

McCabe (Duluth) Chapter, Izaak Walton League of America
P.O. Box 3063
Duluth MN 55803

Comments on SDS Permit MNG300000

I. Introduction

The McCabe (Duluth) Chapter of the Izaak Walton League of America, as a recognized nonprofit operating under 501(c)3 rules, is a conservation organization dedicated to protecting our soil, air, woods, waters, and wildlife. Our chapter has approximately 100 members and is based in Duluth, Minnesota. Our members have a strong and continued interest in eliminating new introductions of Aquatic Invasive Species (AIS), as evidenced by our history of engagement on this issue. We are particularly interested in eliminating the largest and most damaging source of AIS introductions into Lake Superior: untreated ballast water.

Our federal system was established with a number of checks and balances intended to protect the public's interests. One of these checks and balances requires that if either the federal government or a state government fails to sufficiently protect a public resource, the other party is compelled to protect that resource. We have been dismayed that the federal government, to date, has not taken sufficient action to protect the Great Lakes from new introductions of AIS due to ballast water discharges. We are therefore heartened that the state of Minnesota recognizes its responsibility to protect our waters.

Given this responsibility, it is imperative that the MPCA, as the lead agency in regulating ballast water discharges, enact regulations that will sufficiently protect Minnesota waters from introduction of new AIS. We are pleased that the MPCA sees fit to regulate ballast water discharges, and we are also pleased that the MPCA recognizes the role that "lakers" play in transferring AIS around the Great Lakes, including into Minnesota waters of Lake Superior from the Lower Great Lakes.

We have several concerns about SDS Permit MNG300000, including the following: proposed vessels required to obtain permit coverage (Part 1, Section 1, "Applicability Criteria"); implementation timeline (Part 3, Section 12, "Ballast Water Treatment Schedule"); discharge monitoring and frequency for biological standards (not covered in SDS Permit MNG300000, but discussed in the document "Fact Sheet for State Disposal System (SDS) Permit MNG300000" in section D, "Discharge Monitoring and Frequency"; and biological standards (Part 5, Table A, "Biological Performance Standards for Ballast Water Treatment Technology". We specify our concerns about and proposed changes for these sections below.

II. Significant Concerns

A. Proposed Vessels Required to Obtain Permit Coverage

The McCabe Chapter of the Izaak Walton League of America recognizes the importance of risk assessment in selecting which vessels shall be regulated by this permitting process, and we appreciate the massively greater scale of the risk presented by large ships relative to watercraft with ballast tank capacities less than eight cubic meters and with lengths less than fifty meters. However, we are concerned that watercraft not covered by the language currently in the draft permit might continue to introduce AIS into our waters. We feel that the highest level of protection of our waters should be our ultimate goal, and that watercraft currently exempt under the current language should be covered, perhaps in a new section and with different regulations. Precedent exists for both regulation and treatment of ballast water discharged by such craft, such as ferries serving Isle Royale. Since inexpensive and attainable treatment options currently exist and are being further developed for such craft, we feel that such craft should be covered under SDS Permit MNG300000.

B. Implementation Timeline

The McCabe Chapter of the Izaak Walton League of America is concerned that the implementation timeline outlined in Part 3, Section 12 endangers our waters by allowing continued introduction of AIS to our waters during an unnecessarily protracted implementation period. While we recognize that dry-dock space sets practical constraints on the pace at which ships can be outfitted with permanent ballast water treatment systems, we believe that the MPCA has the authority and responsibility to consider potential temporary treatment systems that would protect our waters until a time at which all ships can be outfitted with permanent systems. These “bridge technologies” are being actively explored and need not be expensive, as described in an article written by John Myers, “Researchers Test Bleach, Vitamin C Combination for Ballast Cleanup,” Duluth News Tribune, June 22, 2008.

C. Discharge Monitoring and Frequency

The McCabe Chapter of the Izaak Walton League of America is concerned that without monitoring for compliance with biological standards, AIS could continue to be introduced to our waters in the event that treatment systems perform differently in situ than in “up front” verification testing, or in the event that treatment systems develop problems during use. Currently, draft language in SDS MNG300000 does not include provisions for monitoring of ballast water discharge for

compliance with biological standards. Regular monitoring for compliance with biological standards should be a part of any regulatory process designed to control biological agents.

Currently, draft language in SDS MNG300000 sets monitoring frequency at twice per year, with no guideline as to when sampling shall occur. Because biological activity is highest when water temperatures are warmer, biological sampling must be done during specific times of the year when samples would reflect that biological activity. Generally, this period is between July 1 and September 30. Some organisms and pathogens, including the Viral Hemorrhagic Septicemia virus, are most active at cooler temperatures. We suggest that potential AIS and pathogens be surveyed and monitoring be scheduled to coincide with periods when water temperatures favor their activity.

D. Biological Standards

The McCabe Chapter of the Izaak Walton League of America is concerned that proposed biological standards in Part 5, Table A, “Biological Performance Standards for Ballast Water Treatment Technology” do not adequately protect our waters from AIS. Because biological agents reproduce in natural systems, the only standard that will adequately protect our waters is zero viable organisms. Applying rubrics developed for non-biological pollutants—essentially, sufficient dilution to minimize adverse effects of the pollution—is not appropriate for biological agents.

The sheer volume of large ships’ ballast water discharges means that even seemingly low biological standards will result in release of many viable organisms into our waters. In the document “Fact Sheet for State Disposal System (SDS) Permit MNG300000,” Part III, “Criteria for Coverage Under the General Permit,” the MPCA refers to the example of “a vessel that carries and discharges 3,000 cubic meters of ballast water.” Applying the proposed biological standards in the draft permit, such a vessel could release a daily average of up to 30,000 viable organisms greater than 50 µm in minimum dimension while continuing to meet the biological standard. For organisms 10-50 µm in minimum dimension, such a vessel could release a daily average of up to 30,000,000,000 viable organisms while continuing to meet the biological standard. If a single ballast discharge can release thirty thousand of the larger organisms and thirty billion of the smaller organisms, the risk of such organisms establishing a viable population in our waters is too great. Zero viable organisms is the only goal that ensures protection of our waters from biological agents.

A standard of zero viable organisms is not unrealistic. Several existing treatment systems have met that standard in performance testing, as documented in the “Fact Sheet for State Disposal System (SDS) Permit MNG300000,” Appendix 1, Table 3. The MPCA cites data in this table to show “that there are systems which are expected to meet the IMO D-2 performance standards,” which formed one basis for the MPCA’s proposed biological standards. However, the most important basis for establishing a biological standard is adequate protection of our waters. Zero viable organisms is the only standard that meets that test, and the data in Table 3 shows that treatment technologies currently exist that can meet that standard.

Monitoring for viable organisms must include monitoring for fish pathogens, including viruses, bacteria, and parasites. The proposed category of organisms 10-50 microns in diameter may not include all such pathogens, particularly viruses. The discharge permit must be drafted in a way such that all fish pathogens are covered.

Standards for fish pathology monitoring are not set by the federal government (USEPA) as is the case with other discharge parameters. Such pathology standards are set collectively by certified North American fish pathologists under the American Fisheries Society, Fish Health Section. This group publishes and keeps current the Fish Health Bluebook, which defines these standards. Unless the Fish Health Bluebook is specifically cited as the standard, monitoring for fish pathogens will lack both credibility and efficacy. Finally, since fish pathogens usually spread via infected fish, it is imperative that any viable AIS found in ballast water discharges be monitored for pathogens.

III. Conclusion and Recommendations

The McCabe Chapter of the Izaak Walton League of America proposes that the above areas of the draft SDS Permit MNG300000 be modified to address our concerns. We are particularly troubled by the proposed biological standards and the proposed implementation timeline. As currently written, the language in this permit offers no protection for our waters until 2012, and it doesn’t offer “full” protection until 2016. After those dates, the proposed biological standards would allow tens of billions of viable organisms to be released into our waters. If these areas are not addressed, the costs of AIS will continue to tax our resources—natural and economic alike. We cannot afford that cost.