PREVENTION, DETECTION, ASSESSMENT, AND MANAGEMENT OF ASIAN CARPS IN MICHIGAN WATERS

### “Monitoring and Detection”

#### **Goal III: Detect the presence of bighead, black, grass, and silver carps in Michigan**

##### **Strategic Actions**

1. Implement an eDNA surveillance strategy for Michigan waters, based on Asian carps distribution and likely risk to Michigan waters.
  - Lake Michigan, Lake Erie, Saginaw Bay, Green Bay, tributaries / DRM lakes
2. Use an informed public (including commercial fishers, recreational fishers, and fish distributors) to enhance monitoring for introductions of Asian carps.
  - “Learn to Identify Asian Carp” brochure
  - On-line reporting form ([www.michigan.gov/asiancarp](http://www.michigan.gov/asiancarp))
3. Develop monitoring network through an expanded Scientific Collector’s Permit System.
4. Utilize existing inland and Great Lakes fishery survey efforts to detect the presence of Asian carps.
5. Monitor fish passage systems and weirs to assess the movement and distribution of Asian carps in Michigan rivers.
  - Grand River, St. Joseph River (fish ladders)
  - Little Manistee River, Platte River, Boardman River, Medusa Creek, and Swan Creek (weirs)

#### **Goal IV: Gather population level data on Asian carps at areas where they have been detected in Michigan waters; measure response of Michigan fish populations to the introduction of Asian carps**

##### **Strategic Actions**

1. Implement expanded fisheries surveys in waters where Asian carps have been detected, with survey designs linked to likely management actions in waters of concern.
  - How many Asian carps are present in the area of concern?
  - How are introduced Asian carps affecting resident fish populations in the area of introduction?
  - Netting, hydroacoustics, electrofishing, early life history surveys, creel surveys, commercial contracts



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### “Mounting a Response”

#### Ongoing Management Strategies

- Barriers in the Chicago Sanitary and Ship Canal to prevent movement into Lake Michigan
  - Support for ecological separation, between the Mississippi River and Great Lakes Basin
  - Barriers to prevent movement of Asian carps into the Des Plains River during flooding
  - Environmental DNA surveillance by the U.S. Army Corps of Engineers and University of Notre Dame
  - Rotenone application to the Chicago Sanitary and Ship Canal in December 2009
  - Legal and legislative efforts to strengthen restrictions on possession and prevent movement of Asian carps
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**Goal V: Eradicate, contain, or manage populations of Asian carps if they become established in Michigan**

#### Strategic Actions

1. Follow Aquatic Invasive Species Hazard Analysis and Critical Control Point recommendations when conducting operations potentially influencing Michigan waters.
  - Clean and restrict gear, certification processes
2. Evaluate construction, maintenance, monitoring, operations, or removal of permanent and temporary barriers to dispersal of Asian carps.
  - *“Negative impacts of fish passage, including passage of undesirable species, should be addressed before any fish passage project is implemented, especially if the dam is the first barrier from the Great Lakes”* (from Fisheries Division policy 02.02.005)
3. Encourage commercial and recreational harvest.
4. Physically remove incidental catches of Asian carps during fisheries surveys, when practical.
5. Implement chemical piscicide eradication plans, if Asian carps create negative ecological, economic, or social effects in Michigan.
  - System- and situation-specific plans outlined in the DNRE’s Asian Carps Plan
6. Utilize new technologies, as available and appropriate, to contain or manage Asian carps.
  - Biological control, deterrent technologies, pheromones, genetic manipulation, chemical control



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### “Current Regulations and Enforcement”

#### Policy Background

- Public trust doctrine, Article 4, § 52 of the Michigan Constitution
  - Natural Resources and Environmental Protection Act
    - Part 413; transgenic and non-native organisms and accompanying rules
    - Part 459; prohibit or restrict species that would endanger public fishery resources
    - Part 487; stocking of fish into the public waters of the State of Michigan
  - Aquaculture Development Act; approved list of species for aquaculture
  - Executive Orders; Aquatic Invasive Species authority (Deputy Director), ballast water authority (DNRE-Water Resource Division)
  - Administrative Rules; e.g., importation of grass carp or eggs is prohibited without a permit
  - Fisheries Orders
    - 209; illegal to transport or possess live bighead, black, grass, and silver carp
    - 245; restrictions on the release of live baitfish
  - Other permitting activities
    - Scientific Collector’s Permits
    - Public waters stocking permits
    - Retail minnow dealer's licenses
    - Wholesale minnow dealer's licenses
    - Minnow catcher's licenses
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#### **Goal I: Prevent the accidental or deliberate introduction of bighead, black, grass, and silver carps in Michigan**

#### Strategic Actions

1. Prevent transport and release or improper disposal of Asian carps that may be intermixed with baitfish.
  - Improved certification processes, increased inspection
  - Proper disposal of bait
2. Control ongoing and permitted fish stocking efforts to prevent inadvertent introduction of Asian carps.
3. Prohibit import, possession, sale, purchase, and intentional introduction of Asian carps.
4. Work with other agencies and partners to prevent introduction of Asian carps.
  - Provide unified support for actions that help prevent the spread of Asian carps, including ecological separation of the Mississippi River and the Great Lakes



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### “Communication Strategies”

**Goal II: Effectively share information to improve management and control of bighead, black, grass, and silver carps in Michigan**

#### Strategic Actions

1. Develop educational materials related to the identification of Asian carps.
  - “Learn to Identify Asian Carp” brochure
  - Training materials for biologists, Law Enforcement Division officers, and public
2. Develop educational materials describing the potential negative effects of Asian carps and methods to prevent their introduction.
  - Asian carp fact sheets (including Frequently Asked Questions)
  - Public exhibit / display
3. Develop educational materials describing regulations pertinent to preventing the introduction of Asian carps.
  - Natural Resources and Environmental Protection Act 451 of 1994
  - Administrative Rules
  - Fisheries Order 209; “...*illegal to transport or possess live specimens of ...bighead carp, black carp, grass carp, and silver carp.*”
4. Develop educational materials describing human safety issues related to establishment of Asian carps.
  - Silver carp have been known to jump out of the water, causing physical injury to boaters
5. Effectively communicate with the public regarding Asian carps developments and our response strategies.
  - DNRE Asian carp Web page; [www.michigan.gov/asiancarp](http://www.michigan.gov/asiancarp)
  - On-line reporting form
6. Develop DNRE and MDA Asian Carps Task Group and communication system

