

# American Fisheries Society

## Resolution on Ecological Separation of the Great Lakes and Mississippi River Drainage Basins

**Whereas** Aquatic Invasive Species (AIS) have adversely affected the ecosystems of the Great Lakes and Mississippi River and place the biodiversity and economic uses of our native ecosystems at risk and

**Whereas** the Chicago Area Waterways (CAWs) made permanent the intermittent aquatic connection between the Mississippi River and Great Lakes drainage basins and

**Whereas** AIS including round goby *Neogobius melanostomus*, white perch *Morone americana* and zebra mussel *Dreissena polymorpha* have recently used the CAWs to expand their ranges from the Great Lakes into the Mississippi River basin and

**Whereas** the water flea, *Daphnia lumholtzi* moved into the Great Lakes basin via this pathway and bighead *Hypophthalmichthys nobilis* and silver carp *Hypophthalmichthys molitrix* are on the verge of entering the Great Lakes via the CAWs and

**Whereas** additional AIS may use the CAWs for range expansion and

**Whereas** an electric barrier has been installed on the CAWs to reduce the risk of AIS movement between the Great Lakes and Mississippi River Basin and

**Whereas** electric pulse and acoustic or visual barriers rely on organism response to be effective and

**Whereas** the electric barrier is effective only on life forms able to respond to the discomfort of the electric field and swim against the water flow and

**Whereas** the electric barrier is less effective on small fish and ineffective on planktonic life forms and

**Whereas** the CAWs are important for interstate commerce and a vital corridor for commercial and recreational navigation in the Chicago Region and

**Whereas** tow boats or barges with water ballast or damaged barges can transport water across the barrier potentially serving as a vector to move organisms independent of the organisms' response to an electric field and

**Whereas** alternative technology is available to lift and move heavy cargo, ships and recreational vessels overland and

**Whereas** the CAWs are a critical conduit for the conveyance of waste water and storm waters from Chicago and

**Whereas** water quality can be a barrier, but the effect will likely not be localized nor effective on all life stages of all aquatic organisms and

**Whereas** in order to be effective and localized, chemical barriers would require constant treatment and detoxification and

**Whereas** waste water treatment systems can be improved to treat sanitary discharges such that they meet Great Lakes discharge standards and

**Whereas** alternative solutions can be engineered to address periodic storm water conveyance needs in the CAWs now

**Therefore Be It Resolved** that the members of the American Fisheries Society call for permanent ecological separation of the Great Lakes drainage from the Mississippi River drainage to severely limit the range expansion of all AIS and other aquatic life forms via the CAWs and

**Be It Further Resolved** that the selected approach to separation of these two major Midwest watersheds should address and minimize or mitigate all impacts to the current services provided by the CAWs including commercial and recreational navigation, wastewater discharge and storm water conveyance.

Revised per the AFS Governing Board motion by the AFS Resolutions Chairman on March 28, 2011

Adopted by AFS membership vote in July 2011.