



Asian Carp: A Great Lake Problem

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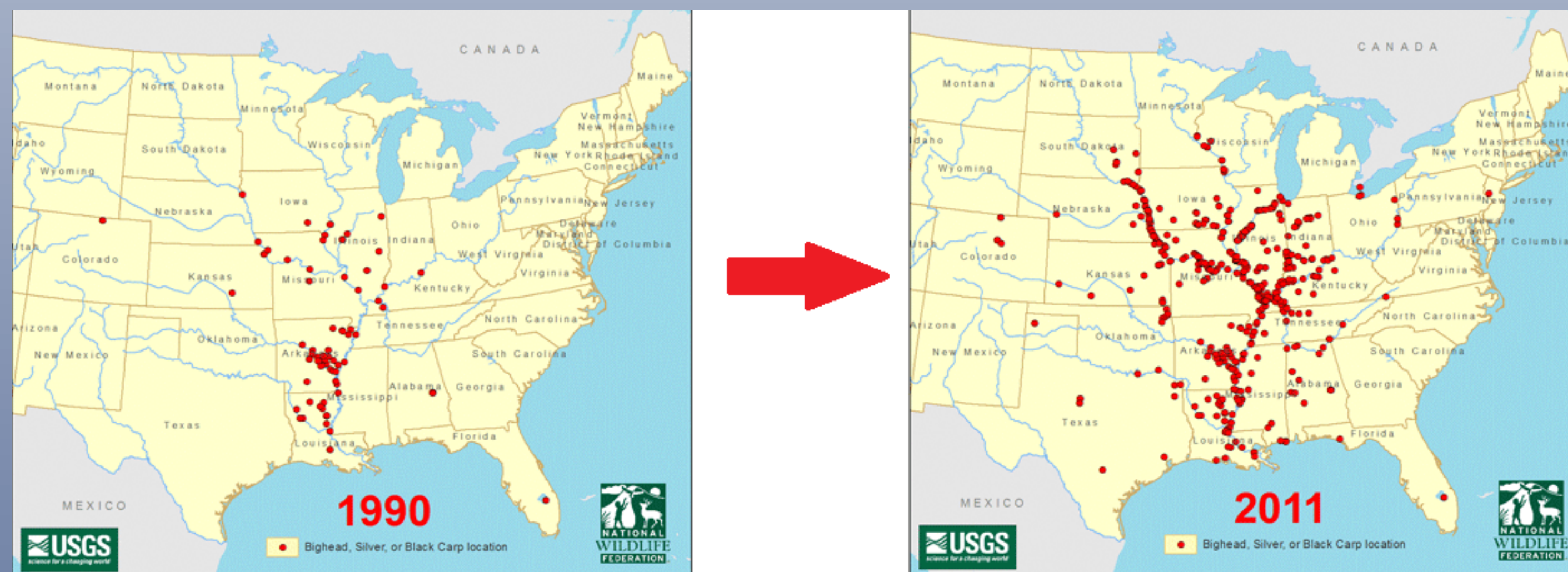
Problem

Asian carp are an invasive species that are in the Mississippi River moving towards the Great Lakes. If Asian carp entered the Great Lakes region, the biodiversity of the ecosystem and the fishing industry would suffer significantly.

Goals

1. To reduce populations of Asian carp in the Mississippi River.
2. Prevent Asian carp from entering the Mississippi River.

Asian Carp Population



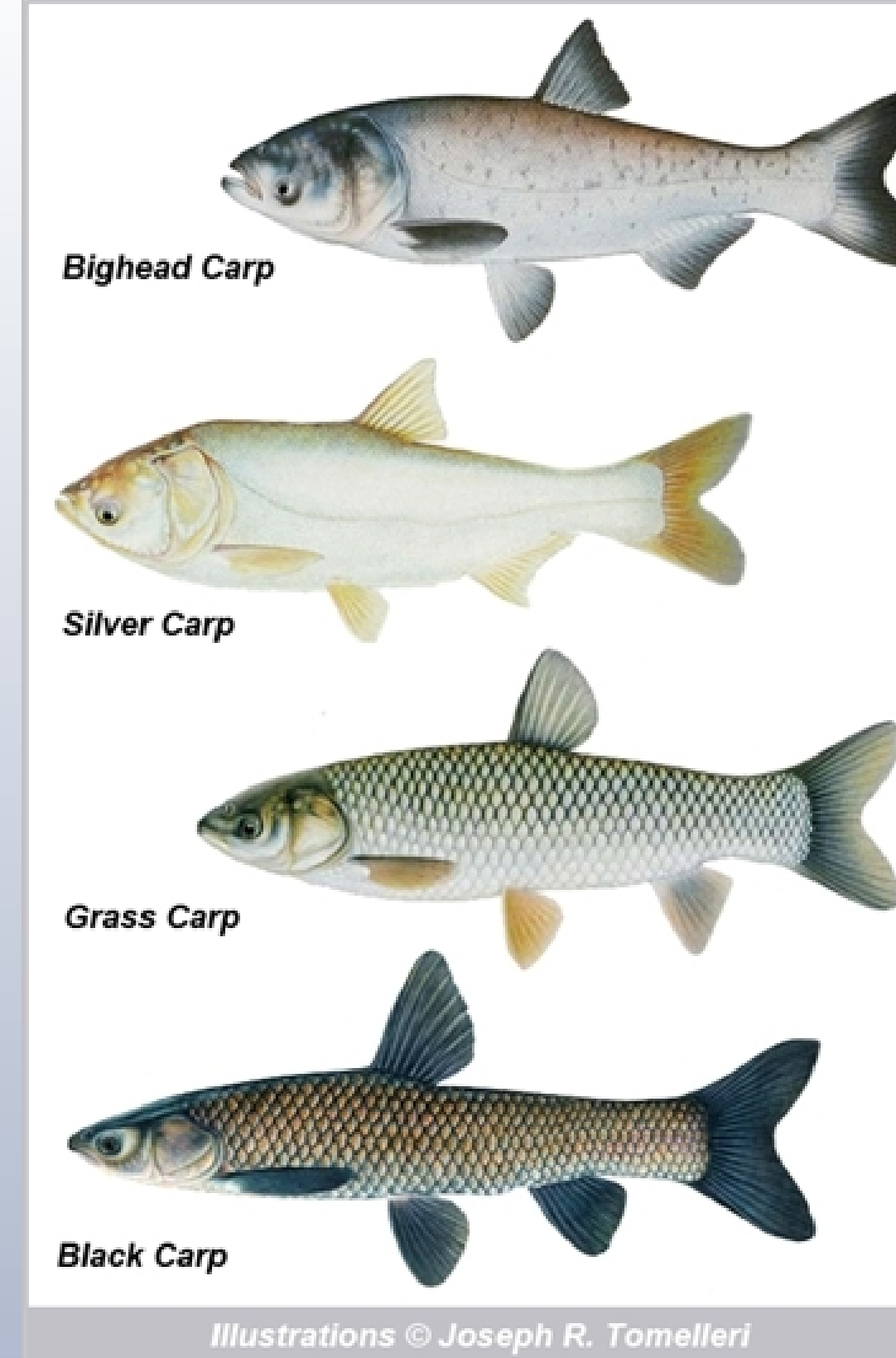
Background

Invasive species are species that are non-native to an ecosystem and are likely to cause economic and/or environmental harm¹. The Asian carp consist of silver carp, bighead carp, grass carp, and black carp. They were introduced in the United States in the 1970s to control algae growth in ponds, but when flooding occurred they established a population in the Mississippi River, and are spreading towards the Great Lakes region.

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Species of Asian Carp

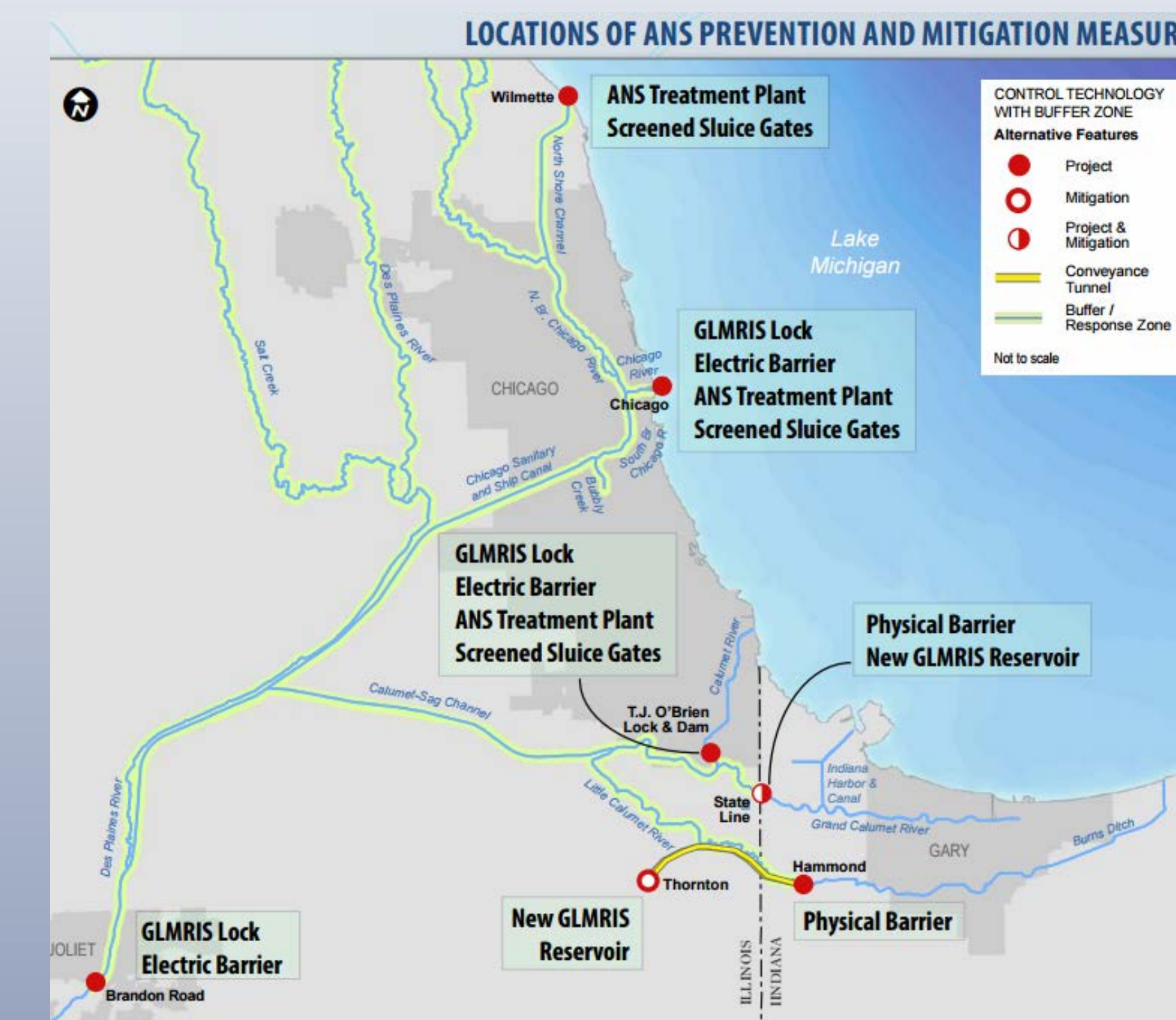


Methods



SOLUTIONS

The GLMRIS Solution



The Army Corps of Engineers performed the GLMRIS to prevent invasive species from entering the Great Lakes. The addition of technologies were proposed in GLMRIS and would be effective.

Eat Them!



There is currently no market for Asian carp in the US, but by rebranding them we could potentially make a market for consuming them.

Implement both solutions simultaneously for maximum success!

References

1. The National Invasive Species Council. (2006). Invasive species definition clarification and guidance white paper. Retrieved from <http://www.invasivespeciesinfo.gov/docs/council/isacdef.pdf>
2. Jacquet, J. L., & Pauly, D. (2008). Trade secrets: Renaming and mislabeling of seafood. *Marine Policy*, 32(3), 309-318. doi:10.1016/j.marpol.2007.06.007
3. Louisiana Sea Grant College Program Louisiana State University. (2009). Carp fillet video [Online image]. Retrieved from <https://www.flickr.com/photos/88158121@N00/4287764785>
4. National Wildlife Federation. (2015). [Graphic illustration population plot, 1990 – 2011]. Asian carp threat to Great Lakes. Retrieved from <https://www.nwf.org/Wildlife/Threats-to-Wildlife/Invasive-Species/Asian-Carp.aspx>
5. United States Army Corps of Engineers. (2014). The GLMRIS Report. Retrieved from <http://glmris.anl.gov/glmris-report/>
6. United States Army Corps of Engineers. (2014). Summary of the GLMRIS Report. Retrieved from <http://glmris.anl.gov/documents/docs/glmrisreport/GLMRISSummaryReport.pdf>