Understand Aquatic Plant Management

In moderation, aquatic plants are good for the lake. They provide habitat and food for fish and other organisms, stabilize bottom sediment, improve water clarity and quality, and can improve the overall aesthetics of the lake. Much of the fishing and recreation industry rely on a ***balanced***, aquatic plant community. Aquatic plants become a problem when they become overabundant and interfere with the use of a lake. A number of factors combined may result in excessive aquatic weed growth

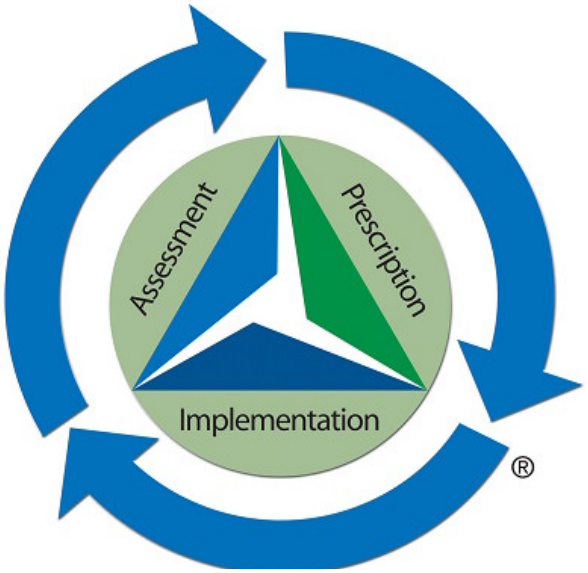

Figure 1 Best management Practice cycle

Plant overgrowth and algae blooms result from a variety of sources and Aquatic Plant Management is only part of the solution. Generally, there are two categories of plants in a lake, native and exotic, otherwise referred to as ***Aquatic Invasive Species (AIS)***. Both, if overgrown can cause problems, but AIS cause the most problems. AIS have been brought over, both accidentally and intentionally, from other continents. Because they have very few natural enemies, they grow out of control, eventually stomping out the native plants, needed to maintain balance and health of the lake. The primary AIS in Minnesota are Curly leaf pondweed and Eurasian Water Milfoil. AIS plant growth can begin negatively affecting the water quality of a lake, fish, waterfowl, and other aquatic species, by blocking sunlight, increasing nutrients, and inhibiting the food chain of a lake. Understanding these plants and their growth cycles are essential to implement management that is environmentally friendly. ***In order to successfully manage these plants, you must look at the "big picture" or the whole lake.*** Treating small areas of a large problem is merely a band aid and provides temporary relief. ***GET INVOLVED WITH YOUR LAKE GROUP!***

In order to successfully manage AIS, you must know where they are located. By performing assessments you can identify the locations to the plants, their growth zones and the other plant types found. Once you know where they are located you can then develop a plan for management. This is called a Lake Vegetation Management Plan. A lake vegetation management plan identifies specific goals, objectives and measurements to successfully correct the problem.

Common problems associated with AIS

- ✖ Plants Interfere with recreational use of the lake
- ✖ Invasive, nonnative, submersed plants are causing ecological problems

a. Native submersed aquatic plants are being displaced. Organisms that depend on native species are then altered as a result of the reduction.

b. Declines in water quality (increased concentrations of phosphorus and associated algal blooms) are associated with the die-off of curly-leaf pondweed

Responsible Management Should

- ✖ Restore and Improve plant animal and human habitats.
- ✖ Strive to always make a positive environmental change.
- ✖ Apply management methods responsibly, using the appropriate amount to achieve desired results.
- ✖ Protect threatened or endangered species.

What can homeowners do to prevent the spread?

The most important step in protecting your shoreline is "***Don't invite AIS into your area***". AIS take the opportunity to grow rapidly in areas that have been disturbed. By maintaining a healthy coverage of native plants throughout your frontage you do deny AIS the opportunity to establish. On any given day you can observe property owners operating weed rollers, raking up weeds, and spreading chemicals to control nuisance aquatic vegetation. It is ok to perform these activities to make the lake usable but in order to protect your frontage from invasion of AIS here are some guidelines. When using mechanical devices such as weed rollers and rakes, maintain only as much area as needed. Excessive removal and sediment disturbance is an invitation for AIS to establish. When using herbicides, try to identify the plant and choose a product or rate of application that is selective to the nuisance species. It is recommended that you contact the product seller and ask lots of questions. Many trained personnel are available to identify the problem plants and provide you with the proper products. Remember, the best method of reducing the invasion AIS is to use well educated methods of management and leave as much natural occurring habitat as possible in your lakefront property!

By: Patrick Selter, VP, PLM Lake & Land Management Corp.