SŌLITUDE
LAKE MANAGEMENT

Managing Large Lake Systems

Tools and Services for Large Lake Management Needs

Lake management programs can vary widely based on the intended management goals and the unique makeup of each individual lake system. As a result, developing an effective management program for larger systems requires not only a detailed initial biological assessment of conditions, but also a high level of applied lake management experience. SŌLitude Lake Management® has the technical capabilities and applied lake management experience necessary to take each project from assessment to implementation.

Nuisance Weed and Algae Treatment

SOLitude operates a fleet of airboats, large skiffs, and advanced drone technology with specialized pump and spreader systems. This equipment allows us to easily and quickly navigate a variety of aquatic systems to perform treatments and other necessary management tasks.

Harvesting

Harvesting is well-suited for clearing large areas of nuisance aquatic vegetation and cutting channels through dense vegetation to enhance access for swimming, boating or fishing. Harvesting is most effective for plants forming a dense surface canopy or for annual plants, like water chestnut, which reproduce from seeds.

Bathymetric Mapping

Bathymetric mapping involves using integrated GPS and hydro-acoustic technology to create a three-dimensional model of your waterbody. This information is vital to managing water quality, aquatic plants, algae and other aquatic life in a large lake system.

Nutrient Remediation

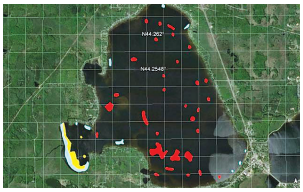
During the nutrient remediation process, products like Phoslock, Alum and Biochar help limit water quality imbalances by binding with excess nutrients. When water quality conditions are more balanced, nuisance aquatic weeds and algae are less likely to thrive.

Biological Assessments

Biological assessments are used to identify the types of organisms in an ecosystem, and this information is utilized when developing a lake management program. Biological assessments include aquatic plant assessments, algae assessments and benthic macro-invertebrate studies.

The condition of our lake and the surrounding buffer area have improved significantly after just one year working with SŌLitude. I appreciate their responsiveness to my inquiries and requests for meetings, and the monthly updates after their on-site visits are very informative. It's been a pleasure working with SŌLitude.

Ed Colahan
ChairmanEnvironmental Committee



Plant Mapping and Surveys

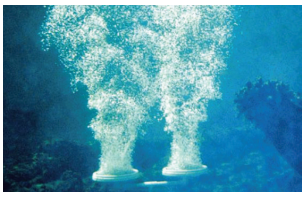
Comprehensive plant mapping is often the first step in assessing a waterbody and developing a lake management plan. Utilizing GPS and GIS, we take plant samplings throughout the lake and create a map that shows distribution and density of the plant populations. GPS and GIS are then used to create treatment maps, which are followed during applications.

Benthic Barriers and Containment Curtains

Benthic barriers cover the substrate of a waterbody, inhibiting aquatic weed growth beneath, and are usually installed around docks and in swimming areas. Containment curtains are employed to hold suspended sediment within a portion of a lake, typically during construction activity. They are also used to contain herbicides within a targeted treatment area to improve contact exposure time and limit the potential for non-target impacts.

Water Quality Monitoring and Testing

Whether your lake is enjoyed for swimming, fishing or simply its scenic view, it's important to keep the water clean and free of harmful bacteria. We offer on-site water quality testing services and also utilize satellite-based Remote Water Quality Sensing Technology, which allows us to scan large lakes quickly and inexpensively. Regular water quality monitoring and testing provides the data needed to keep your aquatic ecosystem healthy.



Diffused Air Aeration Systems

In order to supplement the amount of oxygen in your aquatic habitat, we design and install diffused air aeration systems. These submersed diffuser systems use a shore-based compressor to pump air to the lake, circulating large areas of water and increasing oxygen levels. These systems are the most effective at oxygenating deeper waterbodies, but can also improve circulation in beach areas and coves.

Fisheries Management

From complete ecosystem management, fish surveys, fish stocking and fish removal to permitting and regulatory compliance, professional fisheries management is your ticket to a vigorous and sustainable fishery in any size waterbody. Our fisheries biologists work closely with clients to design an individualized Fisheries Management Plan that is customized to their specific goals, budget and time-frame.

Proven Results: Featured Lake

An entire cove of this lake was covered with water chestnut when treatment began. Through a combination of annual herbicide applications, and limited mechanical harvesting, the cove now supports less than 2% of its surface with water chestnut, which are manually harvested by volunteers.

SŌLITUDE LAKE MANAGEMENT

Contact SOLitude to find out more about our large lake management services.

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