

The Truth About Lake Management



Many helpful resources exist out there for do-it-yourselfers (DIY-ers) to maintain their waterbodies, but the truth is, managing lakes and ponds is hard. They are complex ecosystems with ever-changing needs. And while well-intentioned, most DIY-ers lack the knowledge, licenses, and equipment to properly diagnose and address water quality issues that arise.

Many people take the DIY approach in an attempt to save money; however, it can backfire, leading to bigger, costlier issues. Ultimately, the best way to maintain a healthy, beautiful ecosystem is by leaving it in the hands of an experienced provider that uses science to guide effective management programs.

One of the biggest headaches of managing a lake is [nuisance aquatic](#)

[weed and algae growth](#), and some herbicides and algaecides are available for public purchase. Though herbicides and algaecides are highly effective at eliminating weeds and algae, they are powerful products that require strict adherence to label guidelines, access to personal protective equipment, and a familiarity with local laws and regulations.

Licensed professionals not only have comprehensive training on the use of these products, but they also have access to advanced laboratories to analyze water quality and identify root causes of growth. As part of an ongoing [water quality testing program](#), scientists track nutrient levels, dissolved oxygen (DO), pH, ammonia, and several other parameters.

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We believe clean, beautiful lakes promote good health, happiness and meaningful experiences.

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LAKE MANAGEMENT

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Restoring Balance.
Enhancing Beauty.

The Truth About Lake Management *Continued from front cover*

Though DIY-ers can collect water samples and send them to independent labs, there is much more to sampling than filling a test tube. Samples can be affected by many factors, including time of day, weather, and the type of container used. And once the results are in, most DIY-ers will struggle to interpret the complex data or understand how to use it.

That's where a professional comes in. Experienced partners can help identify potential water quality imbalances and correctly implement management solutions to resolve them.

[Fountains and aerators](#), for example, are excellent tools to restore dissolved oxygen levels, but for maximum effectiveness, these systems require proper placement, size, horsepower, and maintenance. Professionals have advanced equipment like bathymetric

[mapping technologies](#) and up-to-date training to help stakeholders choose the right systems and get optimal return on their investments.

Water quality tests may also reveal that weeds and algae are being fueled by excess nutrients. Professionals have access to specialized [nutrient remediation products](#) that DIY-ers are not licensed to apply, as well as state-of-the-art boats and equipment for applications and continual monitoring.

Long-lasting shoreline stabilization is another key area requiring access to professional-grade materials such as [bioengineered shoreline repair technology](#). Aquatic experts have the knowledge and experience to identify unique signs of erosion and areas that pose the biggest liability. Once a shoreline is repaired and reinforced with [beneficial native plantings](#), professionals can monitor for invasive shoreline plants, which may closely resemble native species to the untrained eye.

Ultimately, there's nothing wrong with wanting to take charge of your waterbody, but without the support of science, it can be easy to misdirect time and funds towards the wrong solutions. When you partner with an aquatic expert, they can guide you every step of the way and help you save time and money through [ongoing proactive maintenance and monitoring](#). Take the guesswork out of lake management and achieve beautiful, clean water by partnering with SOLitude. ■





Budgeting for Shoreline Restoration and Management

Lakes and ponds are essential for stormwater collection, recreation, beauty, and wildlife refuge. But their benefits have an expiration date. Eventually, due to erosion and other aspects of the natural aging process, your lake can become an eyesore and a liability. Lake shoreline restoration projects are inevitable – and sometimes costly – so it’s imperative to get ahead of expenses by calculating an accurate timeline and budget.

We know you cherish your water resources; after all, they can be assets that enhance the value and desirability of your property. We want to help you preserve them for as long as possible through proper planning and maintenance efforts. This starts with understanding the effects of erosion and budget considerations that impact important decisions.

[Erosion](#) is natural due to wind, rain, and wildlife activity, but can be accelerated through cultural impacts like recreation, landscaping, and construction. It can also look different from one waterbody to the next, from receding or unstable banks to sediment deposits along the shoreline. Ignoring these signs can result in damaged assets and possible liability risks.

No matter your budget, every property deserves access to [shoreline erosion solutions](#). Even if the damage is minimal, such as one-inch drop-

offs, it’s possible to get ahead of it through cost-effective means or larger investments.

An economical solution for shoreline protection is a [vegetative buffer](#) containing [native plants](#) with deep root systems. When established around the perimeter, beneficial buffers help hold soil in place and slow the flow of stormwater to prevent deterioration. Buffers are also cost-effective to maintain, requiring only routine trimming and monitoring for the growth of undesirable plants.

Stakeholders with a greater capacity for budgeting can set aside funds for a [SOX System](#), which is considered to be one of the best tools for shoreline restoration. Using a knit mesh material and bioengineering techniques, experts completely rebuild eroded shorelines by filling the SOX system with organic material and sealing it to prevent future erosion damage. This process helps stabilize the bank and

“extend” waterfront property.

SOX Systems are an investment but can be counted on for many years of stability. Stakeholders do have some flexibility when it comes to budgeting. For example, communities or golf courses with multiple waterbodies can choose to tackle one at a time as funds become available. Or, single ponds on a tighter budget can be repaired in stages, targeting smaller areas that need it most so funds can be stretched over months or years.

Ultimately, one of the best ways to cut costs over time is through an [annual management program](#) that incorporates proactive maintenance and professional monitoring services to help slow or prevent erosion and enhance the beauty and value of your property. Experts can also work with you to develop an accurate timeline for future restoration projects, so you can have as much time as possible to prepare financially. ■





The SOLution creating a better world

2022 Accomplishments

In 2022, there were many unique opportunities to make a difference in our communities through volunteering and service. Through [The SOLution program](#), our colleagues stepped up to support a variety of initiatives that left a significant impact on the environment, those in need, and the well-being of seniors, veterans, and essential workers.



DONATIONS INCLUDING IN-KIND SERVICES AND GOODS

\$549,105 **\$12,800**

DONATED SINCE 2012

DONATED IN 2022



Colleagues volunteered a total of 288 hours across our 35+ nationwide offices and helped 12 different organizations

Little G**B**BBLERS

Gifted more than \$7,500 worth of grocery store gift cards to 300 families for Thanksgiving meals.



H**O**Liday Cheer

Donated \$2,700 worth of gifts to over 45 children and contributed 300 toys & gifts to five hospitals across the country.

24,338

HOURS VOLUNTEERED
SINCE 2012

2,331

HOURS VOLUNTEERED
IN 2022

Volunteer Highlights

- Park, beach, lake, community, and highway trash clean-ups
- First responders
- Food Bank meal programs
- Hand-made cards for children, seniors, and veterans
- Outdoor safety and education training
- Invasive vegetation removal

Volunteer Awards

Q1 Volunteer of the Quarter
Flo Paterno, FL

Q2 Co-Volunteer of the Quarter
Ean Sims & Eggy Suarez, FL

Q3 Volunteer of the Quarter
Will Stevenson, MA

Q4 Volunteer of the Quarter
Anthony Mauri, FL

Heart & SOL Award

Congratulations to Customer Service Representative, **Flo Paterno!**

This annual award is given to a colleague who goes above and beyond with personal volunteering, inspires others, and has a true commitment and passion to make the world a better place.

Why Are **Fountains & Aeration** Systems So Popular?



Floating fountains, surface aerators, and submersed aerators are some of the most popular lake and pond management tools available. These systems enhance aesthetics while making your water the property's focal point. Fountains and aerators help improve water quality conditions which is another reason why they are desired by lake owners and managers across the country.

Stunning [lighting and spray patterns](#) make fountains an eye-catching focal point for HOAs, private properties, golf courses, and public parks. Fountains can be customized to fit a client's desired look, from grandiose to graceful. Dynamic lights can be tailored to holidays or events.

What's more, fountains and aerators provide ongoing water quality benefits that are hard to achieve any other way. [Fountains](#) help increase circulation and the transfer of oxygen at the water's surface. Stakeholders that prioritize function over form can also choose [surface aerators](#), which make up for reduced aesthetics by maintaining a higher flow and injecting up to 3 lbs. of oxygen per horsepower per hour into the water.

Ponds less than 6 feet deep are great candidates for a floating fountain or surface aerator, and those more than 10 feet deep can benefit from [submersed aerators](#). Using an on-shore compressor, they release bubbles that provide circulation and oxygenation from bottom to top.

[Dissolved oxygen](#) is essential to sustain a robust ecosystem and desirable aquatic life. A well-oxygenated ecosystem may also be less likely to experience water quality imbalances. When waterbodies are healthy and balanced, it's easier to limit weeds and algae.

The circulatory benefits are also notable. Consistent circulation helps prevent thermoclines – the formation of "layers" based on water temperatures and dissolved oxygen concentrations. When thermoclines are disrupted by rainfall or abrupt seasonal changes, fish kills often occur. This is particularly devastating for stakeholders who have invested significant time and funds to cultivate a thriving fishery.

Each style of floating fountain or aerator works differently, so professionals often recommend pairing them for maximum results. Placing a submersed aerator under a fountain benefits the entire waterbody. An expert can help you determine if this approach aligns with your goals and, if so, identify the proper size and placement.

We know you value your waterbodies and want them to look their best. While it's never too late to integrate fountains and aeration into your management program, it's important to account for current industry delays. Unfortunately, over the past few years, systems have become increasingly limited. As with the automotive industry and many others, manufacturers that produce fountain and aerator parts have

been impacted by the global supply chain issues due to Covid and labor shortages. Thankfully, supply chain issues are beginning to improve.

As the nation's largest lake and pond management company, we maintain close partnerships with top manufacturers to ensure you get the fountain or aeration system you want and have it installed promptly. [Contact us](#) to get your hands on a system! ■



Floating Fountain



Surface Aerator



Submersed Aerator

Algae and Invasive Weeds: The Biggest Burden of Lake Managers and Owners

One of the biggest headaches lake and pond owners or managers face is nuisance growth of algae and aquatic weeds. [Aquatic weeds and algae](#) are an eyesore and a top complaint from stakeholders. People look forward to enjoying the water during the warmer months, but if nuisance growth is not prevented before spring, it may come to define your property all summer long. Poorly-maintained waterbodies can lead to disconnected communities, reduced property values, liability issues, and weak confidence in leadership.

Aquatic weeds and algae can be hard to eliminate as they are merely a symptom of more systemic water quality issues – in particular, [a surplus of nutrients](#) in the waterbody. Warm weather combined with excess nutrients can create imbalances that make lakes and ponds more susceptible to weeds and algae. These imbalances can be further exacerbated by depleted dissolved oxygen levels, poor circulation, and erosion.

Nutrients commonly enter lakes and ponds through stormwater runoff that picks up pollutants, lawn clippings, animal waste, and eroded shoreline sediment. Nutrients are released as these materials break down.

If these problems are allowed to continue for too long, property owners and managers will have to turn to more reactive solutions like [mechanical harvesting](#) or [EPA-registered herbicides and algaecides](#) to eliminate nuisance growth. Though they do not address the root cause, these are often the quickest and most cost-effective strategies to quickly remove nuisance growth, and introduce an annual management program from a “clean slate.”

Proactive management begins with [in-depth water quality testing](#) to identify water quality imbalances before they manifest. After establishing a baseline,

professionals continue monitoring to spot changes and take action early on.

Dissolved oxygen is essential to a healthy waterbody, so [fountains and aerators](#) are often the next step. Fountains circulate and oxygenate lakes and ponds from the surface, while submersed aerators pump oxygen-rich bubbles from the bottom. In tandem, they work to restore balance to the water column.

To target excess and unwanted nutrients directly, products such as [Phoslock, Alum, or EutroSORB](#) can be used to “deactivate” or remove them from the water column. This approach typically yields long-lasting results as long as steps are taken to prevent future runoff.

This is where [shoreline management](#) comes in. Native plants introduced around the water’s perimeter can help slow runoff and [filter out pollutants](#). They also help contain soil along the bank to prevent erosion. If a shoreline is too impaired, [bioengineering materials and techniques](#) can be used to rebuild it for years of erosion protection.

Weeds and algae are an enormous headache, but they don’t have to be. Successful management is possible through an integrated approach that supports waterbody health all year long. Don’t carry the burden of managing your water resources alone. Our experts have restored thousands of aquatic ecosystems, and are dedicated to helping you cultivate a waterbody you can take pride in. ■



Invasive Weeds



Filamentous Algae



Algal Bloom

BEFORE & AFTER SHOWCASE

SOX EROSION REPAIR INSTALL

Property type:
Golf Course Lake
footage: 120 Feet

Jose Lazoff
Regional Sales Manager, FL



BIO FILM MANAGEMENT

Property type:
Municipal Lake
Acreage: 3 Acres

Chris Carlan
Aquatic Specialist, MA



HYDRILLA & ALGAE MANAGEMENT

Property type:
Private Lake
Acreage: 7 Acres

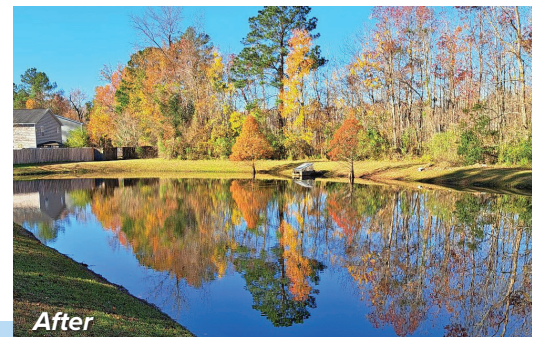
Joe Pellegrino
Aquatic Specialist, FL



DUCKWEED & ALGAE MANAGEMENT

Property type:
Community Pond
Acreage: 0.5 Acre

Rick Bennett
Aquatic Specialist, SC



– THANK YOU TO OUR VENDOR PARTNERS –



**SERVICES AND CONSULTATION
OFFERED NATIONWIDE**

- [Annual Lake & Pond Management](#)
- [Water Quality Restoration](#)
- [Fountain & Aeration Systems](#)
- [Algae & Aquatic Weed Control](#)
- [Fisheries Management](#)
- [Water Quality Testing](#)
- [Bathymetric Studies](#)
- [Biological Augmentation](#)
- [Mechanical Harvesting & Hydro-Raking](#)
- [Shoreline Management & Erosion Repair](#)

For helpful lake, pond, wetland and fisheries management tips visit:



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5 Ways Community Members Can Help Maintain A Beautiful Lake

As urban development increases, so does the importance of our waterbodies. But despite their essential role in our communities, poorly managed ponds are all too common – and they're more likely to experience shoreline erosion, weeds and toxic algae, muck build-up, and flooding.

Stormwater runoff is one of the biggest contributing factors. When rainwater flows into the lake, it brings with it excess nutrients as a result of garden fertilizers, pet waste, trash, grass clippings, and other organic pollutants that contribute to [water quality imbalances](#).

We understand that maintaining beautiful, clean water is important to your community, which is why we've compiled key practices to help support healthy lakes and stormwater ponds:

- 1 Prevent algae and weed growth by reducing fertilizer use
- 2 Properly dispose of trash, pet waste, and debris to prevent decomposition and muck
- 3 Cultivate beneficial native shoreline buffer plants to stabilize sediment and filter pollutants
- 4 Avoid mowing close to the lake shoreline to prevent destabilization
- 5 Partner with a professional for regular maintenance and water quality monitoring

