



Legislative Issue & Resolution Request - Zebra Mussels

Requested Actions:

1. Alexandria Lakes Area Chamber of Commerce requests that funds from the Legacy Act be devoted to combat the invasion of zebra mussels (control, containment, eradication).
2. Alexandria Lakes Area Chamber of Commerce requests legislation to provide the DNR with aggressive tools to halt the spread of zebra mussels (inspection, education and enforcement).
3. Alexandria Lakes Area Chamber of Commerce supports Bill SF0847.
4. Alexandria Lakes Area Chamber of Commerce further supports new legislation and the enforcement of existing legislation to prohibit transportation of zebra mussels through decontamination of watercraft and trailers and the exploration of other environmentally sound practices for eradicating zebra mussels.

Background:

Zebra mussels represent one of the most important biological invasions into North America, having profoundly affected the science of invasion biology, public perception, and policy. Zebra mussels and their pecuniary impact on recreation, trade and industry is measurable. The challenges presented by this invasive species are particularly problematic for areas like Alexandria where our lakes are vitally important.

A release of larval mussels during the ballast exchange of a single commercial cargo ship traveling from the north shore of the Black Sea to the Great Lakes in 1988 has been deduced as the likely vector of introduction to North America and now, their presence in Douglas County, MN. The rapid invasion of waterways has been facilitated by the zebra mussel's ability to disperse during all life stages. Passive drift of large numbers of pelagic larval veligers allows invasion downstream. Yearlings are able to detach and drift for short distances. Adults routinely attach to boat hulls and floating objects and are thus anthropogenically transported to new locations. Transporting recreational boats disperses zebra mussels between inland lakes.

Zebra mussels are notorious for their biofouling capabilities. They colonize pipes constricting flow; therefore, reducing the intake in heat exchangers, condensers, firefighting equipment, water pumps, and air conditioning and cooling systems. Boating can be affected by increased drag due to attached mussels. Small mussels can get into engine cooling systems causing overheating and damage.

Zebra mussels have profound effects on the ecosystems they invade. Zebra mussels are filter feeders having both inhalant and exhalant siphons. They are capable of filtering about one liter of water per day while feeding primarily on algae. They primarily consume phytoplankton, but other suspended material is filtered from the water column including bacteria, protozoans, zebra mussel veligers, other microzooplankton and silt.