



# On Our Pond

A NEWSLETTER FOR CLEANER WATER & BETTER POND ENVIRONMENTS



Volume 10 No 3

Adopt-A-Pond is sponsored by Hillsborough County Stormwater Management, the Southwest Florida Water Management District, and YOU!

Winter 2004

## WHERE WE'VE BEEN

### Education Meetings

- Cross Creek HOA
- Arbor Hills
- Mossvale Pond
- McCrea Pond

### Plantings

- Riverwatch Pond
- Boyette Springs
- Manor Oaks
- Camp Florida
- Bloomingdale West

### Pond Walks

- Black Pine Drive

## OUTSTANDING JOB!! KEEP IT UP



## FREEBEE BOX

- Rain Barrel Booklets & Videos
- Carp signs (w/ permit)
- AAP hats

Call for yours now!

These kids worked their hearts out conducting a very ambitious and difficult rehab project on the pond at their community civic center. Their hard work and dedication has paid off in one of the best pond clean up efforts we've seen in a long time. Want to know more see **page 3**.

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## MINIMUM FLOWS AND LEVELS - Do You Know the Basics (Part 1)

By Carlos Fernandes, Ph.D.

State law (Section 373.042, Florida Statutes) mandates the establishment of minimum flows and levels (MFLs) for lakes, wetlands, rivers, aquifers and first magnitude springs. The legislation directed the Florida Department of Environmental Protection or the water management district to develop a schedule for the establishment of MFLs.



As defined by the statute, the minimum water level shall be "the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area". The minimum flows and levels process is an attempt to improve the existing Adopted Levels. It should compile the best available information for the area and shall be developed with consideration of "...changes and structural alterations to watersheds, surface waters and aquifers, and the effects such changes or alterations have had, and the constraints such changes or alterations have place on the hydrology of the affected watershed, surface water, or aquifer..." with the stipulation that these considerations should not allow for the existence of harmful withdrawals.

Adoption of Minimum Guidance Levels per se is no guarantee that it will protect the lake from significant harm; however, it will set the standards to be pursued during the implementation of recovery techniques and/or establishment of regulatory compliance. There are three proposed guidance levels and two identifiable minimum levels for lakes. Next time we will explain what they are and the expected impact on your lake.

## POND REFLECTIONS - A Reminder for Winter

We all know that most problems in our ponds, originate outside of the pond in the watershed. It is the community surrounding the pond that impacts the water quality the greatest - for better or worse. Of course, with every passing car comes more oil and grease, nutrients, and other pollutants but our individual, cumulative actions, ultimately determine the fate of the pond. It is the backyard runoff containing nitrogen from fertilizers and dangerous pesticides that can damage water quality, and aquatic plants and animals that live in your pond. This may sound like old news to many of the pond group members but it is critical for everyone in the watershed to practice "pond-friendly" habits. C'mon, we all have the neighbor that believes if a lot is good, then more is better, and too much is just right! This season try to incorporate the following into your pond and yard maintenance activities:



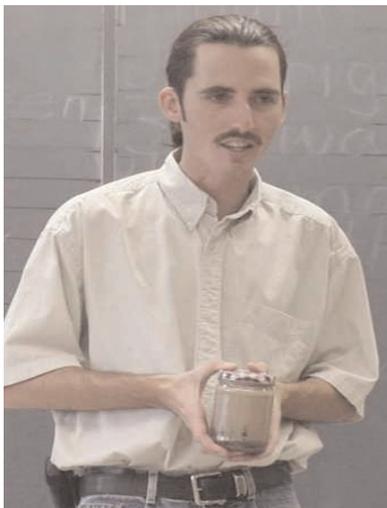
- 1. Easy on the fertilizer:** Less is often best. Over-utilization of fertilizers can be hazardous to your yard and pond, and will encourage the growth of nuisance plant species.
- 2. Control yard pests responsibly:** Pesticides can harm people, pets, beneficial organisms and many of the aquatic organisms living in your pond. Remember, winter is the slow season for pests.
- 3. Conserve water:** Most Florida lawns do not need much water in the winter and over watering can encourage the growth of many lawn "weeds" increasing the need for herbicide. Shorter and cooler winter days mean plants grow slowly or not at all - this drastically reduces their demand for water.
- 4. Plant trees or shrubs:** According to UF/IFAS, trees such as Bald Cypress, Sweetgum, Southern Waxmyrtle, and Dahoon Holly help reduce runoff, remove pollutants from the air and water, provide wildlife habitat, and will increase property value.
- 5. Assemble the pond group:** Now is the time to remove cold-damaged and nuisance vegetation. Better do it now - the growing season is coming! Also, check those storm drains. Are they marked? If not, contact us.

## A TALE OF TWO PONDS

Time to pass out some kudo's for all the hard work. The gang of really hard working kids out at Bloomingdale West Recreation Center's after school program have put in an extraordinary effort in rehabilitating their pond. Under the guidance of recreation leader Sam Haslett, about 30 Cimino Elementary School students worked on a weekly basis cutting back nuisance and invasive vegetation from the bank and removing trash and debris from the pond. The kids actually waded through the waist-deep water and fished for unknown items lurking below. They found bicycles, shopping carts, a lawnmower, construction materials - they even pulled out a fish tank! The kids also filled many large bags with trash, tennis balls, coke bottles, and other small items.

On to the fun! After the clean up phase, which also consisted of County crews removing the large invasive vegetation and reconstructing the entire pold bank, the kids got on to fun stuff. Adopt-A-Pond supplied over six hundred assorted native and beneficial plants to improve water quality, stabilize several locations along the bank, and encourage wildlife to visit the pond. Now the kids really went to work. All 600 plus plants including blue flag iris, golden canna, duck potato, pickerelweed, sand cord grass, and lemon bacopa were planted in just several hours by the budding landscape architects and environmental scientists.

In addition to good, old-fashioned hard work, the young naturalists learned several important lessons from the clean up and planting. Many of the kids couldn't believe that people would use the pond as a dumping ground and if it wasn't for them and Coach Sam, the pond would have stayed that way. It was one of the first times in their young lives that their actions had significant positive impacts to not only the environment but the entire community. They gained a sense of accomplishment and ownership by creating something that people as well as animals will enjoy for many years to come, and for that, they should truly feel proud!



## PASSING THE TORCH...ER, SHOVEL - Moving on

By Stormwater Staff

Experienced pond groups know that nothing ever stays the same in a pond. It's constantly changing, year to year, season to season. Well, our program tends to do that too (it's only fitting since we work in ponds). But with every change there's an opportunity to improve because for every drop that slides over the outfall, another is pushing in behind to take its place...but enough with the metaphor already!

For the past four years the Adopt A Pond Program has had one man to thank for all of the success that the program has been able to achieve. John McGee was able to expand this newsletter that you're now reading from a four page black and white pamphlet filled with your occasional fluff piece, into an eight page, full color professional publication filled with your occasional fluff piece. During John's tenure the program has expanded greatly adding new members every day and offering new programs to the citizen's of Hillsborough County. He singlehandedly created the Stormwater Ecologist Program as well as the Ditch Marking Program because he saw there was a need to increase the program's outreach from the feedback he received from its members. John always made a sincere effort to foster a change in the way people interacted not just with the environment in their back yards but with the environment as a whole. John's tireless efforts to improve on the program will be missed. His unique sense of humor, distinct look at the world, and sometimes perplexing questions will be missed by each of us here at the County. We wish him the best at his new endeavors and know that he will succeed and excel, as he did here so well. The program will miss him but the program will go on. Next Issue we will introduce John's replacement: Jason Mickel.



## POINTS OF PRIDE

### Good Kids Doing Good Work

By Martin Montalvo

Every day Adopt A Pond gets numerous request for assistance. Sometimes its just to answer a question, sometimes its a request for materials, but regardless of the request were always happy to assist in whatever way we can. Out of all of these requests, occasionally we get something that we're really proud of having helped with.

Adopt A Pond had the good fortune to have helped a very intelligent and enthusiastic young man earn his Eagle Scout Badge. John Peter Dolphin designed an Eagle Scout Project in which he was going to perform an environmental rehabilitation on Lake

Chapman, in the Brandon Area. John Peter convinced over thirty of his fellow scout and school friends to donate their time and effort to restoring the littoral area adjacent to the Rotary Club's Camp Florida facility. This facility provides opportunities for under privileged and handicapped children to enjoy the outdoors in a safe and nurturing environment.

John Peter organized each of his volunteers into specific groups, each tasked with a different responsibility. His hard work and leadership allowed for an extremely difficult job to be conducted within just a few hours. A little forethought on his part allowed John Peter to contact the program to provide him and his volunteers our technical expertise. We were so impressed with his initiative that we even offered to provide the plants for his restoration. We commend this young man for his hard work and is proud to have been associated with his efforts. Good Job JP!!!

### **READY... SET... APPLY FOR THE POND JUDGING THIS SPRING!**

it's time to get ready for the annual Best Maintained Pond Competition! The "Pond Judging" will be coming in late Spring 2005, so plan on it. And tell your Group Rep to send in the application when it comes. You're pond could be the best of the year!

## MANY HANDS MAKE FOR A LIGHT LOAD - How to Find Help



By Martin Montalvo

Sometimes you may feel that you just don't have enough help to accomplish everything that you want to on your pond. Well, here are a few tips for recruiting the necessary help for your pond clean up and/or planting.

First, make sure that you've recruited within your own neighborhood; after all they are the ones who will benefit the most from the work on the pond.

Distribute flyers or send emails to each of the houses on the pond advising them as to what you intend to accomplish, the date and time of the event, what to wear

and bring, and finally, how to contact you if they have questions.

Another recourse is local school service groups. Each of the local high schools and some middle schools have service groups such as Key Club or Interact, in which the students are required to perform a certain amount of service hours each year. A simple call to the school and a discussion with the clubs academic advisor could result in a multitude of help from some very energetic and eager assistants. A phone call to your local Boy Scout or Girl Scout Troops could also result in some great assistance. Many of the requirements for advancement in these organizations require that they participate in certain civic, environmental and or service projects. These groups are usually highly motivated and prepared to work.

# Beyond the Pond

## *FOCUSING ON ISSUES FROM BEYOND THE SCOPE OF ADOPT-A-POND*

### **THE LOCAL MITIGATION STRATEGY - A GUIDE TO A SAFER COMMUNITY**

By David Glicksberg, P.G.

Following a major disaster, the long process of recovery and rebuilding begins. Ultimately, this includes trying to determine how such a disaster, or at least the resulting effects, can be prevented from happening again. In Emergency Management, this is called mitigation, including actions that can be taken before a disaster, or when we rebuild after a disaster that will reduce the risk of property damage or loss of life in the future.

In 2000 the State of Florida Division of Emergency Management (DEM) contracted with Hillsborough County and the local municipalities of Tampa, Plant City, and Temple Terrace to prepare a county-wide Local Mitigation Strategy (LMS). A committee composed of representatives from local governments, agencies, and businesses throughout the County was established, and a LMS document was developed and adopted county-wide by each community.



The LMS has four major steps. The first is the Vulnerability Assessment, which identifies possible hazards each community could face. In the Tampa Bay region the number one hazard is flooding which causes more damage than all other hazards combined. Other hazards include hazardous material accidents, severe winds due to tropical storms, hurricanes, tornadoes, wildfires, lightning, sinkholes, droughts, freezes, and terrorism.

The second step is to identify and evaluate the Guiding Principles, which are those policies, regulations and procedures used by local officials to make safety decisions. Based on an evaluation of these guiding principles, the LMS committee identified Mitigation Strategies (step number three) in order to move toward a safer community.

The fourth step in the process is to identify Mitigation Projects as part of the overall Local Mitigation Strategy. The mitigation projects represent a prioritized list of projects aimed at making our community safer. The list is updated annually and includes such things as fortifying or strengthening schools to serve as shelters, strengthening other critical facilities, drainage improvement and other flood mitigation projects, as well as public education and training. Local governments work with the State and the Federal Emergency Management Agency to help fund the identified mitigation projects in order to reduce future risks to the community.

Here are some ways that you can help to reduce the risk to you and your family, business, or neighborhood: 1) Prepare a family disaster plan, 2) Prepare a business disaster plan, and 3) find out more about the Community Emergency Response Team (CERT) training available through the City and County Fire Departments, or the Citizen Corps Council.

For more information, check out the following websites:

[www.hillsboroughlms.org](http://www.hillsboroughlms.org)  
[www.tampabayprepares.org](http://www.tampabayprepares.org)  
[www.flash.org](http://www.flash.org)  
[www.fema.gov](http://www.fema.gov)

## COMMON SENSE SOLUTIONS TO FLOODING PROBLEMS

### Things Each of Us Can Do to Alleviate Problems



By Stormwater Staff

The recent hurricanes taught us all a few things. Some of these lessons would seem to be self evident but sometimes they bare repeating for us to both to learn from and get a few laughs out of.

The first lesson is to secure all loose materials around your home. Try and think in terms of anything that can be washed away into the storm system and possibly cause a problem. During one of the storms, a neighbor had allowed the lid from one of his trash cans to get into an inlet. This one garbage lid blocked a storm pipe and caused the water in a neighborhood to back up to the point that homes that were normally high and dry, were about to go under.

Lesson two, keep materials out of the designated stormwater conveyance systems. One person had been stockpiling cut lumber from his yard in the center of a dry ditch. Any idea what happened? Here's a hint, think beavers. A dam formed in his backyard and the storm system was not allowed to convey properly. This resulted in the only ingress and egress for an entire neighborhood to go under a foot of water.

Lesson three, keep your dirt on your property. Every ounce of dirt, grass or leaves that each of us allows to flow off our properties can eventually get into the stormwater system. This mass accumulation of sediment and other materials can cause clogs to form in the stormwater pipes as well as decrease storage capacity in our retention ponds. This is without even considering what effects it has on water quality. Remember to collect your grass clippings and rake your leaves regularly to prevent these materials from causing problems for each of us.

Finally, remember that just because your individual home may be high and dry, that is no reason to not be concerned. Each of us use the same roads, and every inch of water that stays on those roads endangers each of us equally.

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## IS MY POND SPRING FED OR IS THAT NESSIE?

By Jason Mickel

Actually, probably neither! However, just like the infamous Loch Ness Monster, which has been encouraging believers and frustrating skeptics for generations, the idea of "spring fed ponds" has caused a similar stir in our community. Many people around the state believe that their local pond or lake is "spring fed" because they see an upwelling or bubbles rising to the surface. It would seem logical that those bubbles could be a result of a connection to the Floridan aquifer but it is highly unlikely.

That is not to say that "spring fed" ponds and lakes do not exist in the State but just like the elusive Nessie, they are extremely rare. Remember, a spring is an opening in the earth from which ground water flows to the surface forming a natural pool of consistently cool water (Florida Geological Survey, Special Publication No. 52).



There are a variety of explanations for seeing an upwelling or bubbles in pond. The most probable explanation is the movement of ground water through the surficial aquifer system, which is under unconfined or water-table conditions practically everywhere. Most of the water that enters the system moves quickly along short flowpaths and discharges to surface water bodies including ponds and lakes (United States Geological Survey, Groundwater Atlas, HA 730-G). Furthermore, because of this groundwater influence, your pond's water level may fluctuate as the groundwater rises and falls seasonally. Other possible explanations include air pockets in the sediment, submerged plants releasing oxygen, decomposition of plant material, or maybe, just maybe...

## ASK AAP- Why do I still get a algal bloom if I've worked so hard to clean my pond?

By: Jennifer Kabat, USF Graduate Student Volunteer

Is your neighborhood stormwater pond covered in a thick film of green algae? This could be a result of atmospheric deposition directly into your pond through rainfall or dust particles. Ponds naturally have specific levels of nitrogen that they can effectively maintain. When the nitrogen levels increase beyond this point, algae proliferate from the overabundance of food, resulting in a film of algae which excludes light to the vegetation below. Fish and animals in the water are also affected and often killed when the algae die and consume oxygen in their wake. According to the Tampa Bay Estuary Program (TBEP), 1,180 tons of nitrogen from the atmosphere is deposited directly into Tampa Bay each year and 7,000 tons fall onto the land, some of which eventually washes into the bay.



Well how can I help to reduce this atmospheric deposition and keep our waterways 'healthy'? Atmospheric deposition is the result of many contributing factors. Stationary sources such as electrical plants contribute about 70 percent of the nitrogen found in the atmosphere and mobile sources including automobiles, boats, and trucks factor in a little more than 30 percent of the nitrogen. It is more difficult to determine the impact of area sources such as dry cleaners, gas stations, forest fires, and construction machine emissions since they are less easily controlled and also more dispersed. Each of these types of pollution sources are emitted into the air and carried to the surrounding areas by the wind and later deposited onto the land or water by rain or dust. The impact from stationary sources continues to be reduced by implementing control devices which reduce the amount of pollutants released into the atmosphere. Mobile impacts can be controlled by decreasing the amount of automotive travel, maintaining engine servicing and pollution control equipment. Area sources are best controlled by local enforcement of land and air quality. The Nitrogen Management Consortium was created by the TBEP in October 1996 to help reduce the amount of nitrogen loading to Tampa Bay. Some projects include protecting environmentally important lands, improving stormwater treatment, reducing emissions and wastewater, implementing best management practices (BMPs), and educating and involving the public in pollution reduction. Energy conservation has also been a major step toward reducing the amount of atmospheric deposition and is a way each of us can contribute to better water quality.

Nitrogen levels in the bay have been reduced in the past couple decades, but they still remain four times the amount seen 50 years ago. There is still a need for management plans and practices, but the best way to reduce atmospheric deposition is to reduce the source of the pollutant.

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## WHAT'S IN THAT WATER ANYWAY? THAT'S A GOOD QUESTION

Every wonder exactly what's in the water that's in your pond? Well we do!!! And we're hoping you do as well. The program is actively looking for additional volunteers to conduct water quality testing on their ponds. Volunteers will be trained in proper testing protocols and provided with all necessary materials. Each volunteer is then asked to sample their pond once a month. Once you've conducted your testing you can simply visit the Adopt A Pond website and submit the data online. We couldn't make it any easier. Once enough groups have been trained, and a large enough data set has been gathered, pond groups will be able to view all of the data regarding their ponds through an interactive online format.

If you feel that you may be interested in joining our elite group of AAP Volunteers, feel free to send us an email at [mickelj@hillsboroughcounty.org](mailto:mickelj@hillsboroughcounty.org) with your name, address, pond group ID and pond name. Someone with the program will contact you to explain the requirements in further detail and to schedule a training date for you and our staff.

Hillsborough County Board of County Commissioners  
An Affirmative Action-Equal Opportunity Employer

## On Our Pond

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## VISIT THESE WEBSITES

LAKEWATCH: <http://lakewatch.ifas.ufl.edu/>

Extension Service: <http://hillsborough.extension.ufl.edu/>

Hillsborough County Watershed Atlas: <http://www.hillsborough.wateratlas.org>

Adopt-A-Pond Webpages: <http://www.hillsborough.wateratlas.usf.edu/adopt/>

Southwest Florida Water Management District: <http://www.watermatters.org>

Frog Listening Network: <http://www.seaworld.org/fln/in.htm>

Schoolyard Treefrog Monitoring Project: <http://cars.er.usgs.gov/Education/>

## POND SAMPLING RESULTS- Turbidity

Thanks to pond sampling volunteer, Mr. Sacarello, we can see a trend from the winter of 2004 to the winter of 2005 for several parameters including turbidity/water clarity and air temperature. Notice that water clarity for Spanish Lake tends to drop in the winter months. This could be the result of several factors but Mr. Sacarello observed Tilapia stirring up sediment. According to the Florida Fish and Wildlife Conservation Commission, Tilapia feed primarily on plankton and small organisms living in or on bottom detritus and male Tilapia, in preparation for the spring breeding season, will dig large circular nests with their mouths in shallow water. So, should we solely blame the Tilapia - not necessarily, but thanks to a perceptive volunteer, we can make connections between observations and data collection. Mr. Sacarello also tested for pH and dissolved oxygen but there were no obvious trends or abnormalities. This year, let's go for a complete year of samples from everyone. If you're a volunteer, please try to get results in to us on time. We're off to a good start. If you haven't already, try our new online reporting at our website. Without data, there's no point in the sampling program.

