

Aquatic invasive species prevention program

Preventing the spread of aquatic invasive species: 2018 accomplishments

Hennepin County has received funding from the State of Minnesota since 2014 to carry out or support activities that prevent the introduction or limit the spread of aquatic invasive species. Aquatic invasive species are “non-native, aquatic organisms that invade water beyond their natural and historic range” (Minnesota Statute 477A.19). Aquatic invasive species may harm economic, environmental or human health and threaten our natural resources. A list of prohibited, regulated and unregulated non-native species is available at dnr.state.mn.us/invasives/laws.

In 2018, Hennepin County received about \$317,000 to implement projects that prevent the spread of aquatic invasive species. Many of the projects were conducted by partners who received pass-through grants from the county, while others were implemented by county staff. Funding was used for inspections at public accesses, outreach and education, early detection and monitoring, research, boat cleaning facilities and more. Learn more about the grants and funding guidelines at hennepin.us/aisprevention. The following provides a summary of the project accomplishments in 2018.

Early detection

Early detection efforts involve training citizen volunteers to work alongside scientists to conduct lake surveys as well as to look for signs of aquatic invasive species in their daily activities. These efforts focus on early detection of aquatic invasive species where management options may still be available.

- A limnologist worked with lakeshore homeowners to investigate their lake for a day. Four new lakes throughout the county were investigated, training lake groups and new volunteers. One aquatic invasive species was detected that was not listed with the Minnesota Department of Natural Resources. Several others were found that were already known to occur in the lakes. In addition to surveying the lakes with lake groups, the limnologist also provided assistance identifying samples and answering questions regarding AIS and AIS monitoring.
- Several lakeshore homeowners were empowered to continue monitoring for aquatic invasive species on their own. The county supports these residents by sending an e-newsletter with information about what to look for and updates specific to AIS prevention.



Lakeshore homeowners work with a limnologist to look for aquatic invasive species on Lake Independence.

Inspections

Having inspectors on site at public accesses is an effective way to ensure people are taking the necessary actions to prevent the spread of aquatic invasive species.

- Watercraft inspections were expanded by partnering with the Three Rivers Park District, Lake Minnetonka Conservation District, and Christmas Lake Homeowners Association. This funding supported more than 4,000 hours of inspector time at 11 public water accesses on 7 lakes. This funding facilitated 13,399 inspections. The county also assisted to fund and operate three decontamination units in partnership with the Three Rivers Park District and Bassett Creek Watershed District.



An inspector on Lake Minnetonka helps ensure boaters take the necessary actions to prevent the spread of aquatic invasive species.

Boat access re-design and boat cleaning stations

The county's research shows that redesigning accesses can be an effective tool to prevent the spread of aquatic invasive species. In 2018, The county conducted observations of boater's behaviors and found that public accesses redesigned to emphasize aquatic invasive species prevention actions had half the violation rates and self-inspection rates increased by one-third. The county's current behavior change strategies at accesses include:

- CD3 waterless cleaning system that provides the tools for boaters to take appropriate actions.
- Pavement markings to influence traffic flow.
- Designated locations to take aquatic invasive species prevention measures.
- Signs to prompt the desired behaviors.

These measures can help overcome the issue of boaters operating on auto-pilot as they complete the tasks to launch or remove their watercraft and prompt them to take the necessary actions. At the Spring Park access in 2018, observers found that 87 percent of boaters followed the traffic markings and stop bars and 96 percent followed the proper prevention actions.

New in 2018, CD3 waterless boat cleaning stations were installed at Long Lake and Bush lake. Stations are also available at the North Arm and Spring Park accesses on Lake Minnetonka as well as Bryant Lake, and Riley Lake. Over the 4th of July week in Hennepin County, tools on the boat cleaning stations were used more than 1,800 times. This averages out to about 200 aquatic invasive species prevention uses per day and an estimated 700 boats cleaned!

The county also supported the development and installation of the CD3 Outpost cleaning stations at Bush Lake in Bloomington, Parkers Lake in Plymouth, Lake Sarah in Independence, Weaver Lake in Maple Grove and the Spring Park Public Access on Lake Minnetonka. Compared to the original CD3 stations, these outposts are a simplified, lower-cost, off-the-grid option that continues to empower boaters to take the clean-drain-dry-dispose actions.



A CD3 outpost at Spring Park Public Access on Lake Minnetonka

Education

Educational efforts focus on engaging audiences and raising awareness about aquatic invasive species through interactive displays, hands-on materials and messaging close to where people need to be taking action.

- City of Edina finished a project that created hands-on zebra mussels using 3D printing technology. The samples from this project are used with the previously created educational tools, including the AIS bike and trailer with Minneapolis Parks and Recreation Board and the pop-up cart with the Nine Mile Watershed District. Information gained from this project may help to create an educational display at a county access in 2019.
- Partnering with 12 other counties and Wildlife Forever, the county sponsored Clean-Drain-Dry advertising with KARE 11. This reached 3.3 million viewers and was on MN Bound and KARE 11 News. 152 television spots aired.
- Through a Hennepin County AIS prevention grant, the Wayzata Community Sailing Center engaged youth interested in outdoor recreation in learning about ecosystems and offered a science-based camp called Looney Lake Lab for youth to learn about aquatic invasive species and other lake science. Youth examined aquatic invasive species under microscopes, surveyed for aquatic invasive species in Lake Minnetonka using snorkeling gear, and then developed messages that are being displayed on Hennepin County's interactive message board. The youth especially loved sailing over to see their messages displayed on the message board.
- In partnership with the county's Emergency Management and Sheriff's Office, programmable message boards are now installed on two of the busiest channels on Lake Minnetonka. The boards will display aquatic invasive species prevention messages along with safety and emergency information.



A hands-on zebra mussels prop

Management

For some aquatic invasive species, management options exist to help control or reduce populations.

- Bass were introduced to the wetland ecosystem at Wood Lake Nature Center with the goal of reducing the impacts the goldfish population appear to have on vegetation. The nature center has observed in recent years that as the goldfish population has increased and waterfowl numbers have decreased. This project also created an educational display in partnership with the county to inform visitors about the impact of releasing unwanted pets like goldfish on aquatic ecosystems.

Research and pathway analysis

Research projects provide insights on potential management options for aquatic invasive species and the effectiveness of various programs aimed at preventing the spread of aquatic invasive species. The county funded:

- Staff from a private consulting group surveyed 13 lakes and ponds without boat access for the presence of aquatic invasive species. At least one aquatic invasive species was found in each of these lakes, including curly-leaf pondweed, Chinese and banded mystery snails, and invasive carp and goldfish. The results from these surveys show AIS can spread into lakes without public boat accesses. These results highlight that efforts for prevention need to extend to multiple pathways. The full report is available at hennepin.us/aisprevention.
- The University of Minnesota to study zebra mussel management on Lake Minnetonka. A mid-project updated showed some success in managing larvae in just a few days with low-dose treatments. The next steps in this research will continue into 2019.

Contact information

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