

#### WATER WATER EVERYWHERE

-Rudi Huber, Northeast Regional Sales Manager for AquaMaster Fountains and Aerators

The world is quickly accepting the fact that freshwater is a precious & limited resource. It has attracted the attention and concern of a growing number of people, from Associations to Government to Golf Courses - its protection has become a national priority.

In our environmentally conscious world. more & more aquatic managers are incorporating aeration equipment in conjunction with bioaugmentation products (bacteria, enzymes, etc...) more than ever, to keep their body of water healthy. with excellent results. Their goal is to increase dissolved oxygen (DO) levels & slowly decrease the use of chemicals, resulting in an aesthetically pleasing body of water with limited environmental

#### A POND'S PURPOSE

Beauty, tranquility, a source of recreation - ponds & lakes are desired destinations, whether for a day at the beach or your home. A pond's primary purpose is storage & potential delivery of water. Of course we also have wetlands and natural springs present as well. In all cases, an

Fountains

Aeration Systems

Weed Control

Biological Aug-

mentation

Lake Dyes

Fish Stocking

Water Testing

**GPS Mapping &** 

Lake Survey

Fax: 757-873-4896

Email: ktucker@vlmc.net

Algae & Aquatic

P.O. Box 236

23458-0236

Virginia Beach, VA

unsightly & foul-smelling body of water is an unpleasant problem which can be corrected.

The natural process of evolution for ponds is to eventually fill in & disappear. As a pond's water quality deteriorates, layers form. This process, called *thermal* stratification (temperature layering of the water body), must be interrupted or eutrophication (excess nutrients more prominent than DO) will result. This occurs when your pond is richer in dissolved nutrients than dissolved oxygen.

A typical two acre pond can lose up to one-third of its capacity to hold water within five years because of organic sludge buildup. Non-decomposed debris accumulates on the bottom as organic sludge and gradually decreases the depth of the pond.

#### HOW AERATION WORKS

Aeration is an effective, environmentally -safe solution to the problems of algae build-up, aquatic weeds, bottom |

sludge and aquatic odors in ponds and aquatic odors in ponds and lakes.

Aeration has become the preferred method of water quality control because it effectively attacks the causes. Other methods such as lake dyes and algaecide treat the symptoms of poor water quality - algae, unpleasant odors, aquatic weeds, even fish kills, but fail to manage the root of the problem - poor water quality.

If the key ingredient, air, in the form of DO, is not dissolved & dispersed by natural wind & wave action, then it will need to be re-introduced into the aquatic ecosystem by some mechanical process. AquaMaster manufactures a full line of fountains and aerators just for this pro-



PAID

PRSRT STD U.S. Postage Norfolk, VA Permit No. 292

www.virginialakemanagement.com

"A Full Service Lake & Pond Management Company"

Volume 1, Issue 3

Fall 2007

# **Aquatics Updates**

Virginia Lake Management Company

Volume 1, Issue 3

(757) 591-8780 P.O. Box 236 Virginia Beach, VA 23458-0236

### Virginia Lake Management partners with...





proud to announce it has been selected by and now we will be able to combine the bene-Cabela's, the World's Foremost Outfitter, as fit of Cabela's outdoor expertise with the exthe exclusive Lake Mapping Partner of Caperience and knowledge that Virginia Lake bela's Trophy Properties in Virginia.

their aquatic resources by providing detailed of their lake mapping partners. "Kevin lake mapping services. "Cabela's Trophy ties. Properties", as Kevin Tucker explained, "is a network of experts who help those who buy, The firm invites you to visit the Cabela's Trosell, manage, develop, lease, and own recreaphy Properties website at tional properties across North America, and www.CabelasTrophyProperties.com. around the globe".

an understanding of the resource. It is critical to you through this program you can call make the right management decisions. An (866) 697-2584 or email him at accurate lake map provides the information ktucker@vlmc.net. needed to maximize the aquatic resource. excavation, and renovation.

Virginia Lake Management Company has www.CabelasTrophyProperties.com. been helping people who have owned or

Virginia Lake Management Company is managed recreational properties since 1998 Management brings to all of it s customers.

Cabela's Lake Mapping Partners help pond Cabela's Trophy Properties is excited to have and lake owners understand and maximize Virginia Lake Management Company as one contour, depth, and 3D maps of their water Tucker's enthusiasm is contagious, and he bodies. Recreational property owners, lake loves helping people enjoy their aquatic reassociations, golf courses, marinas, develop- sources. We look forward to seeing him do ers, governmental organizations, and fishing great things in Virginia" stated Steve Bartosh, clubs are some of the customers who utilize Senior Consultant for Cabela's Trophy Proper-

If you are a lake or pond owner or manager Full enjoyment of your lake or pond requires and want to know about the services available to know the exact acreage and depths to Kevin Tucker at (757) 591-8780, toll free at

Uses for lake maps include boating and fish- 1." About Cabela's Trophy Properties LLC: ing, sedimentation monitoring, aquatic weed Cabela's Trophy Properties LLC, a wholly control, fisheries management, habitat devel- owned subsidiary of Cabela's Corp. (NYSE opment, land use planning, construction and CAB), is a global network of experts who serve the recreational industry. For more information please call 1.800.535.6007 or visit

#### Inside this issue:

Don't "Fall" Down -Randy Bolin, VLMC

Using Biologicals to Control Nutrients in Your Ponds -Kyle Finerfrock, VLMC

SePRO Corporation Introduces Galleon\* SC Aquatic Herbicide -Shaun Hyde, SePRO

Canada Geese- Dealing 3 with these Nuisance -David Ellison, VLMC

WATER WATER EVERY- 4 -Rudi Huber, AquaMaster



Page 4

### Don't "Fall" Down

-Randy Bolin

Property Managers and homeowners don't" Fall" down on your responsibilities to minimize nutrient levels and pollution in your ponds this Fall, because it will impact the health and water quality this

With Autumn upon us, falling leaves and grass fertilizers create excessive nutrient levels that lay dormant through the Winter. Excessive nutrients accumulating in lakes and ponds during the winter months leads to out of control algae blooms in the Spring. Because of this, it is critical that a minimal amount of leaves, grass, and fertilizer end up in the permanent pool of your retention ponds.

Well- managed stormwater retention ponds can be effective in collecting non-point source pollution from stormwater runoff. However, some retention ponds cause homeowner complaints about fish kills and algae blooms. These problems associated with ponds may be due to homeowner activities. To ensure minimal amounts of pollutants enter resi-



Algae Bloom caused by excessive nutrients in the pond.



Pond Bacteria under magnification

dential ponds, cultural practices need to be evaluated. In order for property managers and homeowners to achieve a better understanding of proven techniques that will significantly improve water quality, we would suggest learning more about the following:

**Aquascaping** is the practice of using aquatic and wetland plants to landscape in and around the water. Although the main purpose is to beautify, aquascaping also aids in pollutant filtration, controls erosion of the pond banks, attracts wildlife and increases much-needed wildlife habitat in urban settings, and helps control invasive non –native plants.

Vegetative Filter Strips are areas with dense vegetation (usually grass) through which runoff must flow before entering the pond. Vegetative filter strips can remove pesticides, nutrients, and sediment from flowing water.

## Using Biologicals to Control Nutrients in Your Ponds.

Your pond is a dynamic cycle of biologi-

—Kyle Finerfrock

cal processes working together to maintain a healthy ecological state of balance. The cultural effects of people can often throw off this balance, which can create problems in your pond. The inflow of organic waste is most often the reason for problems in our ponds today. Organic waste can include leaf litter, grass clippings, animal waste, and fertilizers, which when broken down, can create excessive nutrient levels in nearby ponds. Ponds with high nutrient levels often have problems with algae blooms and invasive aquatic weeds.

A very effective way to deal with organic waste and high nutrient levels is the use of additional beneficial pond bacteria also known as biologicals. These strains of bacteria are already naturally occurIt is very important that we control nutrient and pollution levels in our ponds, making them more visually appealing while maintaining their utilitarian functionality.





ring in the pond and by adding more to the pond you can speed up the process of breaking down the organic waste. This accelerated process of breaking down organics also helps to convert the nutrients into unusable forms before an algae bloom can occur. Biologicals can also improve water clarity, control foul odors, and improve the overall look of the pond. These biologicals can come in many different varieties and can be targeted to specific problems in your ponds.

Virginia Lake Management Company

already provides many of its customers

with biological augmentation as part of safe area away from predators. its comprehensive pond management strategy. For those pond owners who have not chosen to implement this proven technique for water quality improvement, we would highly recommend that you consider doing so in the future. To learn more about these products, and find out which products might be best for your pond, please consult one of our lake management specialists

## -Shaun Hyde

SePRO Corporation Introduces Galleon\* SC Aquatic Herbicide



A new tool for the selective control of emergent, floating and submersed aquatic weeds like hydrilla. Eurasian watermilfoil, water hyacinth, water lettuce, salvinia and duckweed, has received its US EPA registration on July 17, 2007. SePRO began extensive evaluations of this reduced risk aquatic herbicide in 2001 and initiated the required regulatory studies in 2004. SePRO has now begun the process of seeking individual state registrations with South Carolina, North Carolina, and Virginia registration already secured. Galleon SC is an excellent tool for management of freshwater aquatic vegetation in: ponds, lakes reservoirs, marshes, wetlands, bayous, drainage ditches, nonirrigation canals and other quiescent bod ies of water; shoreline and riparian areas for the control of floating and emergent

plant species; and also for the dewatered areas of quiescent bodies of water. Galleon SC is the first herbicide in its class (ALS-inhibitor) to receive a nationwide EPA registration for submersed weed control. Galleon SC's hydrilla killing activity is similar to that of the industry leading Sonar\* brand. Galleon SC is slow acting and selective to the targeted invasive species, providing negligible risks to many non-target native species. Galleon SC is expected to become an integral part of herbicide rotation programs for hydrilla management. Research with Galleon SC was conducted by SePRO at its own Research and Technology Campus (SRTC) in Whitakers, NC and in various field sites across the country, as well as by cooperators like the USACE ERDC Environmental Laboratory, University of Florida, Purdue University, North Carolina State University, Mississippi State University and Washington State University. This extensive field and laboratory research

has established an excellent understanding of efficacy on a wide range of target and non-target species when using Galleon SC. The use of this product has demonstrated fairly specific efficacy on two troublesome invasive plants, hydrilla and water hyacinth, when used as an inwater application. In addition, Galleon SC is effective on multiple nuisance species of floating leaf plants when sprayed on the leaf surface.

Galleon SC is the industry's newest advancement in aquatic plant management, and this new chemistry is showing excellent promise when used alone or in combination with other aquatic plant management tools.

\*Trademarks of SePRO Corporation.



#### Canada Geese- Dealing with these Nuisance Birds -David Ellison

Canada geese are often thought of as migratory birds. Unfortunately, many of the geese are resident birds that do not migrate and are often a nuisance to homeowners and businesses. The birds find ponds to be desirable habitats because the surrounding grass is usually well maintained and the water provides a

Geese produce a large amount of droppings per birds and this can be visually unpleasant, unhealthy, and load your pond with nutrients. Canada geese also display extremely aggressive behavior when protecting their mates and towards people that may walk near their nesting

Early winter is a good time to address a goose problem. Geese start mating in late winter/early spring and will not leave that area after establishing a nesting site. By establishing a management plan in early winter, the geese can be prevented from mating and nesting around your pond. We as pond managers can apply a product to the turf that makes the grass unappealing for the geese to eat. Early planning to establish a management plan can go far in limiting your goose problems throughout the year.



Page 3

Volume 1, Issue 3 Volume 1, Issue 3

