Progress Toward Implementing the Minnesota Management Plan for Invasive Species, 2009 to early 2022

In 2022, the Minnesota Invasive Species Advisory Council (MISAC) revised its Minnesota State Management Plan for Invasive Species. Between early 2022 and 2009, when the original version of the plan was completed, there has been much progress and change in invasive species management in Minnesota. The purpose of the plan is to provide a framework to coordinate and guide efforts to prevent the introduction, reduce the spread, and promote appropriate management of invasive species populations within the state. This document provides a brief summary of progress toward implementation of the plan from 2009 to early 2022, as well as additions to the revised 2022 plan that are expected to further support implementation.

Successful invasive species prevention hinges upon public participation in and practice of prevention behaviors (for example, cleaning boots, inspecting and removing plants and animals from watercraft, and not releasing pets or plants). The 2009 plan listed a selection of invasive species that posed severe or moderate threats. For some of these species, their spread has been slowed or halted, such as emerald ash borer, spongy moth, and faucet snails. Intensive multi-state programs have thus far successfully prevented the upstream movement of invasive carp within the Upper Mississippi River basin. Other species, such as zebra mussels and Eurasian watermilfoil, have continued to spread (from 24 to 295 and 232 to 384 confirmed infested water bodies, respectively, based on numbers from the 2009 plan and the DNR's November 22, 2021 infested waters list). Despite the fact that some species have continued to spread, many of Minnesota's lands and waters are free of invasive species of concern: for example, fewer than 4% of Minnesota lakes are listed as infested with zebra mussels. Increased and continued collective public practice of invasive species prevention behaviors is critical to protecting those spaces.

While some invasive species have spread and the spread of others has been slowed or prevented, there have been many advances and some shortfalls in invasive species prevention, management, research, available funding and regulation since 2009. A complete history is beyond the scope of this document but highlighted changes include:

- 2010: New regulation required drainage of boating-related equipment, live wells and bilges when leaving state waters.
- 2010: The Minnesota Department of Agriculture initiates biological control insect releases for emerald ash borer.
- 2010-2018: On behalf of the Great Lakes Sea Grant Network, Minnesota Sea Grant (MNSG) led the first comprehensive aquatic invasive species outreach campaign with support from partners.
- 2011: Increased authority for watercraft inspection and stronger regulations to prohibit transportation of aquatic invasive species on watercraft and equipment.
- 2011: First risk assessments completed by the Minnesota Department of Agriculture's Noxious Weed Advisory Committee.
- 2011: New legislation passed concerning movement of docks and lifts and creating the DNR's Lake Service Provider program.

- 2012: The DNR launches the *PlayCleanGo: Stop Invasive Species in Your Tracks* outreach program. By 2022, the program is used by more than 600 partners across multiple countries.
- 2012: Founding of the Minnesota Aquatic Invasive Species Research Center.
- 2013: Convened the DNR Statewide Aquatic Invasive Species Advisory Committee.
- 2014: A county tax bill was passed that provides \$10 million annually for local aquatic invasive species prevention, known as Local Aquatic Invasive Species Prevention Aid.
- 2015: Discovery of starry stonewort in Minnesota and the initiation of control efforts and research.
- 2015: Founding of the Minnesota Invasive Terrestrial Plants and Pests Center.
- 2016: Palmer amaranth, an MDA Prohibited-Eradicate Noxious Weed, was found in Minnesota, launching a concerted early detection and rapid response effort.
- 2017: Launched the University of Minnesota Extension AIS Detectors citizen science program.
- 2017: MNSG and Minnesota Aquarium Society held the first Habitattitude Surrender event.
- 2018: Through trainings, workshops and contracts, the DNR and partners began development and implementation of community-based social marketing approaches to invasive species outreach efforts.
- 2019: The DNR hosted a workshop to discuss selected research projects and federal regulatory frameworks for genetic biocontrol.
- 2019: The DNR began new projects to prevent invasive species through trade pathways, such as aquariums, water gardens, live seafood and bait, and classrooms and biological supply.
- 2019: MISAC revised its <u>Ratings of Invasive Species of Concern to Minnesota</u>, an educational and informational species list that can be used by managers, policy makers, researchers and other interested parties.
- 2020: The percentage of Minnesota waters infested by aquatic invasive species rose to 8%.
- 2008-2022: MISAC biennially co-hosted the Upper Midwest Invasive Species Conference, which has grown into one of the largest invasive species conferences in the world.
- Great Lakes regional coordination has increased through partnership such as the Great Lakes and Mississippi River Basin panels on aquatic nuisance species, Midwest Invasive Plant Network, Woody Invasives of the Great Lakes Collaborative, and others.

Sections of the <u>Minnesota State Management Plan for Invasive Species</u> that can be referred back to for evaluating implementation include:

- Invasive Species Threats to Minnesota
- Gaps in Invasive Species Authorities, Funding and Program Implementation
- Elements, Desired Outcomes, Strategies and Actions
- Priorities for Action, including the organization-specific development of SMART (specific, measurable, actionable, relevant, and time-bound) metrics to help determine if efforts toward implementation are achieving desired outcomes

Partners planning activities can refer to these sections to assist with plan implementation, as described in the "Guide for Partner Implementation" on <u>MISAC's website</u>. As described in the revised plan's section entitled "Program Monitoring and Evaluation", MISAC will evaluate implementation of the plan every four years.