



# North Oaks Conservation Award

## Invasive Species Control Best Practices

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Invasive species are plants and animals that are not native to Minnesota and cause economic harm or harm to human health. Minnesota's natural resources are threatened by a number of invasive species such as zebra mussels, Eurasian water milfoil, common buckthorn, and emerald ash borer. Invasive species can occur on land or in the water. The Minnesota Department of Natural Resources (DNR) works to help prevent the spread and promote the management of invasive species. Please note that many of the water bodies in North Oaks are part of the St. Paul Regional Water Services and have restrictions in addition to those normally required by the DNR.

You may qualify for a North Oaks Conservation Award if you help rid North Oaks of invasive species.

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## Best Practices for Invasive Species - Ideas

### Aquatic Plant Invasive Species

Invasive aquatic plants are non-native plants that can potentially create recreational nuisances to lakes and reduce native plant diversity. In some instances, when invasive plants become too abundant, they can cause economic or environmental harm. The DNR's goal of invasive plant management is to minimize harmful effects caused by invasive plants while also protecting the natural resources and their use in the State. Once an invasive species is established in a water body eradication is an unrealistic goal. Plant management is complex, and reductions in invasive plants often require long-term and resource-intensive efforts. Discussing your management proposal(s) with a local Invasive Species Specialist is recommended as a first step.

Management of invasive aquatic plants that involves either mechanical removal of plants or application of herbicides to public waters requires a permit from the DNR. Permits may be issued to property owners, lake organizations, and local governments.

Commonly managed aquatic plants are:

- Eurasian watermilfoil (*Myriophyllum spicatum*)
- Curly-leaf pondweed (*Potamogeton crispus*)
- Purple loosestrife (*Lythrum salicaria*)
- Flowering rush (*Butomus umbellatus*)

A DNR field inspection is required for all proposed treatment areas prior to issuing a permit. A field inspection may be waived if the proposed treatment areas are delineated by a third party consultant or at the discretion of your local Invasive Species Specialist. Grant money may be available to support aquatic invasive plant management.



For more information, contact the DNR Aquatic Invasive Species Management Coordinator at 651-259-5149.

### Aquatic Animal Invasive Species - Zebra Mussel (*Dreissena polymorpha*)

**What are zebra mussels?** Zebra mussels are small freshwater mussels that are not native to Minnesota. Adults range from 1/4 to 1 1/2 inches long and have yellow and brown striped shells.

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Unlike native mussels, they can attach themselves to hard surfaces in the water.

### **Where did zebra mussels come from?**

Zebra mussels are native to Eastern Europe and Western Russia. They have spread throughout much of Europe and Asia over the past 200 years. They were likely brought to North America in the ballast water of ships and were discovered in Lake Erie in 1988.

What problems can they cause?

Zebra mussels can:

- clog irrigation intakes and other pipes
- attach to boat motors and boat hulls, reducing performance and efficiency
- attach to rocks, swim rafts and ladders where swimmers can cut their feet on the mussel shells
- attach to and smother native mussels
- eat tiny food particles that they filter out of the water, which can reduce available food for larval fish and other animals, and cause more aquatic vegetation to grow as a result of increased water clarity

### **Zebra mussels in Minnesota**

Zebra mussels were discovered in the Duluth harbor in 1989. As of 2014, the DNR had documented zebra mussels in fewer than 100 water bodies in Minnesota. The DNR has listed a total of 213 water bodies as “infested” with zebra mussels, a regulatory classification which includes some water bodies that are connected to water bodies where zebra mussels have been found.

### **How do they spread?**

Zebra mussels can attach to boats or aquatic vegetation and be carried to a different lake or upstream in a river. The microscopic larvae (called “veligers”) may be carried in bait buckets, live wells, or other water.

### **What should you do to prevent their spread?**

Before you leave any water access, clean weeds and debris from your boat, remove drain plugs and keep them out while traveling, and dispose of unused bait in the trash. For additional recommendations see [mndnr.gov/AIS](http://mndnr.gov/AIS).

### **Regulatory classification**

Zebra mussels and quagga mussels (a related species) are both classified as prohibited invasive species in Minnesota. It is illegal to import, possess, buy, sell, transport, or introduce them into state waters.

## **Land Invasive Species - Prevent the spread of terrestrial invasive species**

The best way to protect our natural areas from terrestrial invasive species is to prevent the spread of new invasive species to those areas. You can help prevent the spread. For example, invasive plant seeds can be transported in mud and hay. The eggs and larvae of invasive insects like emerald ash borer can be spread by moving firewood. Help keep your property healthy!

Firewood:

- Acquire & use local or certified firewood

Before you return home from your cabin or from travel:

- Make sure your belongings are free of mud and plant debris
- Do not bring vegetation back home to transplant

For invasive species already growing in your yard:

- Buckthorn, garlic mustard, and other invasive terrestrial species should be removed either by extraction or the cut and treat with a herbicide method.