

MOLEAER NANOBUBBLE TECHNOLOGY HELPS SOLITUDE LAKE MANAGEMENT CONTROL ALGAE

SOLitude Lake Management, the nation's leading full-service lake and pond management company, installed a Moleaer nanobubble generator to treat a pond plagued with water clarity, quality, and odor issues. Warm temperatures reduce water's ability to dissolve oxygen, and the warm climate in Florida made it very difficult to maintain a dissolved oxygen (DO) level that would promote beneficial bacteria and reduce nutrient recycling, thereby preventing algae from forming. This led to an anoxic environment in the hypolimnion of the pond, resulting in harmful algae blooms that were unsightly and malodorous. After multiple unsuccessful chemical treatment techniques, SOLitude needed a new solution to reduce nutrient cycling in the sediment and improve water quality.

Moleaer's nanobubble generator provides a new approach to efficiently oxygenating a lake or pond. Moleaer's gas-injection technology produces bubbles 100nm in diameter. At that size, bubbles do not rise to the surface and efficiently mix through the water column. Due to their neutral buoyancy, nanobubbles transfer oxygen with greater than 90% efficiency while also increasing the oxidation reduction potential (ORP).

Client:
SOLitude Lake Management

Type:
Aquatic Management

Unit Type:
200 GPM

Installed:
September 2018

Benefits:
Increased DO to 7-8ppm
Eliminated the Need for Chemical Treatments
Improved Water Clarity and Quality
Eliminated Pond Odor

Pond Size:
1.3 acres



Significant algae formation on the shore of the pond due to heavy nutrient cycling from the sediment.



An unsightly and odorous layer of algae can be seen on the shoreline the day the Moleaer nanobubble generator was installed.



The rapid effects of Moleaer's nanobubbles significantly improved the water quality and eliminated pond odor.

Their unique behavior allows for even oxygenation of a water body, independent of depth, eliminating anoxic conditions in the muck layer. As a result, fewer nutrients are released anaerobically in the sediment.

The nanobubble generator is simple to install and maintain and does not require submersion in the pond. The Moleaer system also provides a single source of aeration, eliminating the need for other equipment to effectively oxygenate the entire pond.

After three weeks of operation, the DO approached saturation at all depths and at all points across the pond. More importantly, the Moleaer nanobubble treatment eliminated the 6-inch muck layer at the bottom of the pond, leaving a transparent, sandy bottom, resulting in a healthy and clear pond.

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