

**ST. CROIX NATIONAL SCENIC RIVERWAY  
AQUATIC INVASIVE SPECIES  
INTERAGENCY TASK FORCE  
2015 ACTION PLAN FOR THE LOWER ST. CROIX RIVER  
March 22, 2015**

**Background**

The introduction of non-native aquatic invasive species (AIS) into Minnesota and Wisconsin waters threatens the ecology of the region's and states' water resources, and may harm industrial, recreational and subsistence use of the infested waters. Minnesota and Wisconsin have been subject to the invasion of non-native aquatic species since the settlement of the region by Europeans. Although many human activities may spread AIS, on the St. Croix River, the main potential pathway for dispersal of adult or larval zebra/quagga mussels (hereafter *Dreissena spp.*) is by recreational watercraft and other vessels. For the 2013 recreational watercraft season, the focus of this action plan will be *Dreissena spp.*, but includes selected AIS (e.g., Asian carp, VHS and Eurasian watermilfoil).

*Dreissena spp.* are small non-native bivalves introduced into the United States in the Great Lakes region in the late 1980's. They have since rapidly spread into connected water bodies, primarily through attachment to, and spread by, commercial traffic. They have also expanded into inland waters in 23 states and two provinces mainly through recreational watercraft transport. This invader has been documented to kill native unionid mussels, disrupt ecosystems, impact fisheries, damage municipal water supplies and industrial intakes, damage boats, and impair water recreation. There are no environmentally safe control methods once the mussels have been established in a water body.

In response to the threat of this invader, a St. Croix River Zebra Mussel Task Force (Task Force) was formed in 1992 (currently known as the St. Croix National Scenic Riverway Aquatic Invasive Species Interagency Task Force). A Zebra Mussel Response Plan, prepared in 1993, was implemented to try and keep the zebra mussel from spreading into the St. Croix River. The primary focus in the first years of the plan was to enlist public support through voluntary watercraft restrictions. However, the discovery in 1994 of boats moored in the river with attached zebra mussels resulted in the decision that voluntary actions were not sufficient to prevent movement of these mussels. The NPS enacted emergency travel restrictions for the 1995 season, preventing northbound traffic past the Arcola sandbar unless the owner met specific conditions (see Appendix A).

Beginning in 1994, zebra mussels have been found on boats within the lower 25 miles of the river and in 1997, singularly on substrate such as native mussels and rocks south of the Stillwater Lift Bridge. However, during the summer of 2000, the settlement of juvenile zebra mussels from reproducing adults was discovered in the last 16 miles of the Lower St. Croix National Scenic Riverway. Monitoring since 2001 suggests reproduction now occurs south of the Stillwater Lift Bridge (~River Mile 22).

Minnesota regulations prohibit transport of *Dreissena spp.* and other AIS either via the waterways or overland. The state has a legal definition of infestation and AIS. NPS regulations

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also prohibit zebra mussel transportation into the lower St. Croix River north of Stillwater. Due to the reproduction of zebra mussels downstream of Stillwater, the State of Minnesota legally declared this portion of the river infested in 2001. This status regulates the transport of water (bait buckets, live wells, etc.) from the St. Croix River into the State. In Wisconsin, the invasive species rule reads as follows: NR 40.04, prohibited category (3.a) ... no person may transport, possess, transfer or introduce a prohibited aquatic plant, algae, cyanobacteria, terrestrial vertebrate, fish, crayfish or other aquatic invertebrate invasive species identified or listed under sub. (2). NPS regulations published in the Federal Register on June 23, 1997, are in effect for the St. Croix River upstream of Stillwater, including waters designated by the state of Minnesota as “infested.”

In 1998, the Governors of Minnesota and Wisconsin, and Chairpersons from the Anishinabe (Ojibwe) tribes signatory to the 1837 treaty, submitted a comprehensive interstate management plan for the prevention and control of AIS to the Federal Aquatic Nuisance Species Task Force to obtain federal funding. The plan was approved and the states and tribes have received federal funds to implement the AIS management plan.

### **St. Croix National Scenic Riverway Aquatic Invasive Species Interagency Task Force**

The purpose of the St. Croix National Scenic Riverway Aquatic Invasive Species Interagency Task Force (formally the *St. Croix Zebra Mussel Task Force*) is to help agencies and stakeholders slow the spread and prevent new populations of *Dreissena spp.* further upstream in the St. Croix River and into other waters in Minnesota and Wisconsin. The Task Force also seeks to actively identify other aquatic invasive threats and reduce their harm. The Task Force tries to accomplish this by developing strategies, assessing the effectiveness of strategies that are implemented and recommending tools to use against the zebra mussel and other AIS, by linking agencies and stakeholders in this effort. The Task Force also supports nationwide efforts, such as the Stop Aquatic Hitchhikers! Program, which uses a uniformed message to educate the public about AIS and what can be do to stop the spread. Participants in the Task Force have included: National Park Service (NPS), U.S. Fish and Wildlife Service (USFWS), Wisconsin and Minnesota Departments of Natural Resources (WDNR, MDNR), Xcel Energy, University of Minnesota Sea Grant Program (MN Sea Grant), Macalester College, Biological Resources Division of the U.S. Geological Survey (USGS), U.S. Coast Guard (USCG), U.S. Army Corps of Engineers (USACE), Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and the St. Croix Marinas Association.

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### 2015 Action Plan

This plan outlines strategies and actions proposed by the participating agencies for the 2015 season to help accomplish the Task Force purpose and implement actions from the St. Croix Scenic Riverway Comprehensive Interstate Management Plan. Thus, implementing this action plan will help attain the following goals of the comprehensive interstate management plan:

**Goal I: Prevent or slow the spread of aquatic invasive species into and within the St. Croix River.**

**Goal II: Abate harmful ecological, economic, social and public health impacts resulting from infestation of aquatic invasive species.**

#### Strategy IA: RISK IDENTIFICATION AND PRIORITIZATION

Determine the AIS that have the potential to infest the St. Croix River. Identify existing and potential transport mechanisms that are likely to introduce these species.

- a. Provide a prioritized list of threats from pathways and species using Hazard Analysis and Critical Control Point methods and other tools to aid in future prioritizing activities in annual action plans and the comprehensive interstate plan. (NPS)

#### Strategy IB: REGULATIONS AND ENFORCEMENT

Publicize and enforce regulations to prevent introductions into the St. Croix River.

- a. Publicize all state and federal regulations prohibiting the transport of *Dreissena spp.* and AIS. (MDNR, NPS, WDNR, MN Sea Grant)
- b. Inspect watercraft leaving and/or entering at St. Croix River and other public access sites in Minnesota and Wisconsin to reduce the potential for transport of *Dreissena spp.* and other AIS. (MDNR, WDNR, NPS)
- c. Provide regulatory and AIS information to marina owners/operators to assist in education and compliance by their boating clientele. (MDNR, MN Sea Grant, NPS, WDNR, USFWS)
- d. Continue permit boating restrictions established in 2001 at river mile 28.5 (High Bridge) (NPS).
- e. Enforce infested watercraft laws by randomly inspecting (using scuba, travel history, dockage, etc.) riparian boats with special use permits located in the noninfested waters of the St. Croix River. Staff may respond with appropriate information, orders or citations to achieve compliance. (NPS)

#### Strategy IC: MONITORING FOR AQUATIC INVASIVE SPECIES

Develop/maintain monitoring programs in the St. Croix River watershed to provide for the early detection of infestations for use in management decisions and actions.

- a. Continue passive *Dreissena spp.* monitoring stations (settling plate samplers and slides) on the St. Croix and Namekagon rivers and watershed lakes (NPS, USFWS, M/WDNR)
- b. Continue dive searches for *Dreissena spp.* on river substrate, marinas, boats, and other possible attachment sites. This action will be done in the St. Croix and Namekagon rivers and selected lakes within the watershed upstream of the infested area. (MDNR, NPS, USFWS, USACE)

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- c. Collect and analyze water samples for veliger densities. Areas included for sampling are Prescott, Hudson, Stillwater, Marine-on-St. Croix, St. Croix Falls, Soderbeck Landing and flowages on the Sunrise and Snake rivers. Events will occur in July and August. (NPS, USACE)
- d. Collect and analyze water samples for veliger presence. Plankton tows will be taken at high risk water bodies in the upper St. Croix watershed. These include in Minnesota: St. Croix Flowage - Chisago County; Impoundment-Kost Dam - Chisago County; North Center Lake - Chisago County; Rush River - Chisago County; Pokegama Lake - Pine County; Cross Lake - Pine County; in Wisconsin: Minerva Lake -Burnett County; Yellow Lake - Burnett County; Clam River Flowage - Burnett County; Memory Lake (Wood Creek) - Burnett County; Big Trade Lake - Polk County; Bone - Polk County; Balsam - Polk County; Deer - Polk County (WDNR, NPS, USACE)
- e. Conduct quantitative sampling at Prescott, St. Croix Bluffs, Kinnickinnic Narrows, Afton, Lake St. Croix Beach, Hudson, Bayport, and Stillwater (NPS, USFWS, USACE).
- f. Begin zebra mussel/Native mussel competition and predation study to assess impact of the invasive on the native and discover the relationship of molluscivorous fish on both (USGS, NPS).
- f. Conduct aquatic macrophytes survey on the St. Croix River from Gordon Dam to St. Croix Falls. Note invasive plant species for further management action (NPS).
- g. Monitor for Asian carp species in the nearby areas of the Mississippi River (WDNR, MDNR, USGS, NPS).
- h. Monitor for VHS in waters of the state and alert Task Force if there is an imminent treat to the St. Croix (WDNR, MDNR).

### **Strategy ID: INFORMATION AND EDUCATION**

Continue an effective information/education program on the prevention of aquatic invasive species introductions into or within the St. Croix River.

- a. Maintain AIS information signs at public access sites along the river. (MDNR, NPS, WDNR)
- b. Continue general AIS public outreach and communication efforts on biology, impacts and regulations through such media as billboards, radio spots, and literature distribution. (GLIFWC, MDNR, MN Sea Grant, NPS, USFWS, WDNR)
- c. Provide information on the NPS regulations to riparian land owners and marina slip owners on the St. Croix River prior to boating season. (NPS)
- d. Provide agency staff and commercial businesses (marinas) along the Mississippi and St. Croix Rivers with information (such as brochures, posters, fact sheets and the annual Action Plan) about the threat posed by *Dreissena spp.* and other aquatic invasive species. (MDNR, MN Sea Grant, NPS, USFWS, WDNR)
- e. Contact boaters with prevention information at water accesses on the Minnesota and Wisconsin sides of the St. Croix. (MDNR, WDNR)
- f. Provide information on AIS to boating public at lock and dam areas. (USACE)
- g. Provide information to public at river community public events (NPS, USFWS)
- h. Provide information about the Task Force and St. Croix-specific regulations via the

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Minnesota/Wisconsin DNR web sites:

<http://www.dnr.state.mn.us/eco/invasives.html>

[http://dnr.wi.gov/news/mediakits/mk\\_invasive\\_species.asp](http://dnr.wi.gov/news/mediakits/mk_invasive_species.asp)

General aquatic invasive species information through the DNR sites or linked sites

<http://seagrant.wisc.edu/ais/>

<http://www.seagrant.umn.edu/ais/>

and provide zebra mussel information at the NPS web site

<http://www.nps.gov/sacn/naturescience/zebra-mussels.htm>

(MDNR, WDNR, MN/WI Sea Grant, NPS)

- i. Continue to display zebra mussel and AIS exhibits at NPS visitor centers and to present programs on *Dreissena spp.* to park visitors, school and civic groups, and other interested parties (NPS)

### **Strategy IE: EXPLORE NEW PREVENTION TECHNIQUES**

Once potential invasive threats and pathways have been identified, provide for the physical prevention of these species.

- a. Provide funds for a feasibility study of a fish barrier at or below the mouth of the St. Croix River to prevent Asian carp from entering from the Mississippi (MDNR, USACE).

### **Strategy IIA: CONTROL**

Research, discuss, and implement control methods against *Dreissena spp.* that may aid in reduction or elimination of populations. (MDNR, MN Sea Grant, NPS, USFWS, WDNR)

- a. The NPS has established threshold levels (one positive find) in their Integrated Pest Management Plan for *Dreissena spp.* and will use these levels to implement increased NPS actions in the river upstream of Stillwater. (NPS)
- b. Direct the removal and cleaning of boats that are found to have *Dreissena spp.* attached in noninfested areas of the St. Croix River. (Marinas, MDNR, NPS, WDNR)
- c. Based on monitoring results from Strategy IC, the Task Force will review this and all other strategies. (GLIFWC, MDNR, MN Sea Grant, NPS, USFWS, WDNR)
- d. Implement the *Aquatic Invasive Species: Hazard Assessment and Critical Control Point Plan* to ensure that management, conservation officers, researchers, consultants, and commercial operators are taking appropriate precautions to prevent the spread of *Dreissena spp.* and other aquatic invasive species via field operations. (MN Sea Grant, NPS, USFWS, USGS)

### **Strategy IIB: RESEARCH**

Monitor/support/coordinate scientific research between state and federal agencies and academic institutions that investigate possible environmentally safe control methods to use against zebra mussel and other AIS. (MDNR, MN Sea Grant, NPS, USFWS, WDNR, USACE)

- a. Obtain and evaluate information on possible control methods and ongoing research through research conferences, Internet access, and other sources (USACE, MDNR, MN Sea Grant, NPS, USFWS, WDNR, USGS, others)

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**Appendix A.**

**NATIONAL PARK SERVICE VESSEL ACCESS RULES**

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**2015 BOATING SEASON**

The National Park Service will continue to restrict upstream travel at the Soo Line Railway High Bridge (mile 28.5) to protect Riverway aquatic resources from the accidental introduction of *Dreissena spp.* and certain other aquatic invasive species. Using existing regulatory authority found in the Code of Federal Regulations Title 36 Sections 3.3 and 7.9, the National Park Service may provide a special use permit for upstream travel past the Zebra Mussel checkpoint under the following case-by-case conditions:

A. The vessel is legally moored (north of mile 25.4 and south of Marine on St. Croix) on the St. Croix River by a riparian land owner or marina slip renter/owner. A riparian land owner is someone who owns property directly on the river, or someone who has legal, deeded access to the river.

1. The owner/operator agrees to not operate the vessel south of Mile Long Island (25.4) or in any infested waters, including the Mississippi River, at any time. This condition is subject to change if *Dreissena spp.* are found upstream of Stillwater.

2. The owner/operator contacts NPS staff prior to removing the vessel from the noninfested zone of the St. Croix River.

3. The owner/operator retains possession of (or maintains onboard) the currently issued special use permit. This permit will be available for review by NPS staff during contacts on the river, or by request to our office.

B. The owner/operator of a vessel has been issued a same-day pass from authorized personnel. The pass will be issued subject to the following conditions:

1. If the vessel is new and never been operated in open water, or has only been operated in noninfested water above mile 25.4 on the St. Croix.

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2. If the vessel has been operated in infested water below mile 25.4, the vessel must undergo one or both of the following prior to placement in noninfested waters:

- a. Remain out of the water over the winter, or operated and moored in water below 50° F exclusively, and be visually inspected for attached *Dreissena spp.*. The vessel must then travel upstream when water temperatures (less than 50° F) and other factors minimize possibility of zebra mussel transport (such as launch location).
- b. Be removed from the water and cleaned with a high pressure hot water wash (104+ degrees Fahrenheit) and be visually inspected for attached *Dreissena spp.*. The vessel must then travel upstream when water temperatures (less than 50° F) and other factors minimize possibility of zebra mussel transport.

Visual inspection and cleaning must include all areas that *Dreissena spp.* may attach to or reside in: hull, motor mounts, intakes, trim tabs, swim platforms, live wells (must be dry), and trailers. Visual inspections should be performed by agency staff or other qualified persons.

Vessels traveling upstream beyond the High Bridge must meet the conditions outlined above. Vessel owner/operators not conforming to the above conditions are in violation of 36 CFR Sections 2.32 Interfering with Agency Functions, 3.3 Permits, and 7.9(c) Vessels. Violators may be required to appear before a federal magistrate and may be subject to a fine of up to \$5000.00 and/or imprisonment for up to 6 months.

Vessel owner/operators in violation of the above regulations (e.g., with a vessel containing *Dreissena spp.*), are also in violation of 36 CFR section 2.1(a)(2) Preservation of Natural, Cultural, and Archeological Resources, and may be in both civil and criminal violation of 16 U. S. Code Chapter 53 Control of Illegally Taken Fish and Wildlife, Section 3372(a) Prohibited Acts - Offenses other than Marking Offenses. Violators will be subject to a mandatory court appearance before a federal magistrate and may be subject to a fine of up to \$5000.00 and/or imprisonment for up to 6 months.