



PONDerings®

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of AQUA DOC®

Enjoy Your Lake or Pond This Year!

Maintaining Our Recreational Spaces, Amid the COVID-19 Outbreak

John M. Wilson Jr., President AQUA DOC Inc.

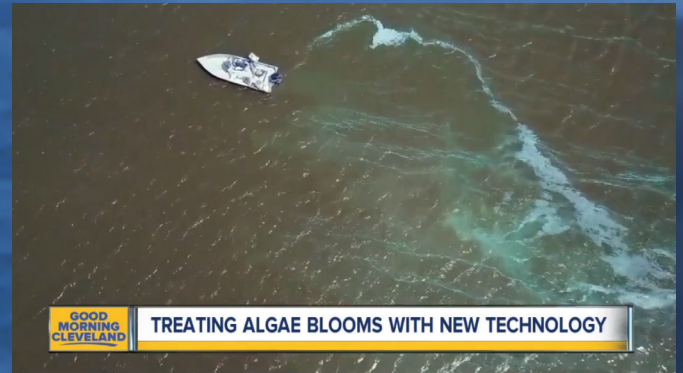
First off, I would like to start by saying my heart goes out to all those impacted by the virus either directly through medical difficulties or indirectly through job loss and economic hardship. We understand this is an unprecedented time, but I am confident we will get through this together. AQUA DOC has had a swift and straight forward response to the COVID-19 Pandemic. Spring time is our time to get going, typically our Spring Kickoff Meeting takes place in mid-March and signifies the beginning of our field season, I look forward to it every year. This year it was an abbreviated meeting at best, conducted mainly over the internet, with most employees working from home. Even though the meeting didn't go as planned, we were able to implement a strategic plan that allows us to safely and responsibly manage our customers waters' moving forward.

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Maintaining Our Recreational Spaces, Amid the COVID-19 Outbreak (continued from page 1)

At AQUA DOC we are extremely fortunate that we can conduct the vast majority of our business while complying with social distancing guidelines. We work in the beauty of the great outdoors, on some of the nicest properties, and stunning waters throughout our service area (Ohio, Western Pennsylvania, Kentucky, Eastern Indiana, Georgia, and the Carolinas), which continues to grow. These project sites include many wonderful parks and public access sites, that offer many recreational opportunities. Our team takes tremendous pride in these types of projects because we know that these areas get a lot of use by the community in which they serve. These places are especially important now when our other entertainment options are so limited. We will continue to strive to maintain these essential areas, giving people the opportunity to interact and with nature, escape the madness of everyday life, and build memories with their families.

Maintaining recreational spaces, along with all the other essential services we provide, including stormwater maintenance, flood control, and keeping waters open for navigation, irrigation, and industrial purposes, are at the top of the list for this season. We are working hard to service all of our customers and we want to let you know that we are continuing to conduct business in a safe and responsible manner so that you can continue to enjoy the places that you love, which we all know is needed now more than ever.



AQUA DOC helping to conduct an innovative application for Blue-Green Algae control on Chippewa Lake, one of our many projects designed to improve recreational spaces.

What is Dissolved Oxygen?

Edward Kwietniewski, Aquatic Biologist, AQUA DOC Inc.

Take a deep breath. Now, exhale. Isn't it wonderful? To walk around almost anywhere you want, and be able to breathe the oxygen that we need to survive. As creatures with lungs, we may take it for granted, and do this with little thought. If you are a fish with gills though, oxygen is something that you may have to pay more attention to. Oxygen in water works differently than oxygen in our atmosphere. It can become depleted or consumed by various gilled organisms. Imagine walking around your home and suddenly you enter a room and there is no oxygen in the air? That would be terrible, but this is a very real situation that can occur in your lakes or ponds and can be harmful to gilled creatures.

Dissolved oxygen is what you may think it is; The amount of oxygen that is dissolved into your body of water for use by anything that needs to breathe. Although "oxygen" itself is a major part of the water molecule, dissolved oxygen is a completely separate entity. It is added to your water rather than a part of the water, and is done so in a myriad of different ways including photosynthesis from plants and algae, wind action that creates waves, and even oxygen-rich water inputs from stream inlets



or springs. In a typical pond, these factors will maintain enough dissolved oxygen to allow gilled organisms to thrive. However, there can be instances where the dissolved oxygen being consumed exceeds the amount that is

being added. In these cases, oxygen will become depleted and eventually harm gilled organisms like fish.

What causes oxygen depletion? Anything that breathes underwater or uses oxygen through respiration will be a factor in oxygen loss. Additionally, anything that increases respiration will force a greater rate of oxygen use. Overstocking fish, having stagnant water, and especially any increase in decomposition will deplete oxygen. To remedy oxygen loss in your lake or pond, consider a bottom diffused aeration system or in shallow situations, a surface aerator to maintain adequate oxygen levels. Correct design and installation of these systems are based on size and oxygen demand of a water body. Contact us and meet with one of our specialists to discuss your waterbodies dissolved oxygen needs and whether you should consider improving it in your lake or pond.

AQUA DOC® Solving problems. Providing Solutions.



BEFORE MANAGEMENT



AFTER MANAGEMENT

Sediment Happens.

Carter Bailey, Aquatic Biologist, AQUA DOC Inc.

Many of us are familiar with the expression Sh*t Happens. This phrase is commonly used to describe how life is full of unpredictable events that no matter how much we plan or take precaution, these events always seem to find a way to throw us out of balance. The process of sedimentation within your lake or pond is much the same. Yes, there are many precautionary measures that can be taken to prevent sediment formation such as, forebay sediment ponds, shoreline and stream bank erosion protection, proper leaf litter disposal, and even to some degree aquatic vegetation management. But it always seems like no matter how much we try to prevent them, Sediment Happens. Accumulations along the bottom of a lake or pond are inevitable.

Depth is your lake or pond's best friend. Shallow water is an ideal environment for nuisance and invasive aquatic plant growth, and predominate algal blooms. We typically suggest 4.0 - 6.0 ft average depths to maintain a healthy, well-balanced ecosystem. There are a few ways of addressing excess sediment accumulations within your lake or pond, this includes dredging, beneficial bacteria products, and even bottom diffused aeration in some situations.

Dredging is a complete reset of your aquatic ecosystem. When other methods can no longer maintain the functionality of

your waters, and there is a serious lack of depth, physically removing these sediments might be the only answer. Beneficial bacteria products are designed to promote the decomposition of organic matter (such as leaves, fish waste, decaying algae and aquatic plant material, etc.) along the bottom of your lake or pond. Aeration works similarly, when oxygen reaches your sediments, naturally occurring bacteria will become stimulated into conducting aerobic decomposition, this process is much more efficient in decaying organic matter when compared to anerobic decomposition (with a lack of oxygen). Aeration and beneficial bacteria products can also be used in combination to achieve maximum results, this strategy can also be used as a preventative measure in newer lakes and ponds. If you are worried about sedimentation having a negative impact on your waterbody, consider one of our lake studies programs, analysis of your depth and sediment will allow us to determine the best strategy for your lake or pond moving forward.



Leaders in Aquatic Technologies

Clearcast®

Clearcast is the new industry standard for cattail control. This product has a very clean and favorable environmental profile. In fact, it is only herbicide on the market that has been granted tolerance exemptions by the EPA due to its clean profile and rapid degradation.

ProcellaCOR EC

ProcellaCOR treats the weeds that keep coming back using a new mechanism and a new active herbicide for fast and long-lasting spot treatment. This new technology is extremely effective in controlling invasive weeds, while protecting wildlife habitat in the form of beneficial native plants.

MUCKBIOTICS

MuckBiotics is the next generation of probiotic tablet for restoration and maintenance of impaired water resources. These muck digesting tablets saturate the sediment layer with rare earth stimulants and a broad spectrum of natural bacterial cultures.

Amp↑®

Amp activator is a new adjuvant for aquatic plant management. This adjuvant contains a concentrated blend of proteins and surfactants designed to improve the efficacy of aquatic pesticides. Amp improves the efficacy of both aquatic herbicides and algacides.



AQUA DOC®

LAKE & POND MANAGEMENT

*Enjoy Your Lake or Pond...
THIS Year!*



PROVIDING THESE OUTSTANDING AQUATIC SERVICES



Algae & Aquatic Weed Control



Bottom Diffused Aeration



Shoreline Renovation

**Fountain Installation
& Repair**



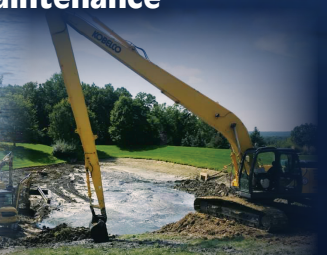
Watergarden Installation & Maintenance



Fish Stocking



Lake Studies



New Construction

Dock Installation



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