



Aquatics **in** Brief

Volume 6, Issue 1

Inside:

Page 2

Mind the Frogs

**How Did That Weed
Get in My Pond?**

Page 3

NPDES is Here

Page 4

Our S⁰Ls

Page 6

**The Benefits of
Electro-Fishing**

Object Permanence

Page 7

Lake Intervention!

Check Us Out...

Buffer Zone Functions and Benefits

By **David Ellison, Aquatic Biologist**



Stormwater maintenance will typically include recommendations about buffer management and what is needed for the buffer around the pond. Often pond owners and those who live around a pond or lake will know that a buffer is good for the pond, but not the dynamics as to how a buffer benefits in the filtration of water, nutrient reduction, erosion control, goose control, and mosquito control.

When rain water drains through parking lots, streets and then grassy areas, the water will have accumulated a significant amount of nutrients that will lead to algae blooms. Without a buffer the water will continue to flow across the grass unimpeded and nutrients will only be filtered by the grass before it reaches the pond. Established

tall grasses will do the most effective job of filtering nutrients because they have a strong root system and can sequester nutrients quickly. Studies have shown that buffers will be most effective at removing nutrients beginning at three meters wide and even

Buffer zones are often an overlooked aspect of the aquatic habitat and the function of the buffer is significant to the overall health of the pond.

wider buffers will do a better job at filtering nutrients. Although a short manicured buffer may look aesthetically appealing, the cultural practice that is healthy for ponds and lakes is to allow the native grasses to grow and remove the non-beneficial species that will reduce the
Continued on page 3



**A Full Service
Lake and Pond
Management Company**

NPDES is Here By Shannon Junior, Aquatic Ecologist

After many years of judicial and legislative battling, the NPDES permit for aquatic pesticide applications has been finalized and went into effect on October 31, 2011. If you are a recipient of this newsletter, then there is a high probability that this new permit will directly affect you and your pond. NPDES stands for National Pollutant Discharge Elimination System, and it is the primary federal legislation that regulates point source pollution to the waters of the U.S. Although aquatic pesticide applications were previously exempt from this permitting requirement, recent judicial reinterpretation of the law has mandated that the residues resulting from these applications should be regulated within the same framework as other water pollutants. So basically, if you own or manage a property with a pond, then you will be responsible for making sure that all pesticide applications related to the pond meet the requirements of the new permit. Some of the activities that will be regulated under this permit include algae and weed treatments in the water, shoreline vegetation control, and mosquito control. And the most important part of this new law is that as a decision maker or financier for the applications, you are just as liable for permit compliance as the applicator.

Although NPDES is a Federal permit, the legislation is implemented by the individual states in most cases, so the permit requirements are not the same in every state. At SÖLitude Lake Management®, we are licensed to apply pesticides in eight states, and are very familiar and up to date with all of the necessary regulatory compliance required in all of

these jurisdictions, ensuring that all of our clients will be properly covered. In general, the permit requirements are geared to minimize the overall amount of pesticides applied to the water, to reduce the number of adverse incidents related to pesticide applications, and to ensure that violators are held accountable for their actions.

Since the decision maker/financier and the applicator are “co-permittees” (defined in the permit as “operators”), the conditions of compliance may be the responsibility of one party, but are the liability of both. For instance, the decision maker/financier will need to demonstrate that Integrated Pest Management (IPM) strategies have been considered prior to the decision to apply pesticides. This may include non-chemical control methods such as aeration, beneficial bacteria, and triploid grass carp. Other permit requirements, such as the identification of target vegetation and the proper calibration of the application equipment would be controlled by the applicator. Permit compliance information will need to be maintained for each site, in addition to detailed documentation of each pesticide application. For operators exceeding certain applications thresholds (limits vary by state), a Pesticide Discharge Management Plan (PDMP) will need to be prepared and continually updated, which will outline the specific procedures utilized by that operator to control and minimize the amount of pollutants discharged into state waters. Some states will also require that all operators exceeding the thresholds will submit a Notice of Intent (NOI) prior to any treatments, with a permit fee to be paid at the time of submittal.

So exactly what is your responsibility as the pond owner or manager? Because the permit requirements vary by state and are based on site-specific conditions, there is no standard answer to this question. However, you will need to be familiar with the specific pesticide regulations for your state and work with a qualified aquatic pesticide applicator to develop a compliance program for your pond or lake. It is important to ensure that all aquatic pesticide applications to your pond or lake are completed by knowledgeable and experienced applicators that are aware of and compliant with the new regulations. SÖLitude Lake Management utilizes a specialized lake management software program to manage our application data, and many facets of permit compliance are already part of our daily operations. We will work with our clients and our industry partners to ensure that all of our operations are compliant with these new permit requirements, and can provide consulting services for any operator in the development of a NPDES Pesticide General Permit compliance program.

Unfortunately, as we move forward and the full extent of these new regulations are realized, you could be faced with some additional permit compliance fees or other associated costs related to the required filings and compliance work resulting from the Federal NPDES permitting. We will keep all of our clients abreast of the changes as they occur. ■

For information on the specific regulations for each state, please visit http://cfpub.epa.gov/npdes/contacts.cfm?program_id=410&type=STATE

Buffer Zone Functions and Benefits Continued from cover

ability of the grasses to filter the nutrients.

Maintaining a healthy stand of plants within the buffer will also allow for the root system to become well established and lower the risk of erosion. Routinely cutting the buffer zone, scalping the turf along the pond banks and allowing trees to grow in the buffer can all lead to erosion and additional nutrient loading. This will lead to the addition of sediment, increased algae, and the shallowing of the pond over time.

Geese can also be a nuisance problem around ponds, often establishing nests and remaining for many years. One of the most effective practices to reduce or eliminate geese is to maintain a

healthy, dense, tall buffer. Geese will often go to another body of water rather than deal with the difficulty of accessing a pond or lake that has an established buffer that does not allow a line of sight to the body of water. Buffers will also provide habitat for numerous non-threatening species and mosquito-consuming predators.

Having a healthy, beautiful pond in your community will give families a place to fish and increase home values. Buffer zones are often an overlooked aspect of the aquatic habitat and the function of the buffer is significant to the overall health of the pond. Establishing buffer zones is a simple practice that will provide great results for the health of the water body. ■