

Importance of Aeration

Many areas witnessed an erratic 2013/2014 winter season with rollercoaster temperature swings from cold to unbearable, combined with several snow and ice events. The overall weather trend resulted in a much colder than normal winter and longer periods of thick ice on most ponds and lakes. The prolonged ice cover is a boom to hockey players and ice fisherman and, in some cases, is a bust to the fish populations that live beneath the surface. Thick ice on a body of water can act like a lid and keeps normal diffusion of atmospheric oxygen from entering the water column. If a substantial layer of snow accumulates on top of the ice, photosynthesis can be greatly diminished and further decrease the amount of oxygen available to fish and other aquatic life. This decline in dissolved oxygen can result in a winter fish kill. Some winter fish kills may not be noticed until the ice melts and others may not be noticed at all as the fish decompose under the ice and sink to the bottom of a lake or pond.



A decline in dissolved oxygen can result in a winter fish kill.

Aquatic Control® recommends aeration to help prevent the conditions that can lead to a winter fish kill. An aeration system can keep an area of water free from ice and allow atmospheric oxygen to dissolve into the water column thus disrupting the “lid” affect. In addition, sunlight will



An aeration system can keep an area of water free from ice.

be able to penetrate the open water areas and be available to the phytoplankton for the production of oxygen through photosynthesis. Maintaining an ice free area will also prevent ice damage to docks and other structures in and around the shoreline of lakes and ponds. Repair to such structures can be expensive and cause delay in spring enjoyment of your pond or lake.

Not only can aeration be used to prevent winter events described above, they also improve water quality throughout the year. Continual, year-round aeration is recommended for a healthy fishery. There are many different ways to achieve

aeration and the proper equipment choice will vary depending on your location, the time of year, and the characteristics of your lake or pond. Diffused air systems can be used year round and require limited maintenance. Surface aerators (fountains) are typically used from early spring through fall when ambient temperatures remain above freezing. Many aquatic managers use deicing/circulator equipment through the winter to keep areas of water open and limit ice encroachment and subsequent damage to docks and other structures in the water. It is recommended that aeration is continual and not only used when conditions are at their worst. Limited aeration, in some cases, can be more detrimental to the aquatic ecosystem than no aeration at all.

Keep in mind that the optimal time for installing aeration equipment is in the early spring when water temperatures are still moderate. Please contact Aquatic Control® to discuss the aeration installation that best suits your situation and budget. We look forward to helping you manage your aquatic resources.



Southwest Indiana Office is Now Open!

As spring brings about warmer days, longer hours of daylight and increases plant and animal activity, Aquatic Control® is coming to life in Evansville, Indiana. We are excited to announce the opening of a new office at 2447 Locust Creek Drive. After taking possession of the building in October of 2013, we have been working to renovate and equip this facility to begin operations by Spring 2014. Things are falling into place and this new opportunity is coming to reality. We are looking forward to servicing the southwest Indiana, northwest Kentucky, and southeast Illinois areas in the years ahead.



Patrick Whitson

Patrick Whitson has accepted the role of office manager. Patrick worked as a biologist/applicator at our Valparaiso, Indiana office for the past five years. While in

Valparaiso, Patrick was in charge of several vegetation management contracts, aided in fountain and aeration system design and installation and also facilitated several large lake applications. We are eager to put this experience to work in this new region.



Cody Sunby

servicing the contracts in the southwestern portion of the state. This regional training is going to aid us in making a smooth transition into this area.

This regional branch office will not only allow us to expand our vegetation management service business, we can also

provide decorative fountain installation and maintenance along with aeration system design and installation. Our goal is to provide professional advice and professional service to achieve unmatched success in aquatic management.

Also joining the force at this new office is Cody Sunby. He joined the Aquatic Control® team in 2013. During Cody's initial season with Aquatic Control® his focus was on



Join us for a
**Grand Opening
Customer
Appreciation Day**
on **May 3, 2014**
at our Evansville office!



Evansville Contact Information

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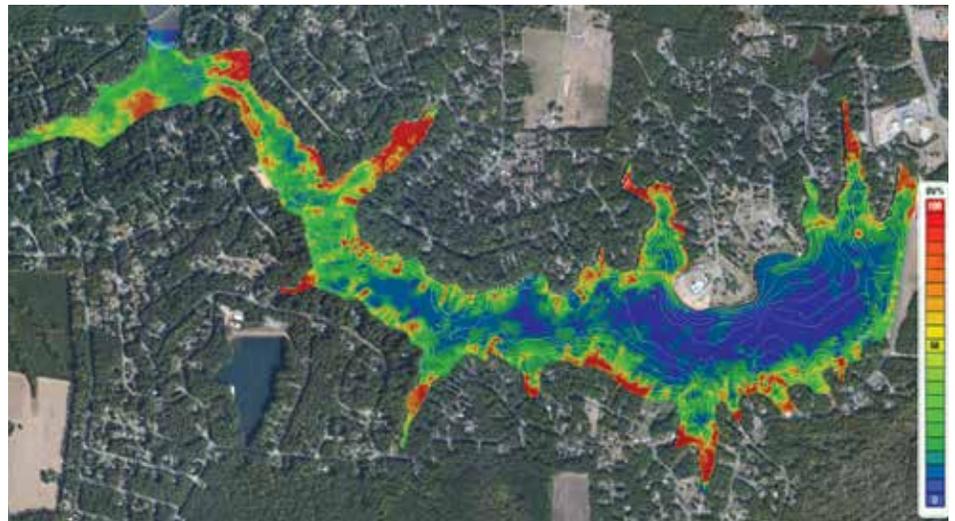
Lake Mapping Services

Aquatic Control® continually strives to keep up with new developments in order to improve the quality of service that we can provide for our customers while managing their important aquatic assets. Recent improvements in technology and hardware have made it possible for us to provide another service to our clients at a lower cost than was previously possible. We have recently upgraded our equipment and training and teamed with a company called Contour Innovations to offer affordable, comprehensive lake mapping. Lake mapping is an important tool for lake management. Gathering baseline data such as lake depth (bathymetry) and plant coverage (biomass) gives our biologists more information to better achieve your aquatic management goals. Lake mapping used in conjunction with some of our other services (fish and plant sampling) helps to give a more complete view of the lake. Subsequent years of mapping will also help to track changes in fish habitat, vegetation coverage, and sedimentation.

The procedure for lake mapping is fairly straightforward. Predetermined survey tracks are downloaded to a boat mounted GPS/Sonar unit to insure that the area of interest is comprehensively surveyed. The operator of the boat then drives the boat along the survey tracks while the plant coverage, bottom hardness, location, and depth information is relayed from the transducer and saved to the unit. The information is then uploaded and analyzed by Contour Innovations who then turn the data into maps and data that can be shared with our clients and used to help guide management decisions. Please contact us if you are interested in lake mapping or any of the other services we provide.



*Above: Blue-Scale Bathymetric Map.
The light blue contours show extremely shallow areas while darker blue contours show deeper areas.*



Aquatic Vegetation Biovolume Map



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Aquatic Control® Welcomes John Cannaday



John Cannaday started with Aquatic Control® at the Valparaiso office in September of 2013. John grew up in Muncie, IN and attended Yorktown

High School. He then obtained his Bachelors of Science from Purdue University in 2011 with a double major of Fisheries and Aquatic Sciences and Wildlife Sciences. During college John was involved with the Purdue University chapters of the American Fisheries Society as well as the Wildlife Society.

While at Purdue he gained experience sampling small stream ecosystems across Wabash River drainage in northern Indiana to assist with research focusing on the effects of biofuels on stream ecology.

After graduating John left Indiana to work and explore in the western side of the country. He first worked on an AmeriCorps Trailcrew in Great Basin National Park. He then worked

at remote salmon hatcheries in Alaska raising Chum, Pink, Coho, Sockeye and King salmon. As part of an anadromous fish marking program in Idaho, he traveled across the state marking juvenile Steelhead and Chinook salmon.

John's duties with Aquatic Control® include vegetation management, assisting with fish surveys, fountain and aeration installation and maintenance.

Welcome to the team John!