Delivering Lake Management Solutions that Impact the Communities Where You Live, Work and Play



By: Pete Filpansick Business Development Consultant Michigan



Restoring Balance. Enhancing Beauty.





- SOLitude Mission
- Lake Management Services

Strategy for Lower
Pricing
Straits Lake



The SOLitude Mission

Preserving and Protecting Ecological Balance

- Our goal is to help you attain and preserve balance in your aquatic resources, so you can enjoy your waterbodies year -round.
- SOLitude is dedicated to making water a more healthy and beautiful part of our world.



What We Do

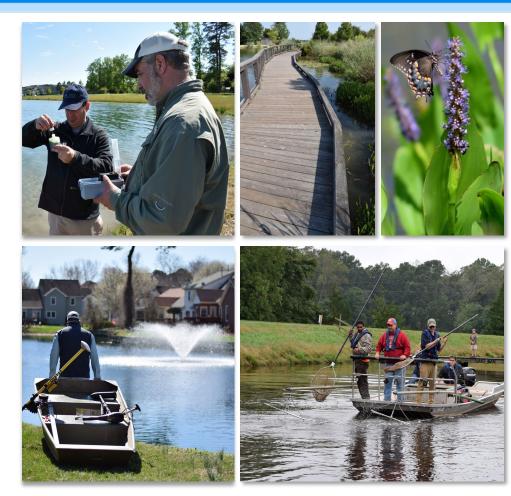


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How We Do It:

Our highly -trained team of scientists, biologists, ecologists and aquatic resource management professionals specializes in the development and execution of:

> Customized lake, stormwater pond, wetland, canal and fisheries management solutions.



Situation Assessment



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Did You Know...



- Approximately 40% of the lakes in America are too polluted for fish, aquatic life or swimming.
- Invasive plant species are infesting our ponds, lakes, and waterways at an alarming rate.
- Cyanobacteria (blue -green algae) can produce toxins that are among the most powerful natural poisons known, threatening humans, wildlife, pets and our drinking water supply.
- Property values are negatively affected by waterbodies that are plagued with poor water quality, algae and aquatic weeds.
- Dredging of a waterbody is often the largest single expenditure a community or development will ever face.



Assessing the Situation



- It's important to establish a baseline understanding of the current conditions.
- Management strategies are dependent on:
 - Use of the waterbody
 - Your goals



"We have 5 water features on the property and before SOLitude Lake Management came, our ponds were full of algae and aquatic weeds, looking very unhealthy. In the past 7 years, SOLitude has cleaned out our ponds and got them back into shape making them look like amazing water features as they should be."

Aaron Tenley, Community Supervisor, Silver Spring, MD

Superior Solutions



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What We Do

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Our Focus on Proactive Management

Simply treating nuisance algae or aquatic vegetation is only treating a symptom of poor water quality... you are not dealing with the cause.

We take a proactive approach to lake and pond management and implement sustainable solutions to help clients maintain a natural, healthy and beautiful aquatic ecosystem.



Lake Mapping and Bathymetry

- Types of Lake Mapping:
 - Surface Mapping, Bathymetric Studies, Sediment Analysis
- Lake mapping data can be utilized to:
 - Develop programs to manage aquatic vegetation or algae
 - Improve fisheries
 - Plan and budget for future dredging or sediment removal



Water Quality Testing and Restoration



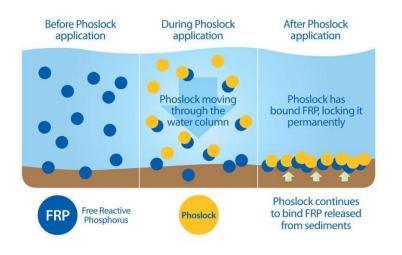
- Proactive testing and monitoring is vital when it comes to helping prevent water quality problems.
- Helps to document annual trends and acts as a reference for emerging water quality impairments.
- On -site water quality consultations may include information on the physical state of your water: water color and odor, algae presence, pH, temperature, dissolved oxygen, conductivity, and alkalinity.
- In the lab, a deeper examination, also measuring ammonia, nitrates, nitrites, phosphates, hardness, iron, salinity and conductivity can be performed.



Nutrient Remediation



- Phoslock and Aluminum sulfate (Alum) can be applied to bind excess phosphorus in lakes and ponds.
- Applications can help lower nutrient levels in order to make the lake or pond system less hospitable to abundant algae growth.





Water Quality Restoration with Phoslock

Immediate Impact :

- Rapid P Binding
- As Phoslock moves through the water column, it absorbs P in different depths in the water column

Short -term Impact:

- Reduction in P
- As P becomes the limiting nutrient, the N:P ratio increases
- Resulting in more balanced water quality conditions

Longer -Term Impact:

- Phoslock remains active at the bottom of a waterbody
- Adsorbs P released from sediments
- Adsorbs P from new inflow water as it settles to bottom



Aquatic Weed and Algae Control

- Invasive algae and aquatic weeds are not only unsightly, but they can sometimes be a danger to aquatic life and humans depending on the species.
- Properly identifying the target algae and aquatic weeds is an important factor in achieving the desired results.



Beneficial Aquatic Plants

- Aquatic plants may be submersed, floating, or emergent, and native species are essential to a healthy aquatic habitat.
- Beneficial plant species help absorb excess nutrients already in the pond, reducing availability for unwanted plants and algae.
- Provide habitat, refuge, and food for a wide variety of organisms including fish, invertebrates, and waterfowl.



Mechanical Harvesting



- Technique used for achieving "area selective" control of nuisance aquatic vegetation.
- An effective alternative on sites with annual plant varieties or where herbicides are not appropriate.
- One to two harvests are recommended to provide a season -long control of targeted species.



Hydro -Raking: Muck Removal

- Technique for area selective removal of nuisance, rooted vegetation as well as accumulations of unconsolidated bottom muck and debris.
- Maintenance that will help to prolong or prevent future dredging.
- Removal of plants and debris will reduce the nutrient load, foul odors, nuisance algae blooms and improve water quality.



Hydro -raking



- Removes plants and debris at the sediment -water interface.
- Operates in water depths ranging from 18 inches to 10 feet.
- Clears selective areas including beaches as well as boating and fishing lanes.
- Offers an environmentally friendly solution with no water use restrictions, since chemicals are not used.
- Acts as a budget -friendly alternative to traditional dredging.

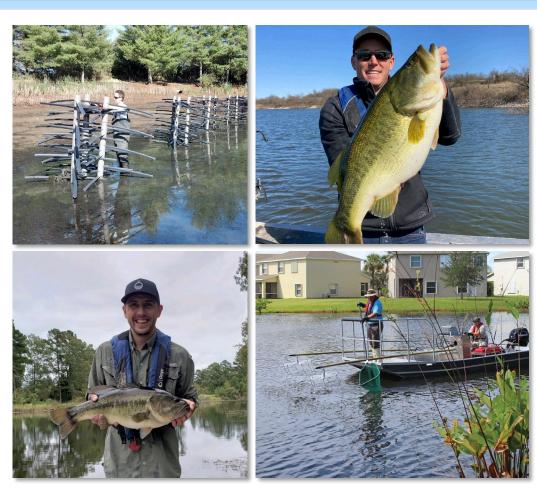




Fisheries Management



- Fisheries Management Plan
- Habitat Management
- Electrofishing
- Stocking
- Predator to Prey Management
- Species Management
- Supplemental Feeding
- Trophy Fisheries Programs





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In addition to restoring balance to your waterbody, we can help you...

- Increase Revenue
 - Higher property values, better resale, higher rents
 - Higher greens fees at golf courses, better experience
- Reduce Aggravation and Costs
 - Reduce complaints and free your time up to do what is important
 - Partner with one vendor that can grow with you for all services
 - Remain in compliance with local, state, and federal regulations
- Support Image
 - Attract the clients and residents you want to have, not need to have
 - Become the showcase property or a state recognized lake
- Enjoy Your Waterbody
 - Swim, boat and kayak
 - Go fishing with your kids or grandkids





We can help Lower Straits Lake with...

- Lake Management Services
 - Vegetation surveys, plant inventories, and treatment planning
 - Water quality testing and reporting
 - Contractor supervision
 - Resident education, meeting support, budget planning
- Aquatic Herbicide Treatments
 - MDEGLE Permit application, compliance, reporting, and notifications
 - Competitive pricing on all products
 - GPS-guided treatments
 - Variety of watercraft and application systems









We can help Lower Straits Lake with...

- Nutrient Remediation
 - Sediment and water testing
 - Rule 97 compliance
 - Product selection and dosing
 - Application
 - Monitoring
- Mechanical Harvesting
 - Experienced, dedicated staff
 - Industry leading equipment
 - GPS-guided harvesting







Overall Strategy

- Lake management starts with collecting data
- Right place, right time
- Invasive species
- Native plants
- Education and support



Pricing

- Herbicide Treatments
 - Competitive pricing & price -match guarantee*
 - Unit pricing for customized treatments
- No additional costs for permit administration, pay the fee only.
- Lake Management Services
- Package price that includes: Surveys, Reports, Treatment Plans, Meetings, Support.
- Additional options for BioSonics mapping and contractor supervision.
- Fisheries, Mechanical Harvesting, Nutrient Remediation, Shoreline Erosion Control, Hydro -Raking, Dredging



Final Thoughts

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We know how important your lake is to you... it's important to us to.

When you choose SOLitude Lake Management for your lake and pond management needs, you get a partner dedicated to finding sustainable solutions that protect and preserve your vital aquatic ecosystems and habitats.



Water: It's 71% of Your World... 100% of Ours.



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