

Nuisance Aquatic Plant Management in Michigan: Some Practical Guidelines for Lake Landowners.

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Regarding inland lake management, here are the basic guidelines and advice that we provide to inland lake landowners, lake associations, and lake improvement boards. Aquatic plant management in Michigan's inland lakes is essentially privatized, with for-profit "lake management" companies typically prescribing and conducting treatments. In other states, the DNR (or equivalent agency) does this, but in Michigan we are not mandated or funded to do so. In Michigan, oversight of aquatic plant management is provided by EGLE (Michigan Department of Environment, Great Lakes, and Energy). Unfortunately, they are tremendously understaffed, and politically handcuffed. It is very difficult for them to deny aquatic treatment permits, and they rarely do. Our role in the permitting process is providing fisheries-based comments, but they are non-binding. EGLE often issues permits over our objections. Since they are so understaffed, it is also very difficult for EGLE to do much in the way of follow up or other verification. Therefore, it falls primarily upon landowners, lake associations, and lake improvement boards to hire lake management companies to manage aquatic plants in inland lakes.

As you might imagine, this leads to a wide range of treatment strategies and outcomes. Some lake associations are not particularly interested in lake ecology or fishing and take a "kill em all" strategy with the aquatic plants in their lake, whether native or non-native. Others are not so aggressive and take more interest in ecology and fish populations. The lake management companies also differ widely in the approaches that they prescribe. Being that they are private companies out to make profits, some will recommend strategies that ensure they'll need to come back year after year. Another common scenario we've seen on multiple lakes is this: the lake association/lake management company wipes out most or all of the plants in a lake with chemical treatments. The subsequent lack of plants frees up available nutrients for algae blooms. No one wants pea soup green water or filamentous algae clinging to everything, so then the lake association gets to pay the company even more for them to come back and chemically treat the algae. It can be very expensive for landowners and obviously is not good for the long-term health of any inland lake.

Here's what we recommend to inland lake landowners. Inland lakes need healthy aquatic plant populations to have healthy ecosystems. Abundant aquatic plants provide habitat for fish and many species of wildlife, and they help keep algae issues at bay by sequestering nutrients present in the lake. Therefore, we recommend only treating aquatic plants with chemicals when it is absolutely necessary to do so. This means when the plants (usually exotic species like Eurasian milfoil) become so widespread that they are essentially making large areas of the lake unusable for swimming, fishing, boating, etc. At that point, we believe spot-treating these areas with chemicals is a good strategy to make the lake available for recreation again. The problem is that some of the treatment companies use scare tactics and advise lake associations to treat every stalk of Eurasian milfoil they can find. This is not necessary at all. In lower abundance, Eurasian milfoil can actually provide habitat for a number of fish species. It is impossible to eradicate it from an inland lake once it's there, so it should only be treated when it is

actually a problem. We advise treating for current conditions, not for what might happen in the future. If the aquatic plants are creating a nuisance, then by all means treat them so the lake can be enjoyed. If not, leave them alone and save your \$\$ for if and when they actually do become a problem. We also advise leaving native plants alone entirely, again unless they get to the point where they are interfering with use of the lake.

One other thing we advise is for lake associations to ask the lake management companies they've hired to provide true lake management plans that examine all of the issues facing the lake, not just how many acres of milfoil are there and how much chemicals they're going to use. Issues like nutrient inputs, shoreline management, overall plant community composition, historical review of issues for that lake, etc. should be included in these management plans. We also advise lake associations to take a more active role in the management of their lake. After all, it is they that are paying the lake management companies, so they should educate themselves about lake management and not be afraid to pose tough questions to the treatment company they've hired. Also, lake associations should be doing "comparison shopping" with different companies to find the one with the best and least expensive plan for their lake. Finally, I do not wish to disparage lake management companies. They play a critical role in the management of Michigan's inland lakes and some of them are very conscientious and do a great job.