2007 – 07 VIRAL HEMORRHAGIC SEPTICEMIA (VHS)

WHEREAS,

Viral Hemorrhagic Septicemia (VHS), a disease caused by an aquatic invasive species that originated in Europe, has resulted in large-scale mortalities of fish in the eastern Great Lakes. Without immediate action the disease will spread to the Duluth-Superior harbor via untreated ballast water on ships. This will seriously endanger Minnesota fish populations.

VHS is a virulent and contagious disease that causes internal and external bleeding of affected fish. Thus far, the virus has been confirmed in at least twelve Great Lakes species, including walleye, northern pike, muskellunge, yellow perch, smallmouth bass, bluegill crappie, redhorse sucker, bluntnose sucker, white bass, gizzard shad, freshwater drum, and round goby. Thousands of fish have been killed in single outbreaks. The disease was first recorded in Lake St. Clair in 2003 and is spreading very rapidly according to the USDA-APHIS Emerging Disease Notice of July 2006.

While the origin of the disease in the Great Lakes is presently uncertain, known vectors for this disease include infected fish survivors and contaminated water used for ballast in ships. Ocean-going freighters ("salties") are believed to have brought the disease into the Great Lakes, and intra-lake freighters ("lakers") can spread the disease around the Great Lakes by transporting infected fish and contaminated water.

The Duluth-Superior harbor is particularly vulnerable because more ballast water is discharged there than in any other Great Lakes port, approximately 8-16 billion gallons annually. Most of this untreated raw water comes from ports where coal and iron pellets are off-loaded in Detroit and on Lake Erie, places affected by VHS. Without effective treatment of ballast water, VHS will infect fish in the Duluth-Superior harbor and the lower St. Louis River, causing large-scale mortalities and likely spreading inland.

Existing disinfection technology can significantly reduce or even eliminate the spread of VHS by treating ballast water. Chlorination and de-chlorination treatments (including neutralization of the disinfective agent), just as are used by most municipal water and sewage treatment plants, can also destroy the VHS virus. Chlorine is a proven disinfectant for many viruses and bacteria; it has been used for water treatment for more than one hundred years. The technology has been improved over time to reduce costs and increase safety. Effectiveness improves when chlorine is applied with ammonia, forming longer-lasting chloramines that result in increased total disinfection and sterilization.

The cost of treating ballast water is estimated at $100 - $200 per ten million gallons per round trip, or less than a one-penny increase per gallon of fuel used by a typical thousand-foot lake vessel, consuming 50,000-60,000 gallons of fuel oil per round trip. Additional benefits are that most other aquatic invasive species will also be killed by the treatment. By contrast, economists estimate the cost of existing invasive species ranges from $200 million to $5 billion per year. VHS will add greatly to that toll if immediate action is not taken.

THEREFORE, BE IT RESOLVED, by the Minnesota Division Izaak Walton League of America in convention at Bloomington, Minnesota on April 29, 2007 that ballast water on ships traveling on the Great Lakes shall be disinfected to eliminate VHS (Viral Hemorrhagic Septicemia) virus with presently available technology and practice for the destruction of disease organisms and non-native invasive species. In the absence of other action, the state of Minnesota shall enact legislation requiring disinfection of all ballast water, effective immediately.

Submitted by the W. J. McCabe Chapter