



# Lake Steward Actions

## 1 Avoid fertilizer

Fertilizers are major sources of chemical pollution in Minnesota's lakes and rivers. When you fertilize near a shoreline, rain quickly washes the excess phosphorus and other nutrients into the lake, disrupting ecosystems. Increased phosphorus causes algae blooms, reduces fish populations, and limits recreational use. To prevent these impacts, avoid using fertilizers and remember that if a product promotes plant growth on land, it will do the same thing in the water.

## 2 Reduce impervious surfaces

Hard surfaces like concrete, roofs, and patios, prevent rainwater from soaking into the earth, forcing it instead to wash into the lake, carrying with it loose topsoil, grass clippings, leaves, and any excess fertilizer. All of these nutrient rich materials promote algae growth and degrade water quality. The best thing you can do is to allow rainwater to soak into the ground where it falls. Native plants help this happen by opening up little tunnels in the soil with their deep roots!

## 3 Allow fallen trees and branches to remain in the water


When trees and branches fall into the lake, they serve as crucial habitat for a variety of fish, insects, and animals. An added bonus is that these materials can also provide some barrier and protection against wave action! See if you notice any turtles sunning themselves on a nice day!

## 4 Avoid riprap, and allow emerging vegetation

Riprap is a manmade collection of stones assembled on the shoreline. Often recommended by contractors to stabilize against erosion, riprap does not filter runoff, or provide habitat. Remember, the best riprap will ever look is the day it's installed, whereas a vegetated natural shoreline will become stronger and more beautiful over time. If you do have previously places riprap, allow plants to grow among the rocks. Note also that loons need natural shorelines to nest. If the entire lake was riprap, there would be no loons.

## 5 Allow a 25 foot buffer zone of native plants

A buffer zone of native plants between the water and the rest of the property is one of the best protective measures you can take! The deep roots of native plants help infiltrate water into the ground, mitigating nutrient heavy runoff, and they also stabilize the shoreline by holding everything together. Bonus- Canada geese hate buffer zones because they can't see whether predators are hiding in there! If you want to get rid of geese, get rid of a big lawn.



# 6

## Maintain septic systems

It is recommended that septic system maintenance occurs every 1-3 years. If a septic system malfunctions and leaks into the land and groundwater supply, lakes and rivers can become severely contaminated by the waste. Be sure to manage a septic system every 1-3 years, and contact your local resources immediately in the case of a septic emergency.

# 7

## Pick up pet waste & keep fire pits away from shoreline

pet waste and ash from fire pits are both very high in phosphorus. To keep these materials from washing into the lake, keep a fire pit 50 feet from shore, and remove ashes from the fire pit periodically. (ashes make a great garden soil amendment! Dispose of pet waste in the trash- even if you compost it further from shore, large quantities can contaminate the groundwater and lake.

# 8

## Store docks and other equipment away from shoreline

When removing your dock, swim rafts, boat lifts and other equipment for winter, try to protect the shoreline vegetation. Storing docks or boating equipment near the shoreline can cause erosion, and damage native the plants that benefit your shoreline. Store equipment at least 25 feet from the waterline, and minimize the amount of space they take up by stacking the equipment or elevating on blocks.

# 9

## Allow aquatic plants to remain

Aquatic and floating plants provide a critical habitat for fish and wildlife, stabilize sediment on the lakebed, and oxygenate the water. Emergent vegetation can also help to absorb wave action before it hits the shoreline. Allow aquatic plants to grow where they are not prohibiting your recreational activities, and know the difference between aquatic invasive species and native plants.

# 10

## Join and support your lake association

Lake association members are the “boots on the ground” when it comes to protecting our lakes. Neighbor-to-neighbor relationships are the key to shifting social norms around how we manage lakefront property. Lake Stewards show pride in their natural shorelines and neighbors catch on! The lake association brings together citizens with a shared interest in protecting the lake and this civic group has amazing capacity to create change.



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