

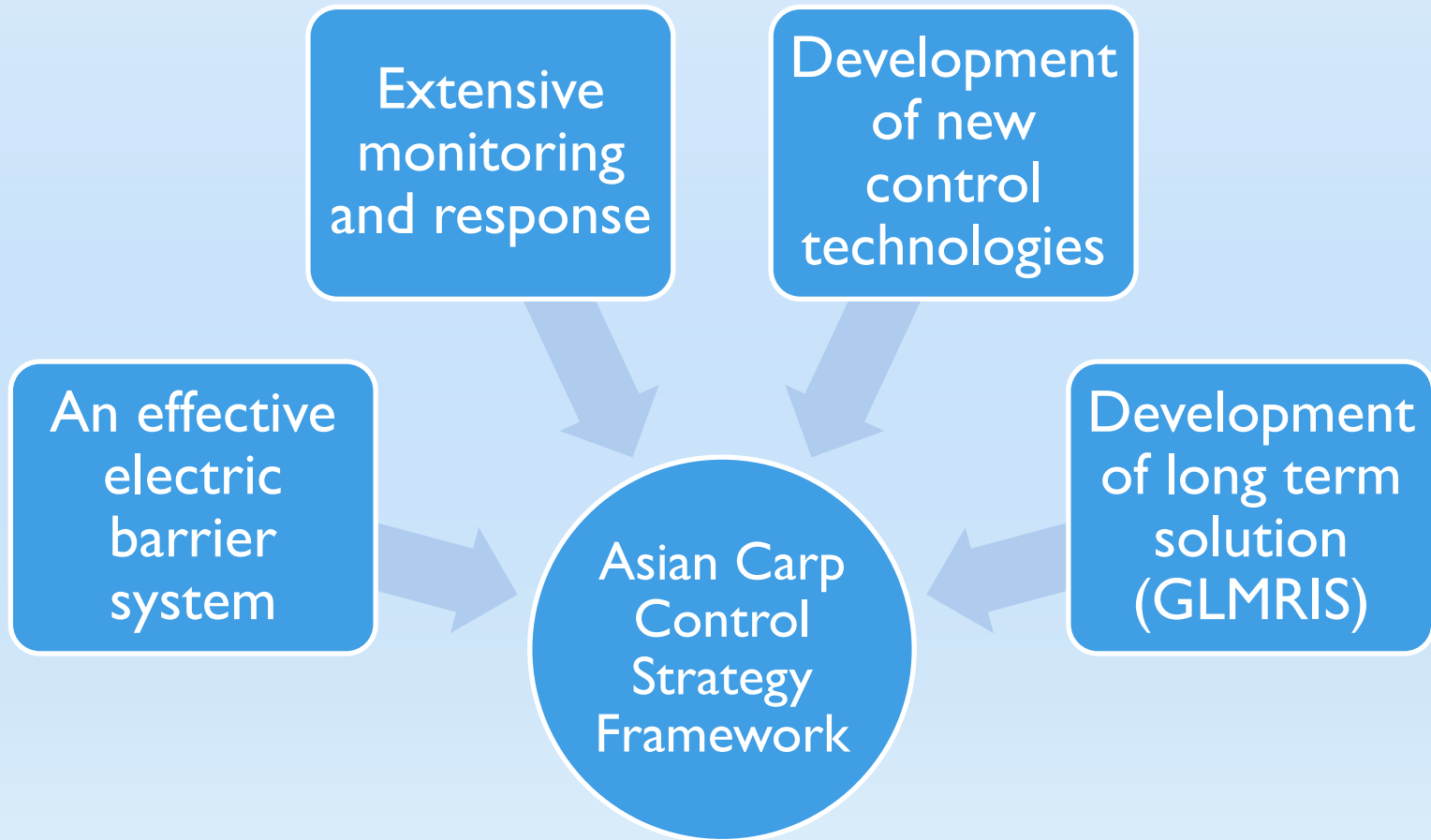


# Asian Carp Regional Coordinating Committee

The ACRCC, with support from Federal, state, provincial and local agencies, and private stakeholders and citizens, are creating a sustainable Asian carp control program to prevent the establishment of an Asian carp population in the Great Lakes.



# Response to the Threat





## Eight GLMRIS Alternatives

- Alternative 1: No New Federal Actions - Sustained Activities
- Alternative 2: Nonstructural Control Technologies
- Alternative 3: Mid-System Control Technologies without a Buffer Zone
- Alternative 4: Control Technology Alternative with a Buffer Zone
- Alternative 5: Lakefront Hydrologic Separation
- Alternative 6: Mid-System Hydrologic Separation
- Alternative 7: Mid-System Separation Cal-Sag Open Control Technology with a Buffer Zone
- Alternative 8: Mid-System Separation CCSC Open Control Technology with a Buffer Zone





# Moving Forward with Asian Carp Efforts

**Point 1** - Continue and expand, where possible, the current on-going efforts to control aquatic invasive species in the CAWS.

- o Continue the extensive multi-agency monitoring efforts above and below the electrical dispersal barrier.
- o Continue use of the current electrical dispersal barrier, including on-going efforts to increase the effectiveness of the barrier system.
- o Continue efforts to identify new effective control technologies.
- o Continue on-going outreach and education efforts.



# Moving Forward with Asian Carp Efforts

**Point 2** - Initiate short-term risk reduction measures for all life stages of Asian carp at the Brandon Road Lock and Dam.

New electrical barrier system

- Incorporation of the most up-to-date technologies available to improve upon the current electrical barrier system with state-of-the-art real time monitoring for fish movement through the barrier.

New or improved lock system

- Consideration of alternative control and monitoring technologies.



# Additional AIS Control Efforts

USFWS will be working with the Great Lakes states to evaluate and implement nonstructural control technologies to reduce the risk of the 13 species of concern for transfer between the Great Lakes and Mississippi River basins,.

- development of risk reduction plans and implementation of controls actions.
- removal,
- chemical control,
- controlled waterway use, and
- education programs.



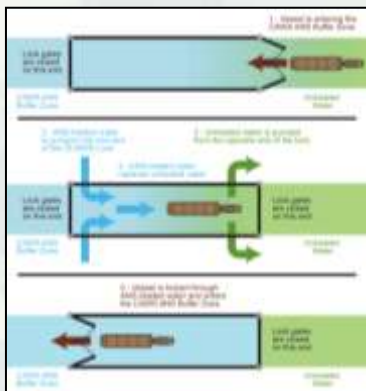
# Development of a Regional Position

The ACRCC will continue to work with the Chicago Area Waterways Advisory Committee and Resource Group and other Great Lakes and Mississippi River basin groups to develop a regional position on moving forward with effective long-term controls to prevent the movement of any aquatic invasive species between the Great Lakes and Mississippi River basins.

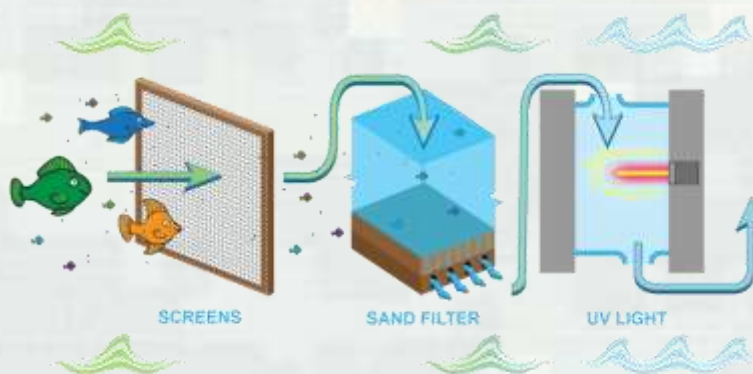


## ANS Control Technologies

### GLMRIS Lock



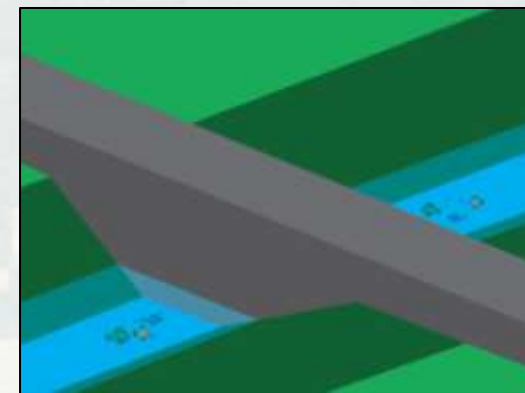
### ANS Treatment Plant



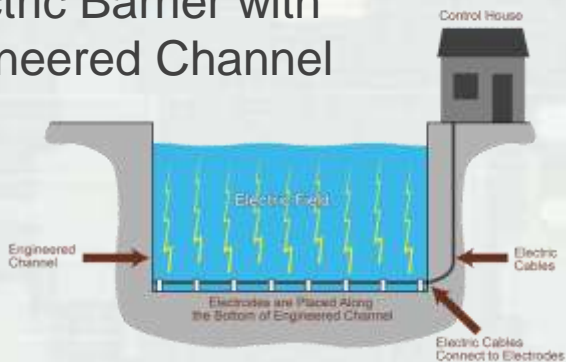
- Address modes of ANS movement

- ▶ Swimming
- ▶ Floating
- ▶ Hitchhiking

### Physical Barrier



### Electric Barrier with Engineered Channel



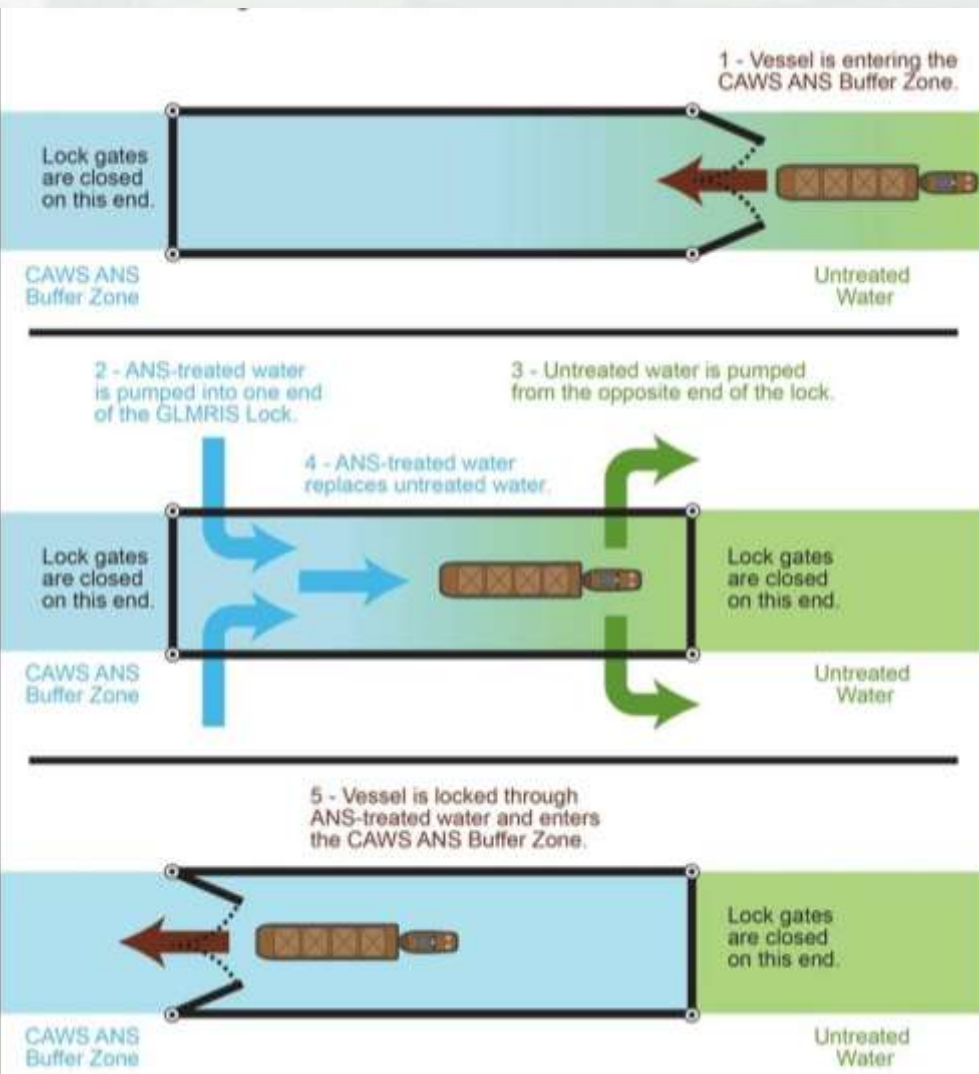
### Screened Flow Gates







### GLMRIS Lock

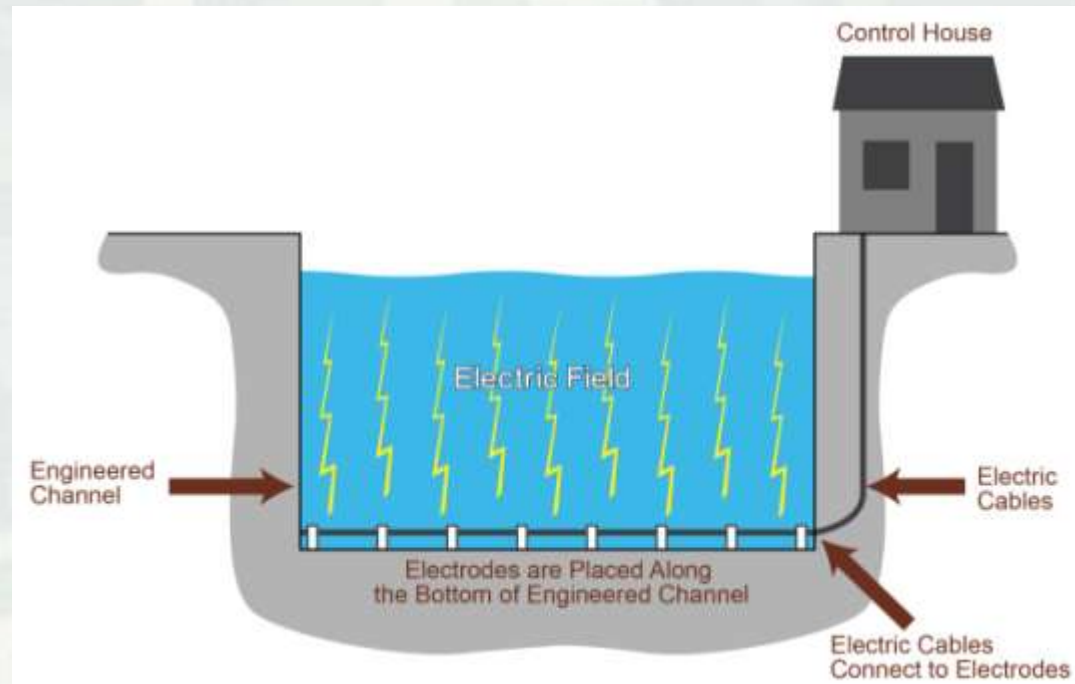


- Objective: To prevent ANS from entering the CAWS from the Lower Des Plaines River via the Brandon Road Lock.
- Concept: To “flush” the lock chamber with ANS-free water between lockages to reduce risk of ANS transfer.



## Electric Barrier with Engineered Channel

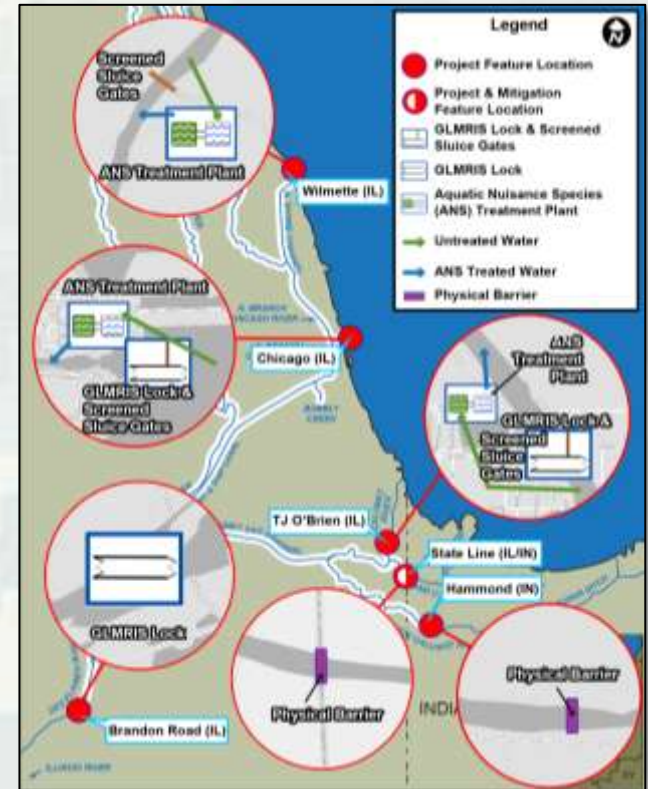
- Addresses swimming species
- Refined design may offer:
  - ▶ Closure of voids and crevices
  - ▶ Insulative properties
  - ▶ Optimized channel dimensions and electrode configuration
- Research needed
  - ▶ Stray current
  - ▶ Lock gate interferences
  - ▶ Continue current investigations to improve efficacy





## Brandon Road Lock and Dam location

- Reduces transfer risk for Mississippi River basin aquatic nuisance species
- Would not address Lake Michigan species
- Opportunity for staged implementation
- GLMRIS Lock would address floating species
- Electric barrier would deter swimming species from entering lock chamber



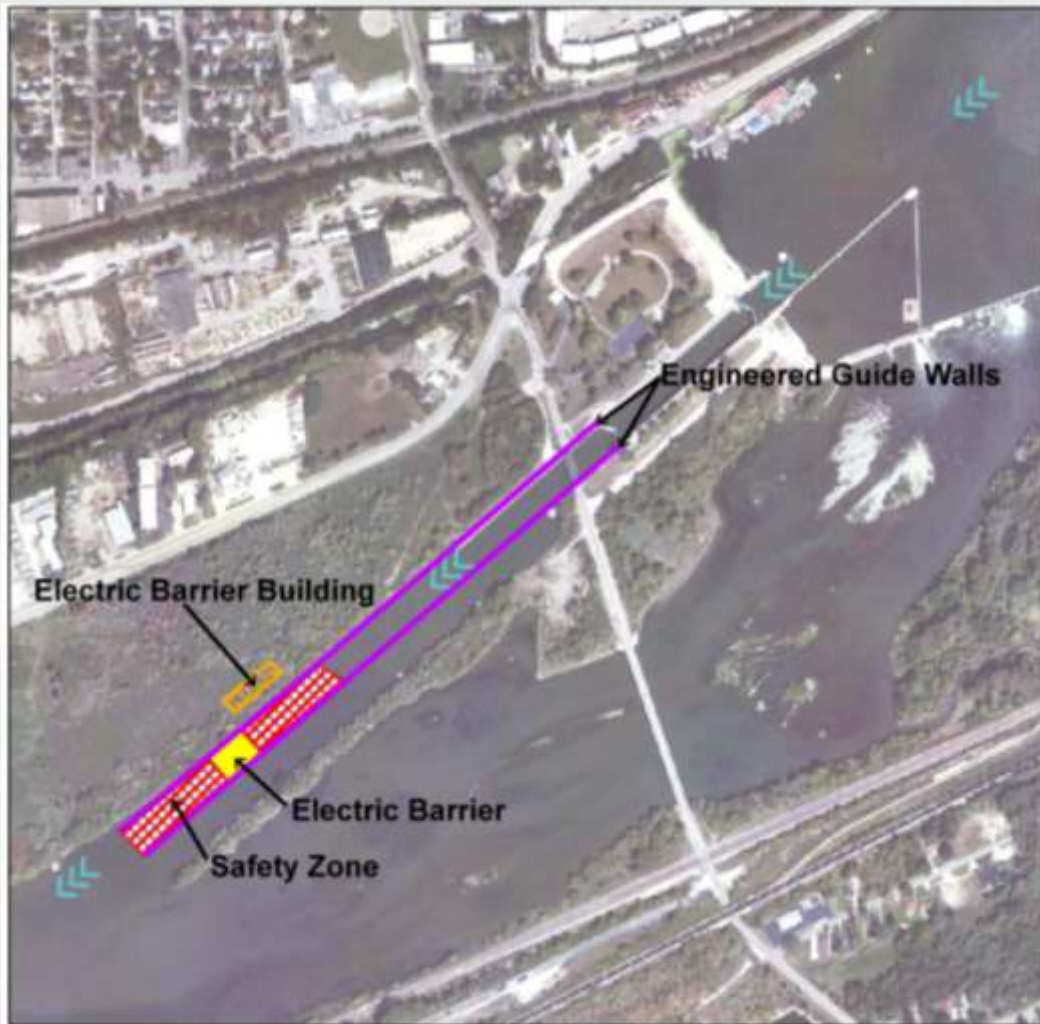
Alternative Plan 4  
Technologies with Buffer Zone







## ANS Control Technologies at Brandon Road L&D



### Legend

- Engineered Guide Walls
- Electric Barrier Building
- Electric Barrier
- Safety Zone (Regulated Navigation Area)
- Direction of Flow

**\*\*Further evaluation is required to determine exact location of project and mitigation features.**





# THANK YOU



For more information

Please visit [www.asiancarp.us](http://www.asiancarp.us)