

On Our Pond

A NEWSLETTER FOR CLEANER WATER & BETTER
AQUATIC ENVIRONMENTS IN HILLSBOROUGH COUNTY



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Benefits of Submerged Vegetation

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On Our Pond

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

The Bright Side of Florida's Drought

Reprinted from the Florida *LAKEWATCH* Newsletter, Vol 56, 2012

A drawdown is a lake restoration technique that involves a periodic “dewatering” of a lake, whereby approximately 45% or more of the lakebed is exposed to the sun and air for a prolonged length of time.

Drawdowns are used by lake managers as an especially effective way to consolidate and compact organic sediments in a lakebed. The newly hardened lake bottom makes a good substrate for macroinvertebrates and for fish to lay their eggs. These dry periods can also help to stimulate the growth of aquatic plants once the lake waters return, creating ideal fish habitat. Fisheries biologists are especially fond of drawdowns as it is a proven technique for increasing the numbers and biomass of sport fish once the lake returns to its “normal” level.



LAKEWATCH volunteer Del Suggs on Lake Minnehaha in Leon County can no longer take samples from his “lake.”

So how do scientists and lake managers know about drawdowns? They’ve learned from the best example of all - mother nature.

Geological studies of lakes tell us that drought events, in conjunction with periodic flooding, serve as nature’s way of ridding lakes of the detritus and excess muck that builds up over the years. Restrictions placed on many lakes for flood control have in some instances accelerated this build-up of material. Without a man-made drawdown every so often, the muck buildup can be problematic - even to the point of causing berms to form along a lakeshore.

The lesson here? While this latest natural drawdown (a.k.a. drought) can be frustrating for lake residents and water enthusiasts, it’s all part of nature’s own management plan.

2013 Calendar Photo Contest

Get your camera ready, because it’s calendar photo submission time! We’re working on creating the 2013 Stormwater Environmental Programs Calendar and need your help.

Each year, we collect photos from our program participants showing the natural beauty of their lake, pond, or stream. Once compiled, 12 photos will be selected and included in the 2013 calendar.

To participate in this contest, e-mail your high resolution, 300 dpi or greater, digital photos to aragonj@hillsboroughcounty.org. All photos must be taken of waterbodies in Hillsborough County. **Photos must be received by August 17th.** If your photo is selected for the calendar, we’ll notify you by e-mail. Submitted photos may also be used in future publications.

We look forward to seeing the variety of natural waterscapes in our area, showcasing the great work you all have put into them.



Benefits of Submerged Vegetation

Are you lucky enough to have plants growing underwater in your pond or lake? These underwater plants (a.k.a. submerged aquatic vegetation or SAV) are very important for the many benefits they provide, including habitat for wildlife, soil stabilization, and water filtration. They can also be seen as an indicator of the health of a waterbody.

Habitat

A variety of animals depend on SAV at some point in their lives. Several species of fish use the vegetation to find food, for nesting, and for shelter from predators. Some examples of fish that use SAV are minnows, large mouth bass, and bluegill. Birds also wade around in areas with SAV looking for little critters to eat. Animals benefit indirectly through the additional services provided by SAV described below.

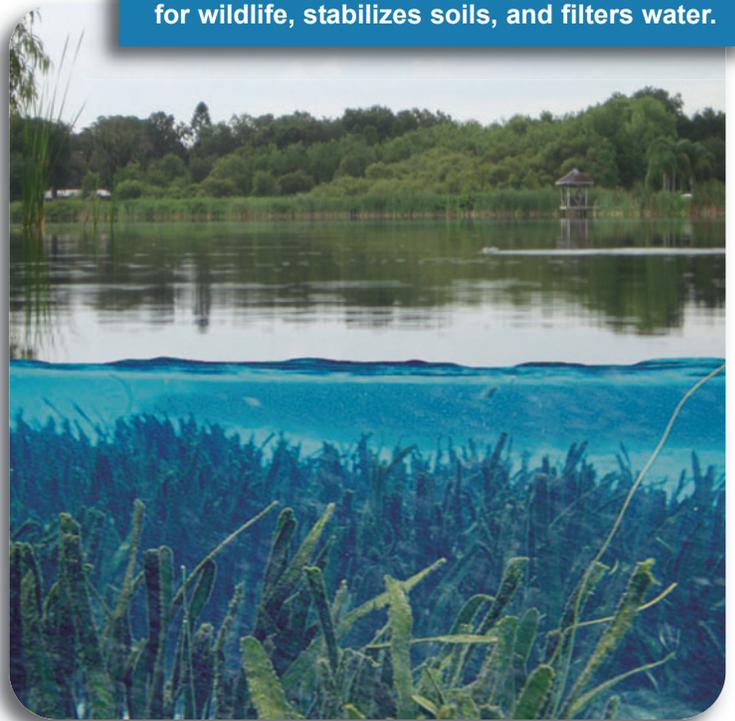
Soil Stabilization

The leaves of SAV help slow wave action and settle sediment/dirt out of the water column. This can lead to improved water clarity. Their roots help hold the soil in place, preventing erosion. A grassy meadow of SAV helps prevent soil from loosening and getting suspended in the water. It also creates an environment where small organisms can flourish.

Filtration

Like other plants, SAV use nutrients (like nitrogen and phosphorus) to grow. They get these nutrients naturally from the water and soil. Nutrients can also be a source of water pollution. When SAV is abundant in a waterbody, these nutrients are absorbed by the plants, leaving less available for algae to grow. SAV also help add oxygen to the water through photosynthesis, which is crucial for fish survival.

Submerged aquatic vegetation provides habitat for wildlife, stabilizes soils, and filters water.



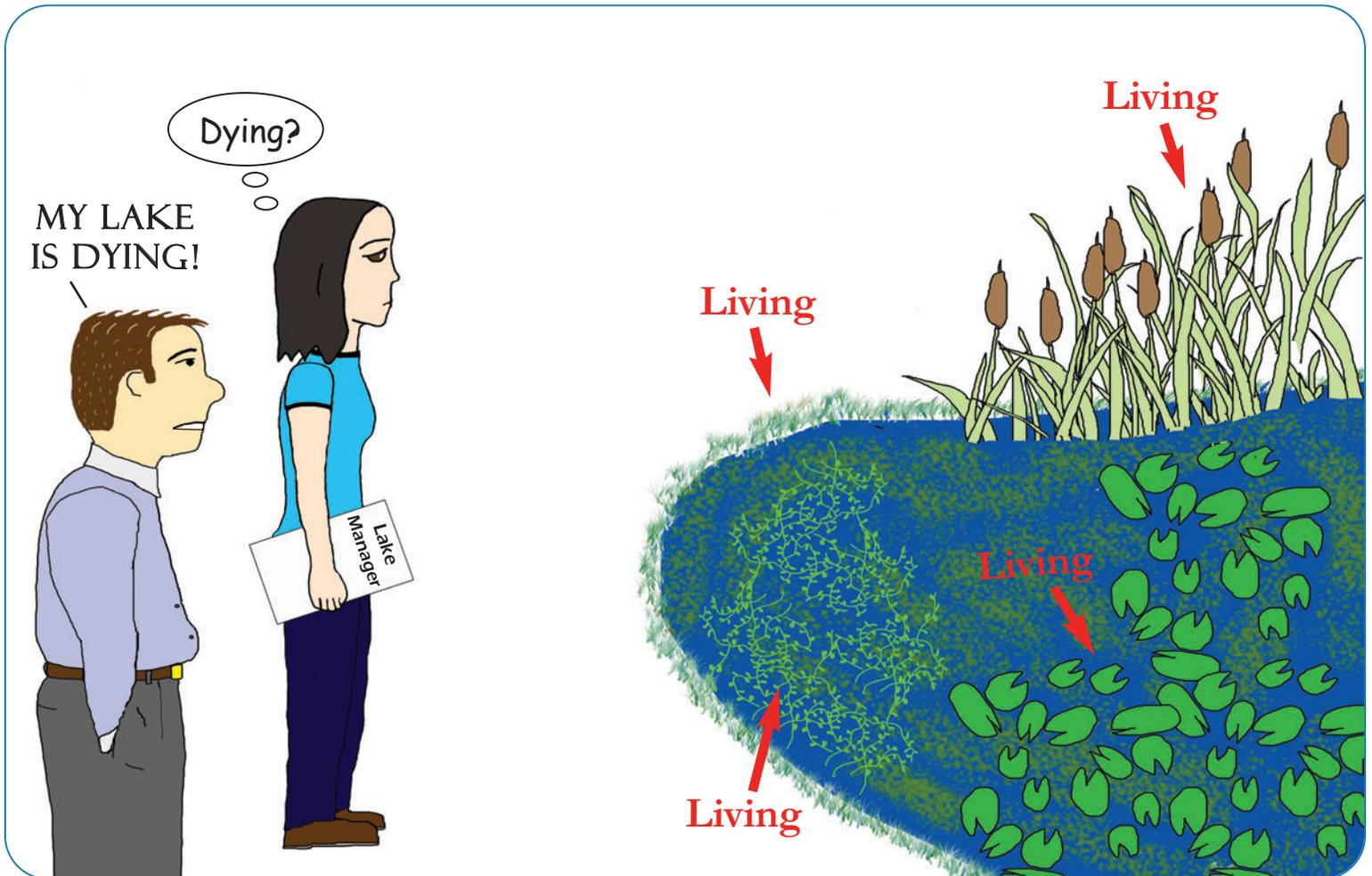
red ludwigia
Ludwigia repens
Photo by Ann Murray
© 2001 University of Florida

Red ludwigia (*Ludwigia repens*) is a type of native submerged aquatic vegetation that is beneficial in a waterbody.

Submerged aquatic vegetation require specific conditions to grow. One thing that can be limited is the amount of sunlight they get. Sunlight needs to be able to get through the water, down to the plants below. Things that may prevent this are the depth of the water, sediments suspended in the water, an algae bloom, chemicals used to shade-out algae, and dense floating vegetation.

Some conditions aren't easily modified in a waterbody. But there are many things you can do to help allow these underwater workhorses to flourish. Add more native SAV to your lake or pond. Prevent nitrogen pollution from fertilizers (see the *Nitrogen Management Over the Summer* article on page 5). Also, use plants to naturally filter pollutants and prevent an algae bloom, rather than treat it with chemicals to get rid of it. These simple actions can help improve the health of local waterbodies.

Ponder This - Terrible Terminology (Part 2)



Pond Plant Spotlight: Soft Rush



Soft rush, *Juncus effusus*, is a clumping plant that grows well along the edges of wet areas like ponds, lakes, and streams. It likes areas with full sun or part shade. Its appearance resembles a grass and it has round stems that taper to a pointed tip. Be careful as you're planting them, though, because the tips can be sharp.

Near the top of each stem, you'll find the flowers. They form small brown clusters which emerge from the side of the stalk. The blooms can be seen most of the year in Florida.

Soft rush provides good habitat for wildlife. Birds like to eat the seeds and the stems provide good hiding spots and nesting areas for animals.

This plant grows to around 3½ feet tall and is great for areas along the pond edge, especially where you're seeing erosion. Its deep roots help hold the soil in place. Soft rush is also a good plant to add to your water garden.

Nitrogen Management Over the Summer

You might be aware that the Environmental Protection Commission of Hillsborough County recently adopted a rule to aid in the management of nitrogen entering our lakes, ponds, and streams. Scientists can actually use the chemical composition of nitrogen found in water ways to trace where it originated from. Studies have shown that residential lawn fertilizer is a significant source of nitrogen pollution in our area.

You might wonder how it gets from your yard to the water. It happens mostly by directly flowing off your yard, but it can also get there from leaching into ground water and from decaying plant material. Obviously, fertilizer left on hard surfaces washes straight into our water ways during the next rain. But if more fertilizer is applied to your plants than can be used by them, then it dissolves into the rain and sprinkler water and flows away too. Even when it gets absorbed into grass, when we mow it, those cut pieces contain nitrogen from the fertilizer. When they decay, the nitrogen is released. Any grass clippings left on hard surfaces or blown into the water will release that nitrogen into the water.

Nitrogen is the single biggest source of problems for Tampa Bay. It causes algae blooms and can shade light from getting to underwater plants. Local governments are trying to help fix the problem, so this rule encourages every homeowner to use fertilizer appropriately. This is especially important in the summer when our tropical climate brings us frequent heavy rains that can wash fertilizer right out of our yards.

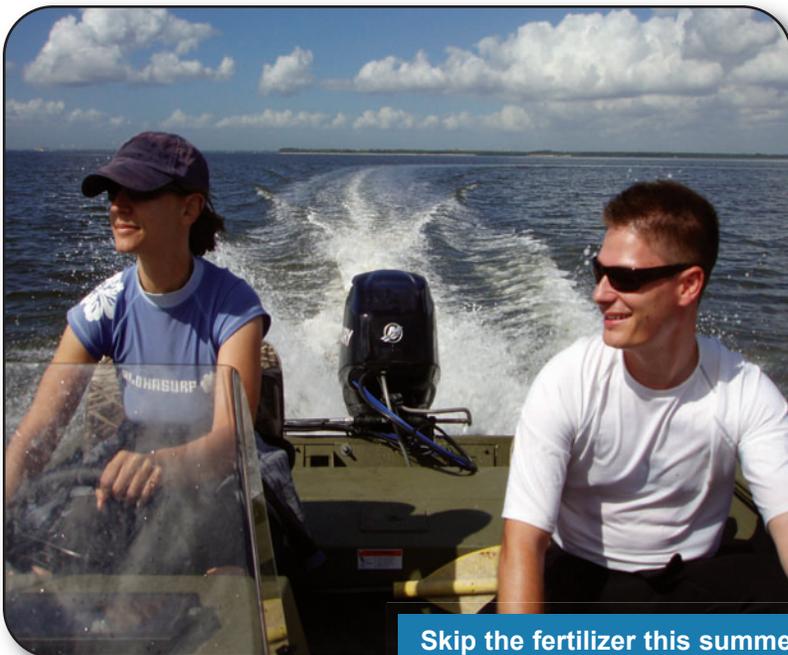
Whether you take care of your own yard or have a service, it's every homeowner's responsibility to make sure that their yard is not a source of nitrogen pollution. The best way to keep nitrogen out of our water ways is not to use it at all. A Florida Friendly yard means you use plants that fit the conditions of your yard and that you use other simple

techniques to ensure that you don't need the nitrogen fertilizer in the first place. There are also nitrogen-free fertilizers available. If you do use nitrogen fertilizer, use slow-release nitrogen products and only use enough to keep your yard at an acceptable condition. Keep it off paved surfaces and make sure your lawn service does as well. The same goes with grass clippings. They can be swept or blown back on the lawn where they will help enrich your soil.

We love Florida for the tropical climate. But a tropical climate means heavy rains in the summer. That's why it's all the more important to avoid using nitrogen fertilizer on your lawn in the summer months. Being smart about your yard means cleaner ponds, lakes, rivers, and bays. To learn more about the Hillsborough County ordinance and Florida Friendly Fertilizing, visit www.epchc.org/Fertilizer.



Nitrogen pollution from fertilizers can cause algae blooms.



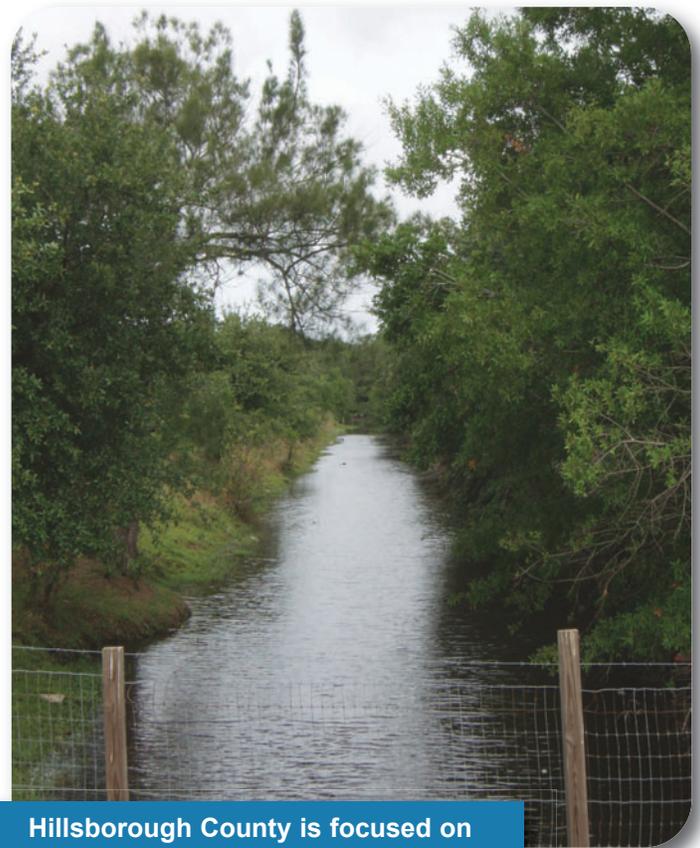
Skip the fertilizer this summer. Get out and enjoy Tampa Bay!

Efforts to Improve Delaney Creek

Delaney Creek quietly drifts across central Hillsborough County. The creek helps to carry stormwater from large portions of Brandon -- past the Brandon Town Center, Clair-Mel City, and industrial Port Sutton. Ultimately, Delaney Creek flows into Tampa Bay.

Historically, Delaney Creek is one of the more polluted waterbodies in our region. In recent decades, pollution from fertilizer production, industrial facilities, and inadequate sewage treatment have been reduced. These efforts led to incredible improvements in water quality during the 1980's. In some instances, pollutants were reduced by 90% or more!

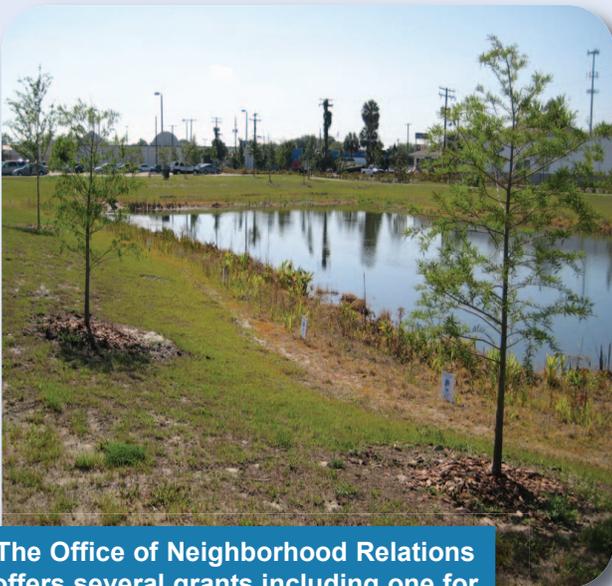
However, Delaney Creek is still impaired. So, for the next few years, our Environmental Team will turn an intense spotlight on the creek in a renewed effort to address water quality. First, we'll conduct a study to identify remaining sources of pollution in the area. Next, we'll develop a new management plan to establish a path forward. Lastly, we can begin projects and put valuable ideas into practice. Hopefully, in the end, this framework will build a useful model for improving Delaney Creek and other waterbodies throughout Hillsborough County. We'll be sure to give you updates as we move along.



Hillsborough County is focused on improving water quality in Delaney Creek.

Grants from the Office of Neighborhood Relations

The Hillsborough County Office of Neighborhood Relations (ONR) is offering several grant opportunities for improving neighborhoods and the environment in unincorporated Hillsborough County. The grants include:



The Office of Neighborhood Relations offers several grants including one for planting trees in community areas.

The **Community Clean-Up Mini-Grant** which provides up to five commercial size dumpsters to neighborhood associations to do clean-up projects to improve the appearance and health of their neighborhoods.

The **Low Volume Irrigation Mini-Grant** which funds the installation or retrofitting to a micro-irrigation system to conserve water in community-maintained areas.

The **Tree Program Mini-Grant** which allows for the purchase of trees to be planted in common areas or in adjacent County right-of-ways which the neighborhood association maintains.

The **Neighborhood Mini-Grant** which is offered annually for projects that will improve their neighborhood. The ONR can provide advice about potential projects under this grant.

These grants are administered while funds are available. For more information, visit www.hillsboroughcounty.org/onr or call Wanda Sloan at (813) 307-3564.

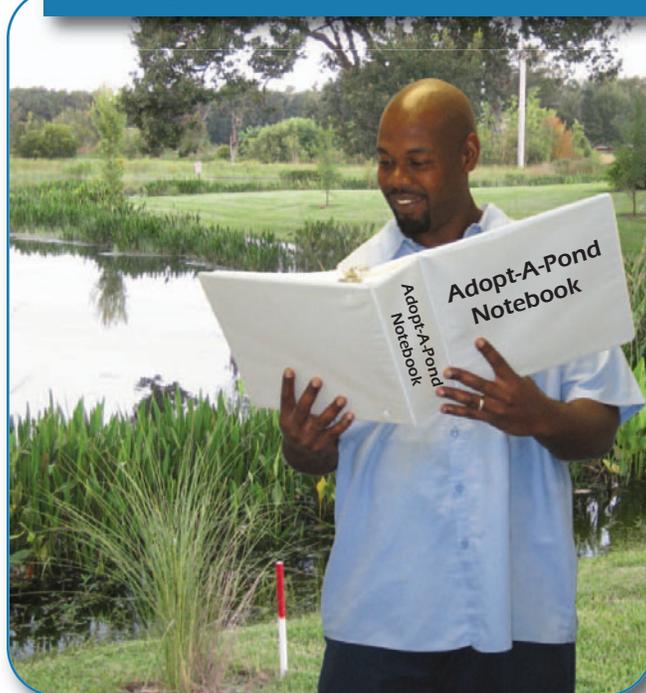
Updates to the Adopt-A-Pond Program

Over the past year, we've been working on updating the Adopt-A-Pond Program to improve how it works.

Last Fall, we revised our Adopt-A-Pond application to better explain the steps involved in the program and to focus more attention on pond management strategies. We also changed the length of time the application remains in effect to three years. After this time, pond groups will still be considered part of the Adopt-A-Pond Program, but their application will be closed. They should be set-up to move forward with their maintenance efforts without additional resources from the program. If the group needs additional plants or other benefits after three years, they will need to reapply and go through the steps as outlined in the application. This change allows us to better evaluate a group's successful completion of the program. As of this time, all open applications older than three years have now been closed.

We also revised the Adopt-A-Pond Notebook. Some of you may remember completing a survey last summer about the notebook. Thanks to all of your responses, we reformatted the notebook to better suit the program goals. We have a new inspection checklist to evaluate ponds and the notebook is set up so pond groups can easily find information on how to improve their pond environment. To be more environmentally friendly, the notebook can now only be found electronically. To view a copy of the revised notebook, visit www.hillsborough.wateratlas.usf.edu/AAP/ and click the Adopt-A-Pond Notebook link.

The Adopt-A-Pond Notebook has been revised!



Pond Walks This Summer

This summer, we'll be scheduling Pond Walks for neighborhood groups living on stormwater ponds in unincorporated Hillsborough County. Pond Walks are an opportunity for you and your neighbors to have a guided tour of your pond with the help of one of our pond experts. The goals of the Pond Walk include identifying plants in and around the pond, discussing pond maintenance activities, and providing information about the Adopt-A-Pond program for groups interested in applying. Pond Walks are scheduled Monday through Thursday. To schedule a Pond Walk for your neighborhood pond, e-mail your request to aragonj@hillsboroughcounty.org.

Attention All Adopt-A-Pond Groups!

Applications for the 2012 Best Maintained Pond Competition will be sent to all Adopt-A-Pond group representatives later this summer. This competition is held each year. Judges from local environmental organizations evaluate participating ponds to determine which one has been maintained the best. Only those ponds that enter the competition will be evaluated, so make sure to submit your completed application once you receive it. The winning pond will receive special recognition, a highlight in this newsletter, and a prize for the pond. More details will be announced later in the summer, but start working on any last minute improvements now to prepare your pond for the competition!



Hillsborough County Board of County Commissioners
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Bats

Bats often get a bad rap, but these mammals are actually very beneficial to have flying around your neighborhood. With mosquito season in full swing, I often look to the sky in the evenings for these flying, mosquito eating machines. According to the Florida Bat Conservancy, a single bat can eat up to 3,000 insects each night. That is a lot of bugs for such a small creature!

Florida bats prefer living in dead trees, spanish moss, dead palm fronds, and caves. Suitable habitat is declining, though, with development and destruction of these areas causing some to seek shelter in man-made structures like buildings.

One way you can help provide a safe place for these animals to live is by installing a bat house in your yard or community area. They'll show their appreciation by eating night-flying bugs in the area.

You can find plans to build your own bat house in your Adopt-A-Pond notebook under the Wildlife section or online on the Florida Bay Conservancy website at www.floridabats.org. There are also retailers that sell already constructed bat houses that just require installation.



Bats are natural mosquito eating machines.