

## 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 blue-green and filamentous algae. 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 for nutrient removal, 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 eliminate the algae blooms.

Moleaer's nanobubble generator provides a new approach to eliminating algae and odors in ponds. 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).



*Algae present in pond prior to air nanobubble treatment.*



*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 reduce the algae bloom and odor at this pond.*

**Client:**  
SOLitude Lake Management

**Type:**  
Algae Control

**Unit Type:**  
200 GPM

**Installed:**  
September 2018

**Benefits:**  
Increased DO to 7-8ppm  
Eliminated the Need for Chemical Treatments  
Successful Reduction in Algal Biomass

**Pond Size:**  
1.3 acres

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, mitigating algae formation.

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 pond.

After three weeks of operation, the DO approached oxygen saturation at all depths and at all points across the pond. More importantly, the Moleaer nanobubble treatment eliminated the presence of algae, and ultimately the 6-inch muck layer at the bottom of the pond disappeared, leaving a transparent, sandy bottom.

[www.moleaer.com](http://www.moleaer.com)