

An underwater photograph of water lily plants. The image shows several large, round, bright green leaves floating on the water's surface. Below the surface, a dense network of thin, brown stems and roots is visible, extending downwards. The water is clear, and the lighting creates a soft, dappled effect on the leaves and stems.

Water Plants

*A Case for Preserving
Wisconsin's Aquatic Plants*

A Tapestry of Life

The core of life in all fresh water lakes is cradled in the shallow waters near shore. Much of a lake ecosystem depends on what happens in this shallow water. When parts of the lake, such as plants or wood, are removed from this shallow area, it is like removing a house in the neighborhood. The residents that once lived there can no longer return, and when enough homes are removed, and enough residents lost, the interactions that make the neighborhood a viable community cease, and the community fails. A community of aquatic plants is part of what makes a healthy lake ecosystem. We are beginning to see aquatic plants in a new light, for their beauty and ability to protect and nourish a lake. These plants are the binding thread in a watery tapestry of life.

Attitudes Toward Plants

Two forces have converged that reflect our changing attitudes toward aquatic plants in Wisconsin. One is a growing realization of the importance of a strong, diverse community of aquatic plants in a healthy lake ecosystem. The other is a rising concern with the spread of aquatic invasive plants, such as Eurasian water-milfoil. These two forces have been behind the changes in our aquatic plant management laws and the evolution of stronger support for the control of invasive aquatic plants.

To some, these two issues may seem in opposition. However, on a closer look, they actually strengthen the case for developing an aquatic plant management (APM) plan as part of your total lake management picture. In the southern part of Wisconsin, plant management often consists of maintenance and restoration, while in northern Wisconsin, planning revolves around prevention and is closely linked with the local economy. Often lake property owners are told that a “weedy” lake can lower their property value. However, studies suggest that lakes with better water quality have higher property values, and plants help maintain high water quality. Aquatic plant planning may sound like a lot of work, but a solid plan can have long-term benefits for your lake and your community. Without a plan, you will still have the work, but not the benefits of measurable outcomes to guide you toward meeting your goals.

The Role of Aquatic Plants

Aquatic plants create a thriving habitat for animals.



Plant roots create networks that stabilize sediments at the water's edge.



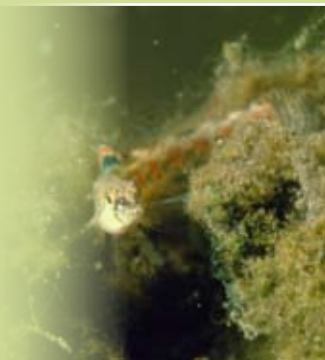
Plants are essential to the spawning success of many fish species.



Plants provide refuge for near shore animals.



Plants provide habitat for many non-game fish species that are often "invisible" to most people.



Plants photosynthesize, creating life-giving oxygen to the animals that live in the littoral zone.



Submersed plants absorb phosphorus and nitrogen over their leaf surface and through their roots, making nutrients less available for nuisance algae.



Native aquatic plants can limit aquatic invasive plant growth.



Plants, fruits and tubers provide food for mammals, waterfowl, insects and fish.



Plant beds provide cover and nesting for marsh birds, songbirds and waterfowl.



A Plan for Plants

A Balancing Act

To promote the long-term sustainability of our lakes, the state of Wisconsin endorses the development of aquatic plant management (APM) plans, and supports creating them through various grant programs. You may wonder why you should be required to get a permit and have a plan before removing certain aquatic plants from public waters. Keeping the aquatic plant community healthy, while removing the invasive plants, is a difficult and challenging task. It is for that reason a well thought out plan is critical.

Before a permit may be issued, the state requires the development of a long-term, integrated APM plan to identify important plant communities and guide the management of nuisance aquatic plants in lakes, ponds or rivers.

In deciding to manage aquatic plants that grow in our waters, we are manipulating an ecosystem that belongs to the public. Our actions can affect not only the lake, but all people who use it.



An Investment for the Future

Many lakes develop annual APM budgets that range from thousands to tens of thousands of dollars to improve recreational conditions on lakes. With such a large investment, it makes sense to have a well thought out plan to assure the money is spent wisely, and the lake and its users benefit. It is wise to create a plan that provides a framework for management into the future, with flexibility to adjust to annual changes in the plant community.

We are experiencing a rapid change in scientific efforts to understand and manage aquatic invasive plants wisely and effectively. Permit costs may seem high at the local level, but they provide only a small portion of the total cost of aquatic plant

management. The permit dollars assist in supporting Wisconsin's aquatic plant program and the specialists who work with communities to manage aquatic plants. These specialists must stay abreast of the latest research efforts to manage invasive plants, and are involved in bringing this information to the local level. Through permit fees, you're investing in your lake's future, and like any investment, it requires initial finances to promote a good return. Lake communities' support, and investment of time, talents and dollars, is fundamental to ensure that Wisconsin's fresh water lakes remain rich, diverse centers of aquatic life for generations to come.



Laws

Wisconsin recognizes that aquatic plants are an important resource, fundamental to the ecological health of our waterways. In recent years, the state passed laws that represent some of the most significant changes to the Wisconsin's aquatic plant management in decades. Section 23.24 of the Wisconsin State Statutes, relating to aquatic plants, required the Department of Natural Resources (DNR) to establish a program to "Protect and develop diverse and stable communities of aquatic plants, regulate how aquatic plants are managed, and provide education and conduct research on invasive aquatic plants." The law also allows the department to require an APM plan.

Plants on the Move

In addition to having an APM plan, all persons using our state waters need to comply with the current state rules which prohibit the transporting of aquatic invasive species on boat trailers and other equipment. Please be aware that laws are continuously being updated. Several counties have already adopted stronger ordinances which prohibit the transport of any aquatic plants.

Do No Harm

It is important to remember that plant communities can vary from lake to lake and from year to year. There are many techniques used for the management of aquatic plants that take these variations into consideration. Most native water plants do not need to be “managed,” they do just fine with little or no human assistance. The same could be said for invasive plants that are not preventing us from using the water. One of the key principles of APM in Wisconsin is to “do no harm” to the lake ecosystem.

When Management is Used

Often, management means protecting native plants by selectively hand pulling invasive plants that are found growing among the natives. Sometimes more intensive management may be needed, such as using harvesting equipment, herbicides or biological control agents on invasive plants. These methods require permits and extensive planning.

Anyone doing APM should be aware that a permit may be needed to remove, add or control aquatic plants. Groups that may get involved in APM include lake associations, lake districts, contractors offering herbicide or harvesting services, lake management consultants, persons planning plant restoration projects, those proposing water drawdowns for plant control, or others managing, controlling or planting aquatic plants.

While limited and small scale manual removal on individual properties is generally permitted, it is widely accepted that a lake will be much better off if all plants (native and invasive) are considered on a whole lake scale. Whole lake planning is routinely accomplished by lake organizations or units of government charged with the stewardship of individual lakes.

One plant with special protection in Wisconsin is wild rice. Wild rice in public waters may not be damaged or removed, unless by special permit and review under state legal obligations to uphold treaty rights.



Wisconsin's Philosophy

The waters of Wisconsin belong to all of us. Their management becomes a balancing act between the rights and demands of the public that do not live on the water and those who own property on the water's edge. This body of law, called the Public Trust Doctrine, dates back hundreds of years in North America and thousands of years in Europe. Its basic philosophy, with respect to the ownership of waters, was adopted by the American colonies. The US Supreme Court has found that the people of each state hold the right to all their navigable waters for their common use, such as fishing, hunting, boating and the enjoyment of natural scenic beauty. In deciding to manage aquatic plants, we should keep in mind this great trust and tradition...our actions affect all people who use the waters.

The impacts of humans on our state's waters over the past five decades have caused Wisconsin to evolve a certain philosophy toward aquatic plant management. This philosophy stems from the recognition that aquatic plants have value in the ecosystem, as well as from the awareness that, sometimes, excessive growth of aquatic plants can lessen our recreational opportunities and our aesthetic enjoyment of lakes.

Balancing these sometimes competing objectives is a complicated task. The state is entrusted with the responsibility of managing the fish and wildlife resources, and their sustainable use, to benefit all Wisconsin citizens. Aquatic plants are also recognized as a natural resource to protect, manage, and use wisely. To assure we do not harm the lake ecology, it is important that plant management is undertaken as part of a long-range and holistic plan.





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