



Section 1:

What is the program all about?



Wisconsin's Aquatic Invasive Species Management Plan

Wisconsin's aquatic ecosystems are experiencing significant negative effects from aquatic invasive species (AIS) that are already present, and the state's waters are continually threatened by new invasions. The introduction of AIS into the Great Lakes and inland state waters is a source of biological pollution that has significant negative effects on natural resources, human health, recreational opportunities and other ecosystem services throughout the state and region. AIS may compete with native species for food and habitat and can directly and indirectly harm or displace native species, degrade habitat and alter food webs and energy flow. AIS can also have significant economic effects on waterfront property values, tourism, utilities and other industries.

AIS enter and disperse in Wisconsin waters through various human-assisted pathways, including maritime commerce, recreational activities, non-recreational fishing and aquaculture, canals and diversions, the trade of live organisms and tourism and development activities. Actions taken to date to prevent the introduction of new AIS include regulatory and voluntary efforts and educational programs to increase awareness and compliance with AIS prevention practices. Monitoring, surveillance, management and control efforts by a variety of partners have contained the spread and reduced negative impacts of AIS already in Wisconsin. However, much work remains to protect Wisconsin's waters from new introductions and to contain and control existing AIS populations so that valuable ecosystem services are retained.

Wisconsin has had an AIS management program since 2001 and drafted its first statewide AIS management plan in 2003. Since then, new invasive species have been found in Wisconsin, new technologies and methods have been developed to manage invasions and new regulatory programs have provided additional resources to the Wisconsin Department of Natural Resources (WDNR) and its partners to aid in AIS management. These changes have necessitated a revision of the current Wisconsin AIS Management Plan, which began in 2014 and ended in 2018.

This plan retains three main goals:

GOAL 1: Prevent the introduction of new AIS into Wisconsin.

GOAL 2: Contain the spread of AIS in Wisconsin.

GOAL 3: Control existing populations of AIS to minimize harmful impacts.

One important difference in the new plan, however, is that it implements an approach that organizes strategies and actions by invasion pathway. This new approach will maintain the plan's relevance even as specific AIS threats change and will allow for effective action across a number of different species.



Wisconsin's continued success at AIS prevention, containment and control requires the establishment of priorities. The broad spectrum of challenges and limited resources requires that Wisconsin take a strategic approach and establish priorities to guide its AIS actions. A set of overarching priorities, as well as priorities that correspond to the plan's three goals, has been developed and is discussed below. Some priorities are continuations from the previous plan while others are new to the updated plan.

Overarching Priorities – *Prevent, Contain, Control*

- ◆ Develop communication tools and strategies that promote sustainable behaviors among the state's water users
- ◆ Implement the AIS program through strong partnerships
- ◆ Maintain or increase funding levels and staffing
- ◆ Strive to find opportunities to strengthen interstate partnerships for consistent messaging and program implementation

Pathway Priorities – *Prevent, Contain*

- ◆ Expand recreational water user outreach beyond summer recreational boaters to waterfowl hunters, trappers, wading anglers, etc.
- ◆ Increase efforts to address organism in trade (OIT) invasion pathways by expanding outreach to industry and consumers and by developing collaborative solutions to prevent pet release and water garden disposal introductions

Management Priorities – *Contain, Control*

- ◆ Expand capacity within local organizations for citizen-based monitoring
- ◆ Use targeted, random and convenience approaches to AIS monitoring
- ◆ Work with other state and local organizations to implement the state's Rapid Response Protocol to ensure consistent responses to new invasions

Control Priorities – *Control*

- ◆ Continue to refine existing AIS control technologies to make them more effective and/or to reduce non-target impacts
- ◆ Support research to develop new AIS control technologies
- ◆ Promote the use of Integrated Pest Management (IPM) principles in all management plans and efforts



Photo provided by Amy Kowalski



GOALS

GOAL 1:

Prevent the introduction of new aquatic invasive species into Wisconsin

In addition to the impacts listed in the introduction, the response to new invasions is itself costly. Once AIS are present in an environment, the impacts are at best technically challenging and often impossible to reverse, resulting in ongoing management costs (e.g., \$4 million of state AIS program funding). Although at least 182 nonnative aquatic species already have been introduced into the Great Lakes ecosystem, new introductions are still highly likely (NOAA 2011). Thirty-seven species classified as invasive are currently present in Wisconsin. Given limited resources and the extreme difficulty of eliminating established AIS, the prevention of new introductions is critical. The unpredictable and unanticipated nature of effects from AIS and their long-term costs highlight the importance of prevention as a top priority for AIS management.

GOAL 2:

Contain the spread of aquatic invasive species in Wisconsin

While natural dispersal and range expansion exist, nearly every problematic biological invasion has been human mediated, meaning that human behavior was responsible for the initial introduction of a species to a new habitat. Since human behavior can change and actions can be taken to reduce or eliminate risk of invasions resulting from that activity, almost every invasion is theoretically preventable. Wisconsin will work with federal partners and neighboring states to prevent new invasions into the state. Movement of AIS within Wisconsin

is something over which the state has more direct control and will work to stop.

Recreational activities, primarily boating, are the most common secondary invasion pathway in Wisconsin, but the other invasion pathways described in this management plan also contribute to the secondary spread of AIS in Wisconsin. Decreasing the risk of AIS transport through these pathways is the best way to keep Wisconsin's waters free from any one AIS.

GOAL 3:

Control existing populations of AIS to minimize harmful impacts

Once an AIS is established in Wisconsin, it is difficult, if not impossible or cost prohibitive, to eliminate it from the state. While eradication efforts in most cases are unfeasible, tools exist to manage existing populations of AIS to reduce impacts. When used appropriately and within the context of an AIS management plan, these tools can protect ecosystems and reduce societal impact. Control activities not only benefit the waterbody where they occur but can also contain the spread of AIS to other waterbodies. New control options (e.g., Zequanox, microparticle control) combined with a better understanding of existing options (e.g., hand pulling, 2,4-D) will make management of problematic populations more effective.

If you'd like to read more about Wisconsin's AIS Management Plan, the complete updated plan can be viewed here:

<https://publications.aqua.wisc.edu/product/wisconsin-aquatic-invasive-species-management-plan/>.



The Aquatic Invasive Species Volunteer Program Vision

The Aquatic Invasive Species Volunteer Program promotes water resource stewardship by actively involving individuals in preventing the spread of aquatic invasive species that can harm Wisconsin's ecosystems, economy, and recreational opportunities.

Citizen involvement in watercraft inspections and monitoring for invasives increases public awareness about the potential impacts of aquatic invasive species. Volunteers serve to inform and educate the public about how people can help prevent the spread of invasives by inspecting their watercraft and removing aquatic plants and animals from their boats and equipment before leaving an access site.

To accomplish these objectives, the volunteer program supports:

- ◆ Watercraft inspections for aquatic invasive species.
- ◆ Communication with the public about the laws and issues surrounding the existence, spread, and effects of invasives to Wisconsin's waters.
- ◆ Distribution of educational resources and publications.
- ◆ Collection of data to evaluate the potential spread of invasive species, public awareness of invasive species issues, and the effectiveness of the invasive species program.
- ◆ Response to technical inquiries from the public concerning invasive species.