

Update on Actions Related to Minneapolis City Council Resolution on Asian Carp

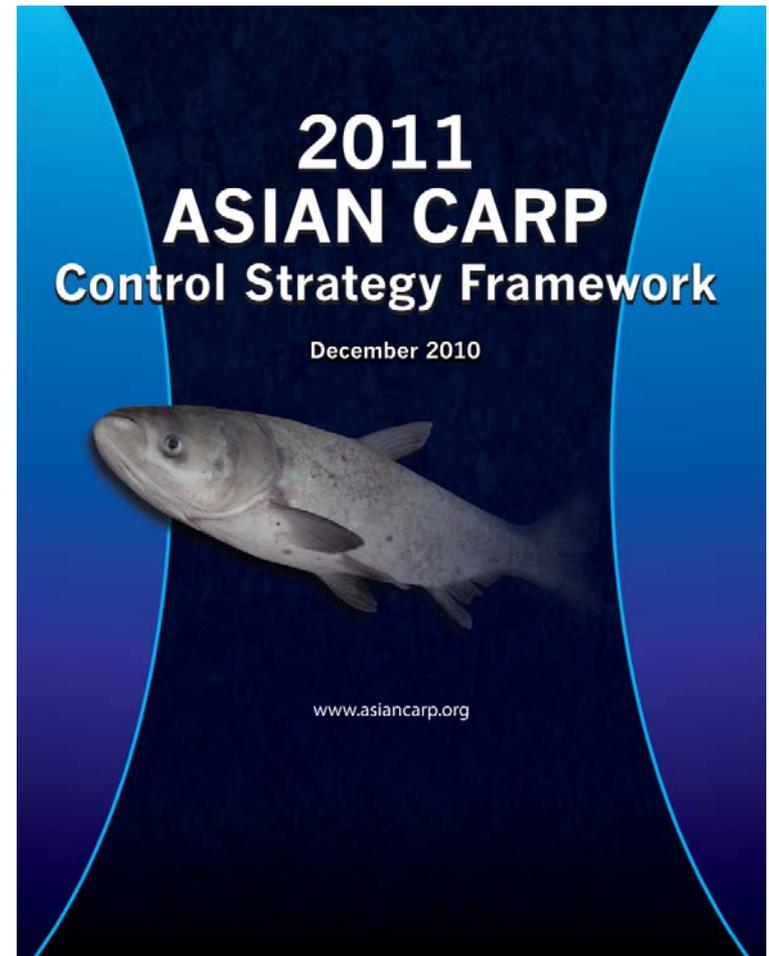
John Anfinson
National Park Service
651-293-8432
John_Anfinson@nps.gov

Tim Schlagenhaft
Minnesota Dept. of Natural Resources
651-345-3365 ext. 233
Timothy.schlagenhaft@state.mn.us

Resolution:

- “The Minneapolis City Council urges the U.S. Congress to direct and allocate necessary funding to the appropriate federal agencies, and
- Minnesota Governor Dayton to direct the DNR to make absolutely every effort to protect the upper Mississippi River at and downstream of Minneapolis from the spread of Asian carp species.”

Federal funding for Asian Carp- currently focused exclusively on the Great Lakes and Illinois River – \$0 to MN



US Fish and Wildlife Service - provides invasive species funding to states and technical assistance

- \$790,000 in 2010 to MN DNR
- Used for education, control, prevention and monitoring of many species of invasive plants and animals in Great Lakes basin – \$\$\$ spread thin



Zebra mussels

Congressional Involvement

- Governor's Summit brought together staff from most of the congressional delegation.
- Governor has called for a second summit inviting the delegation members themselves.
- October 20 tour with Representative Keith Ellison – and possibly other members – at Upper St. Anthony Falls Lock & Dam.

State of MN Efforts

- Important priority for Governor Dayton and DNR Commissioner Landwehr
- Governor held an Asian Carp Summit to highlight issue and present Action Plan
- DNR is providing funding for eDNA testing and contracting with commercial fishing operators

Resolution:

“Implement an ongoing monitoring and detection program to determine the extent of Asian carp breeding populations within the Mississippi, St.Croix, and Minnesota Rivers”

Monitoring and detection - ongoing fisheries surveys, monitoring commercial harvest, and eDNA testing

Commercial fishing



electrofishing



eDNA testing

eDNA Testing

- 1st Round – June 2011
 - Mississippi River
 - St. Croix River
- 2nd Round – September 2011
 - Mississippi River
 - Minnesota River
 - St. Croix River



Resolution:

- “Prevent movements of Asian carp populations into the Upper Mississippi by implementing strategies outlined in the Minnesota and National plans to control Asian carp species, and
- to develop additional effective behavioral or other methods to stop the spread of Asian carps”

National Park Service and MN DNR co-chair the ad hoc Asian Carp Task Force, providing leadership and staff time to focus on this issue

- Action plan is being developed by Task Force that recommends a multi-pronged approach to prevent impacts, and manage or control Asian carp at Minneapolis and downstream.
- Many of the actions in the Task Force plan are included in the National Asian Carp Plan – National Plan currently receives no funding - with congressional appropriation could provide funding for MN actions.

Preventing movement

- Lock and dam design and operation do not provide good barrier options for most Mississippi River dams

Dam gates are pulled out of the water during high flows, and dikes and spillways are over-topped allowing fish to pass

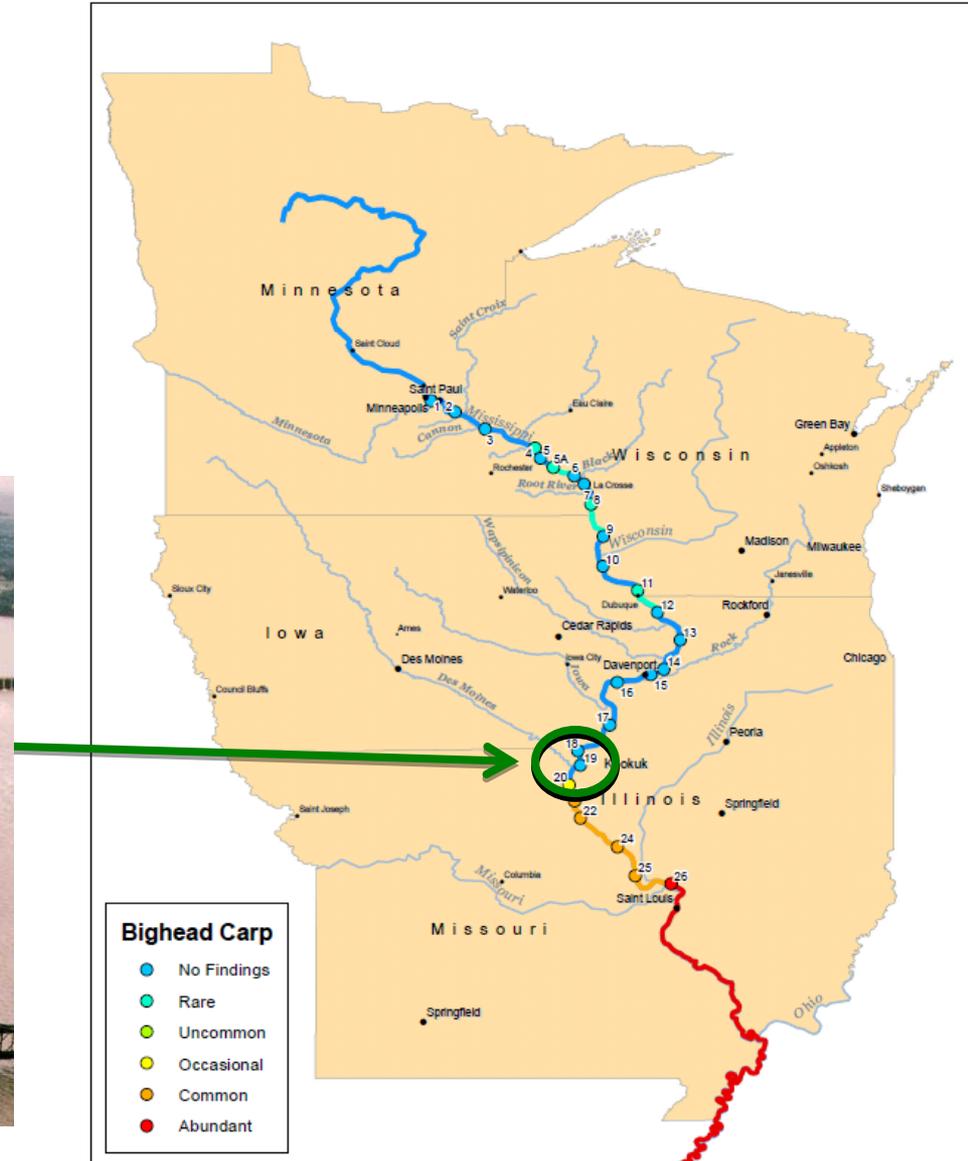
Asian carp are strong swimmers and migrate especially during high water.



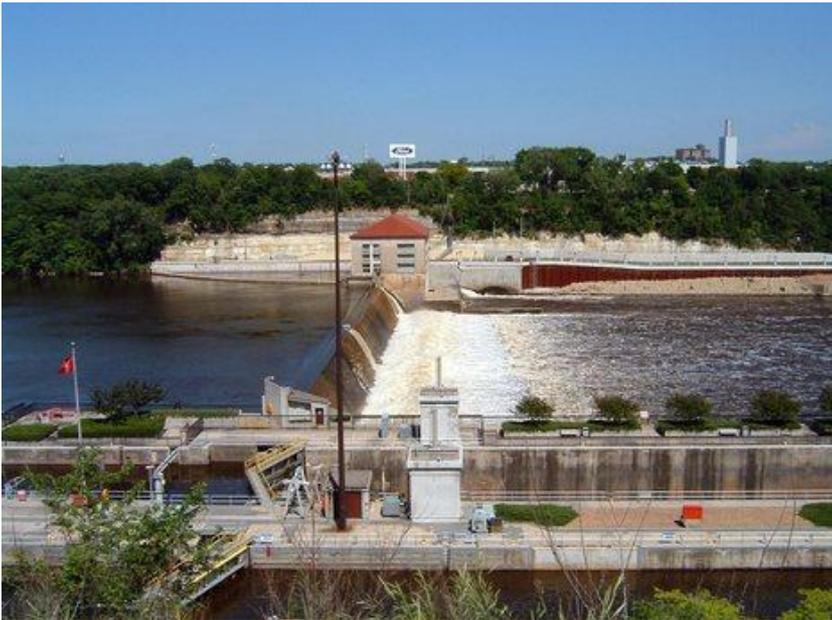
Barry Johnson
- USGS

Lock & Dam 19, at Keokuk, Iowa

- 39-foot head
- Fixed-crest spillway
- Lock treatment required
- Lock closure not an option
- A barrier here could save much of IA, WI & MN from Black carp and other invasive species on the way.



Minnesota Exceptions: Lock & Dam No. 1, Upper St. Anthony Falls



wn.com

Lock and Dam #1 (Ford Dam)

- 36-foot head
- Fixed-crest spillway



blogs.citypages.com

Upper St. Anthony Falls

- 49.1-foot head
- Fixed-crest spillway

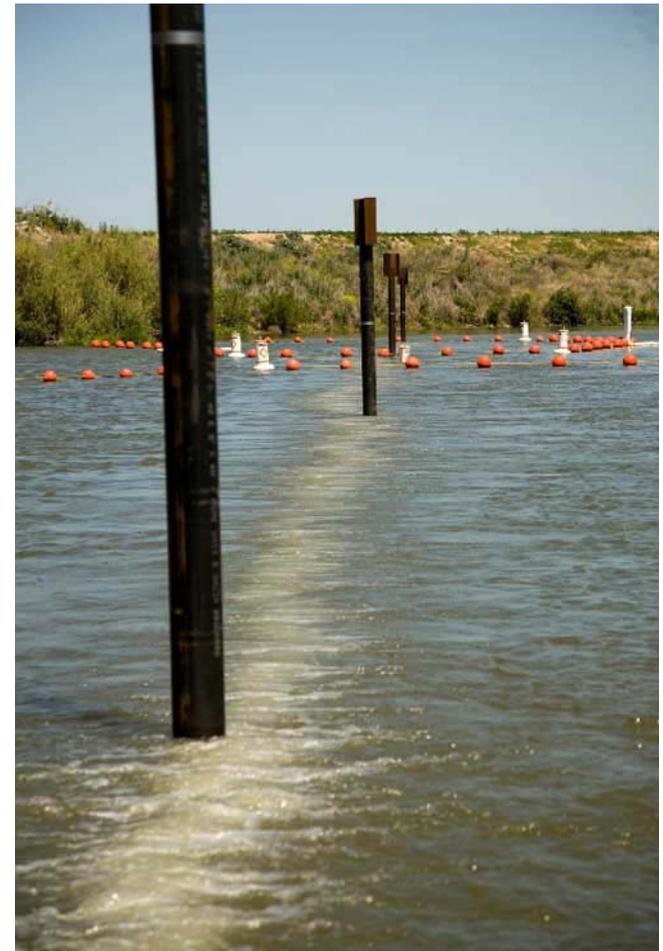
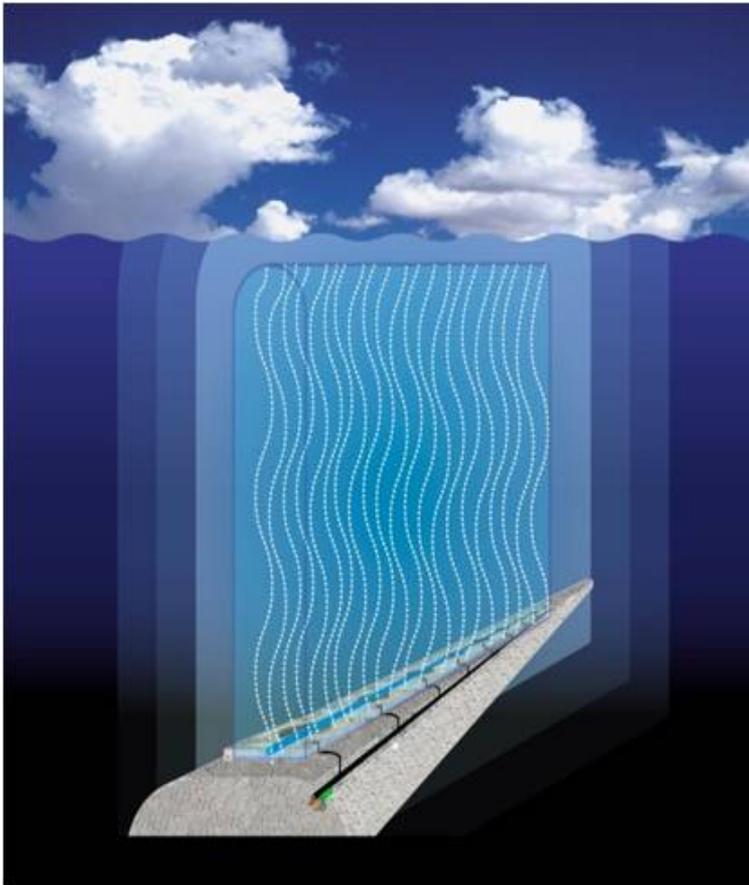
Closing Upper St. Anthony Falls or Ford Dam locks would be 100% effective in preventing fish from swimming upstream

- Would require congressional authorization allowing or requiring the Corps of Engineers to close the lock under emergency conditions
- Feasibility study is recommended to evaluate the economic, recreational, and ecological impacts of lock closure
- There is no consensus on this action by the Task Force

Coon Rapids Dam - repairs to the Coon Rapids dam will improve it's effectiveness as a fish barrier, but will not completely prevent fish passage.



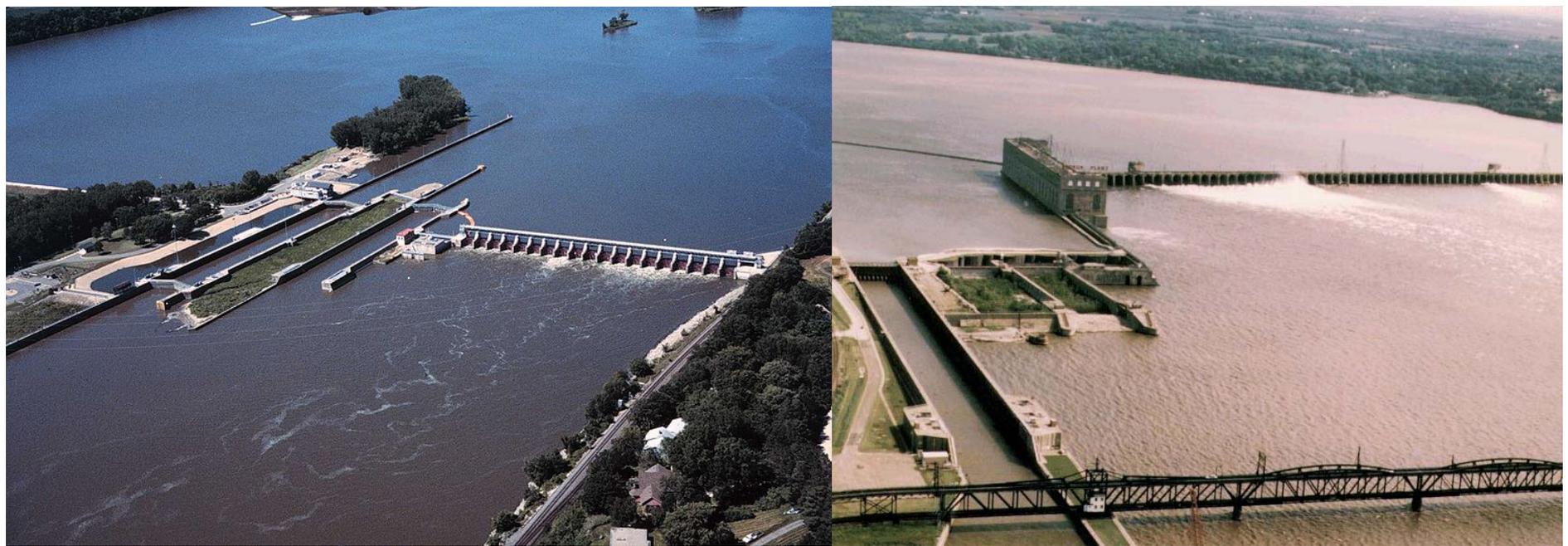
Bubble/Sound barriers – sound contained within a wall of bubbles that is uncomfortable to fish



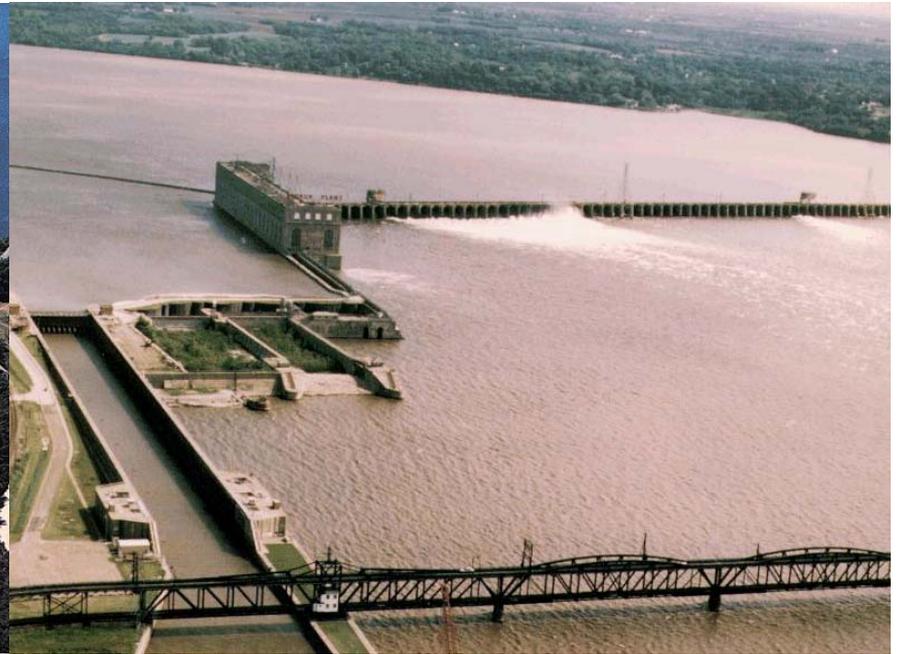
Mouth of the St. Croix River at Prescott



Lock Chambers



Lock and Dam #2 - Hastings
The lock is 110 wide by 600 feet long. The lift is 12 feet.



Lock and Dam #19 – Keokuk, IA

Bubble/sound barriers:

- Not 100% effective in preventing movement past the barrier
- Some success in lab and small-scale field studies
- Untested in large river systems
- Could slow movement of Asian carp while other technologies are being developed
- Lessard-Sams Outdoor Heritage Council setting aside \$3 million while feasibility of barriers is being evaluated

Lock & Dam Locations



Behavioral or other methods – may be most realistic long-term solution for controlling Asian carp populations

- Biobullets
- Hydroguns
- Genetic manipulation
- Harvest for food or fertilizer
- Habitat restoration for native species

Resolution:

“The City Council requests that the State of Minnesota establish an Asian carp Task Force for the Mississippi River and its watershed and with the U.S. Fish and Wildlife Service formalize a plan for mitigating the impacts of potential Asian carp infestation of the Mississippi River in Minnesota.”

Ad hoc Asian Carp Task Force

Agency or organization representatives

- National Park Service (co-chair)
 - Mississippi National River and Recreation Area
 - St. Croix National Scenic Riverway
- Minnesota Department of Natural Resources (co-chair)
- US Fish and Wildlife Service
- US Geological Survey
- Minnesota Department of Transportation
- Wisconsin Department of Natural Resources
- City of Minneapolis
- City of St. Paul
- City of Hastings
- Prairie Island Indian Community
- Shakopee Mdewakanton Sioux Community
- Three Rivers Park District
- Saint Paul Port Authority

Technical advisors

- University of Minnesota (Peter Sorensen, Loren Miller)
- US Army Corps of Engineers, St. Paul District
- Mississippi River Fund
- St. Croix Valley Foundation

Observers

- Friends of the Mississippi
- Upper Mississippi River Waterways Association
- St. Croix River Association

Governor's plan recommends formally chartering a multi-organizational Task Force

- Task Force would facilitate strategic discussions, conduct collaborative problem solving, and provide recommendations to state and federal agencies
- Build upon work of the ad hoc Task Force
- DNR and National Park Service currently working on a draft charter
- City of Minneapolis Task Force member

Summary

- Preventing movement into MN and the Twin Cities is unlikely due to the way the locks and dams are constructed and operated, and the swimming behavior of Asian carp
- Closing the Upper St. Anthony Falls or Ford Dam locks is the only 100% effective way to prevent fish from swimming upstream considering current technologies
- Bubble/sound barriers could slow the movement of Asian carp while other technologies are developed, but it is not 100% effective and could impact native species
- Research on control methods and habitat improvement for native species may be the most realistic, long-term solutions