

Do You Have A Permit?

Commercial Weed Harvesting

Operations must be permitted with the North Dakota Game and Fish Department.

Pesticide Application

Any person or company must submit a Notice For Pesticide Application To Waters Of The State to the North Dakota Department of Environmental Quality. This must be done 20 days before using any pesticide to control aquatic vegetation.



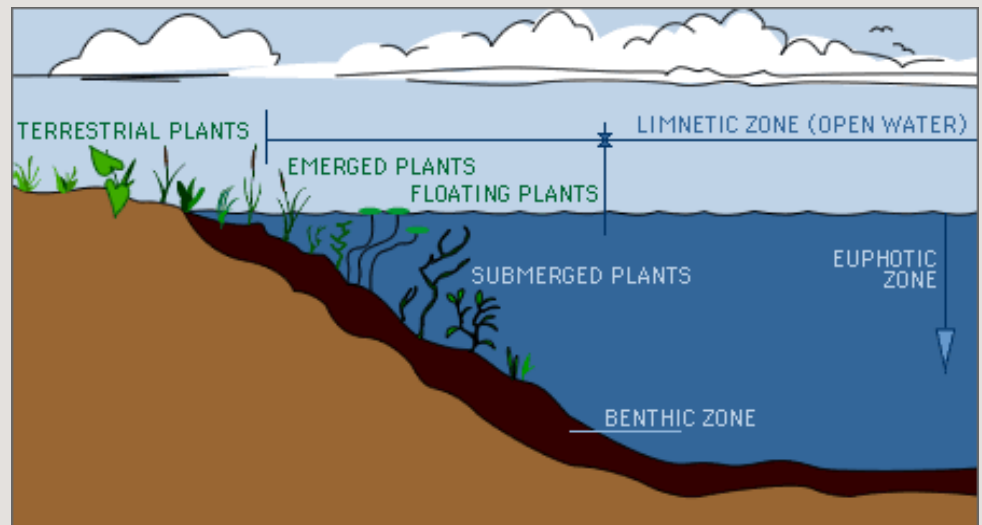
Harmful Algal Blooms (HABs)

Lakes are well served by plants growing along their margins, known as the littoral zone. Aquatic plants will:

- Stabilize sediments and shorelines
- Increase water clarity
- Provide food and shelter for fish and waterfowl
- Provide oxygen for aquatic life
- Take up excess nutrients

After development, shorelines may need to be restored with appropriate native vegetation to keep the water clear. Restoration projects increase the diversity of native plants, stabilize sediments by using plants with both deep and shallow roots, and slow water flow and runoff into a lake.

When too much vegetation is present or if non-native species predominate, management efforts are needed. Some lakes may have shorelines clogged with vegetation, and residents feel intervention is necessary to allow lake access for recreational activities.



The littoral zone contains plants (emergent, submerged, floating-leafed) and algae. Courtesy Minnesota Shoreline Management Resource Guide, University of Minnesota.

Does My Lake Have a Problem?

The presence of aquatic plants does not necessarily indicate a problem needing corrective measures.

A problem arises for homeowners when plants interfere with recreational activities such as swimming, boating, and fishing. Exotic plants have the additional effect of displacing native plant species, interfering with the food chain, and reducing fish populations. Proper identification of aquatic plants is the first step in understanding how to manage problem plants in a lake.



Removal of aquatic vegetation can result in increased Harmful Algal Blooms (HABs).

Your Role in Limiting Aquatic Plants

Limiting the amount of nutrients entering a lake is the primary way to reduce long-term plant growth. Lake-friendly practices include:

- If you live on or near a lakeshore, use only the recommended amount of fertilizer and apply it only in the fall.
- Use a no-phosphorus fertilizer.
- Never fertilize right up to the lake edge.
- Leave a buffer zone of unmowed, unfertilized lawn between the yard and the lake, or establish a filter strip of native vegetation.
- Collect and compost lawn clippings and fallen leaves. Do not rake them into the lake or burn them near the shore.
- Finally, be sure that your septic system is operating correctly and not draining into the lake.

Feel free to use this information, but please credit the North Dakota Department of Environmental Quality.

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Controlling Aquatic Vegetation

The two main ways to control problem aquatic vegetation are physical harvesting and herbicide applications.

Physical Harvesting: The most obvious way to get rid of plants is to physically remove them. The removed plants may not be disposed of in the lake. They must be taken to a proper disposal site (e.g., composting facility). Aquatic plants reproduce through fragmentation, so any cut plants left in the water usually regrow.

Removal methods include pulling by hand; cutting with knives, cutters, or scythes; or dragging with rakes, drags, or nets. These methods offer an inexpensive solution for small areas. Different types of rakes and drags are available for purchase at farm stores or can be built from a wide array of household items. For large jobs, there are machines available that function as aquatic combines and harvest large quantities of vegetation.

Herbicide Application: The North Dakota Department of Environmental Quality requires all herbicide and algacide users to submit a Notice for Pesticide Application to Waters of the State.

Controlling Aquatic Vegetation

Controlling the vegetation of a lake can create unexpected management issues.

For example:

- Removing aquatic vegetation from muddy shorelines will release soil into the lake, making the water turbid and reducing water clarity.
- Less aquatic plants may mean more wind turbulence which can stir the water causing nutrients in the lake-bottom sediments to be resuspended. Greater availability of nutrients can cause increased algal blooms, turning the water green - the opposite of the desired outcome.
- Management efforts that reduce algae often result in increased growth of the larger aquatic plants.

Changing one part of a lake ecosystem has consequences for the entire lake.

Before removing aquatic vegetation, develop a well-defined plan with a specific management goal. The expectation of a perfectly clear, vegetation- and algae-free lake is unrealistic, and can lead to disappointing results.

**Remember,
“We can’t all live upstream.”**