

Hillsborough County



STORMWATER

Management Section

Environmental Education Programs

Adopt-A-Pond, Lake Management, Officer Snook, Pond Walk, Pond Watch, Stream Waterwatch, Storm Drain Marking, Stormwater Ecologist, and Watershed Atlas are partially funded by the Southwest Florida Water Management District, Alafia River, Hillsborough River, and Northwest Hillsborough Basin Boards.



University of Florida LAKEWATCH and **University of South Florida Center for Community Design and Research** work with Hillsborough County on Lake Management.

University of South Florida Center for Community Design and Research works with Hillsborough County on the Watershed Atlas.

Hillsborough Community College Environmental and Technical Program works with Hillsborough County on Stream Waterwatch.



**601 E Kennedy Blvd
23rd floor
Tampa, FL 33602
(813) 272-5912
www.hillsborough.wateratlas.org**



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Dear Citizen:

Thank you for expressing an interest in our environmental programs. We are extremely pleased with the success of these programs and look forward to working with you and your neighborhood.

All of our programs are public-private partnerships assisting neighborhoods and school groups to improve water quality, wildlife habitat, and appearance of lakes, streams, and stormwater ponds. There are no fees or costs required to participate in these programs. In order to qualify for participation, you must simply meet a program's criteria.



Officer Snook

The Officer Snook Water Pollution Prevention Program teaches second grade students in Hillsborough County schools about water pollution and its effects on our water resources. The program aims to help children connect the concept and vocabulary of water pollution with actions they see and take in their daily lives. Presentations are interactive and fun. The program provides educational materials to students and a curriculum guide to teachers for follow-up activities. The program and all materials are provided free of charge.

If you are interested in having the Officer Snook program presented to your classroom or youth organization, make the request on our web site at:

www.hillsborough.wateratlas.org/adopt

Or by phone at (813) 272-5912.

Officer Snook teaches kids to help stop water pollution. He's always a hit when he makes an appearance.





Stormwater Ecologist



Can you tell what's happening here?

This program is designed to give students and teachers the power to make responsible decisions about stormwater pollution prevention and to demonstrate how our actions all play a role in the health of the world around us.

Stormwater Ecologist not only talks about making a difference, we'll actually help you make one with our hands-on and community projects.

This program incorporates aspects of science, politics, and economics, making it appropriate for a wide range of classes. If you're interested in how Stormwater Ecologist can work in your school, call **272-5912**.

Here's what we can offer you:

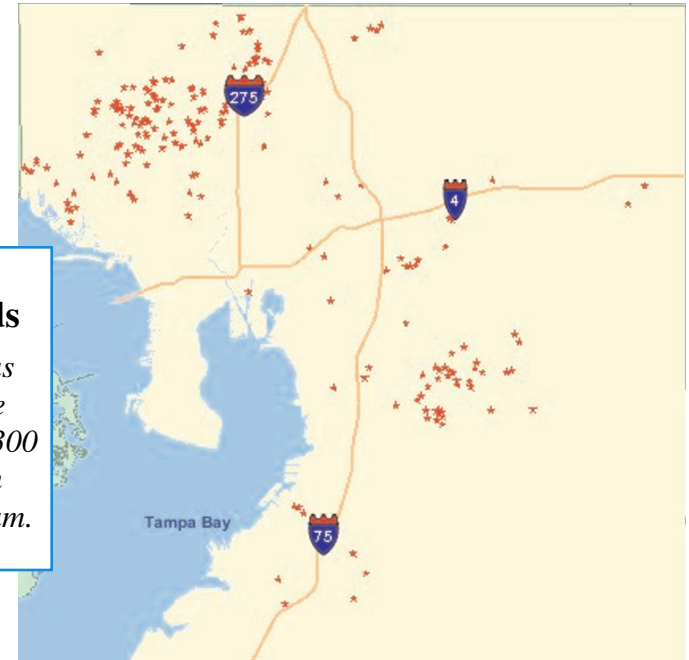
- Interactive presentations on stormwater pollution and ecology using models and games. A perfect one-time event and a great introduction to further study.
- Interpretive walks. Students tour a pond or wetland at the school with an environmental scientist who will identify plants and animals and explain how organisms and processes fit into an ecosystem. A great way to translate classroom concepts to reality.
- For those interested in longer-term field study, *Stormwater Ecologist* works with Adopt-A-Pond to perform stormwater pond restorations and set up pond monitoring programs. Students become real citizen scientists reporting useful data and performing an actual restoration.



Adopt-A-Pond

Did you know that stormwater ponds are an important part of the vast system of pipes, canals, gutters, and ditches that keep our homes and roads from flooding? Not only do they hold water that would otherwise be in our streets, yards, and homes, but they also provide valuable water treatment and groundwater recharge. Properly designed stormwater ponds can mimic natural wetlands, providing habitat for numerous plants and animals.

These necessary facilities can also be excellent amenities for a community, but homeowners are often unprepared for the challenges these highly productive systems present. That is where Adopt-A-Pond comes in. Through our program, you can learn to manage your pond and create a beautiful and functional wetland ecosystem in your own neighborhood—created and managed by you and your neighbors.



A Map of Adopt-A-Ponds
Adopt-A-Pond has been in existence since 1991. Over 300 ponds have been through the program.

Adopt-A-Pond is a volunteer program sponsored by the Stormwater Management Section of the Hillsborough County Public Works Department/Engineering Division and the Northwest Hillsborough, Hillsborough River, and Alafia River Basin Boards of the Southwest Florida Water Management District. We can help you restore and manage your stormwater pond in a healthy and functional way.

You provide the work and we can provide the resources and expertise. Learn to manage a freshwater ecosystem and create a naturally beautiful pond setting while helping to protect our freshwater resources.



You can take a pond that looks like this...covered in algae, with little habitat or treatment...

You get the benefits of

- Increased property value
- Assurance that stormwater structures are functioning properly
- A beautiful community asset that will yield benefits for years to come



*...and turn it into this!
A healthy freshwater wetland!*

Storm Drain Marking

Storm drains are a major source of water pollution. When it rains, gallons of water flow through our streets and yards and into these inlets. From there, it will eventually end up in a body of water, like our ponds, or a lake, river, or bay. As it flows, this water carries pollutants such as oil, fertilizer, sediment, and trash. The Storm Drain Marking Program is an easy way for you to remind people that these drains are not for dumping!

The kits are free to anyone interested in sponsoring an event. You'll get a set of PVC markers, like the one on this page, a tube of special glue to apply them, and door hangers to let everyone know what's going on.

Request a kit on our web site:
www.hillsborough.waterratlas.org/adopt



The weather-resistant markers are easy to apply. Storm drain events are great for kids and the whole family.



Just sweep the area, apply the glue, and stick the marker in place. The bright-colored markers are sure to draw attention.

Pond Walk

Have questions about your pond? Need to get your neighbors together to talk about it? Then you need a pond walk! We'll send a pond expert out to walk around the pond with you and your neighbors and answer questions. The expert can tell you about the plants and animals, the regulations, and the work needed to help you get your pond into top shape.

This free service is available to anyone in Hillsborough County, spring through fall, Tuesdays through Thursdays in the evenings. Walks last approximately one hour. Our volunteer experts are all trained professionals in freshwater wetlands who donate their time to help you better understand your environment.

The only requirement is that you invite as many of your neighbors as you can to make the best use of our experts' time. Pond walks are a great low-commitment way to learn about your pond and to get neighbors interested in taking care of it. Pond walks also make an excellent precursor to applying for Adopt-A-Pond.

Request a pond walk by going online at www.hillsborough.wateratlas.org/adopt or by phone at **272-5912**.



Pond walks are a great way to learn about your pond and generate interest in your community!

Here's what you'll need to undertake an Adopt-A-Pond project:

- **A Group**
Adopting a pond is too much of a job for one person, so the first thing you'll need is a group that is willing to work on it with you.
- **A Coordinator**
To organize the project, communicate with group members, and work with us.
- **Time**
A pond restoration can't be done in a day. Think in terms of months and years.
- **Work**
Pond restoration requires that you and your group be willing to get into the water and brush to clean up, plant, maintain, and monitor the pond for at least three years.

Your pond will also have to meet these criteria:

1. The pond must be owned and maintained by the County or privately owned with one or more drainage easements dedicated to Hillsborough County.
2. No wetland or protected conservation areas are allowed in the program.
3. Adopt-A-Pond may not be used to satisfy permit conditions for the Southwest Florida Water Management District.
4. The pond group must submit an Adopt-A-Pond application and demonstrate a commitment to fully participate in the program and maintain their pond.
5. Access to the pond must be available for County crews and equipment.



Group workdays are a big part of keeping a pond looking good. This pond is well established.

Remember that Adopt-A-Pond is not a one-time fix for your pond. It's a program for people who want to learn how to care for a pond. We can serve as a guide and resource center, but the success of the project is up to you. You are adopting the pond. But with our help, you won't be doing it alone.

This program is the first of its kind in the nation and groundbreaking in its efforts. So if you want to learn how to take charge of your pond, if you want to gain a better understanding of your environment through hands-on experience, or if you simply want to take up a rewarding hobby with benefit to your health and the community, then Adopt-A-Pond is for you.

Don't wait! Get in touch with us now!
www.hillsborough.wateratlas.org/adopt
 (813) 272-5912
 Adopt-A-Pond
 601 E Kennedy Blvd. 23rd Floor
 Tampa, FL 33602



Pond groups bring the neighbors together for a common goal.



Pond Watch

Pond Watch is a watershed education and water quality sampling program in which citizens who live on or around stormwater ponds volunteer to take monthly samples in their pond for a period of one year. Volunteers are trained in proper procedures and good sampling techniques, just like Lake Management volunteers. The data collected through Pond Watch is posted to the Hillsborough County Watershed Atlas.

This data is an important part of our growing library of water quality data that helps inform scientists and decision-makers as we manage our water resources.



Volunteers get to:

Test in the field for:

- Dissolved oxygen
- pH
- Clarity
- Temperature

Take samples for lab analysis of:

- Total nitrogen
- Total phosphorus
- Chlorophyll A

Simply freeze the samples and drop them at a nearby location at your convenience. The University of Florida will pick them up and run the lab analysis.

Watershed Atlas

www.hillsborough.wateratlas.org



Lake & Stream Management

The Hillsborough County Watershed Atlas is an Internet-based water resource information tool. Using Geographic Information System (GIS) technology, users can navigate interactive maps with all kinds of water resource information—just like an atlas in a book, but with much more functionality.

Each water body in the County has its own page featuring pictures, histories, and information for volunteers in that area.

The site also contains water quality data from various sources, including our volunteer programs, graphing and analysis tools for the scientifically interested, educational materials on a variety of subjects, and information on all our programs.

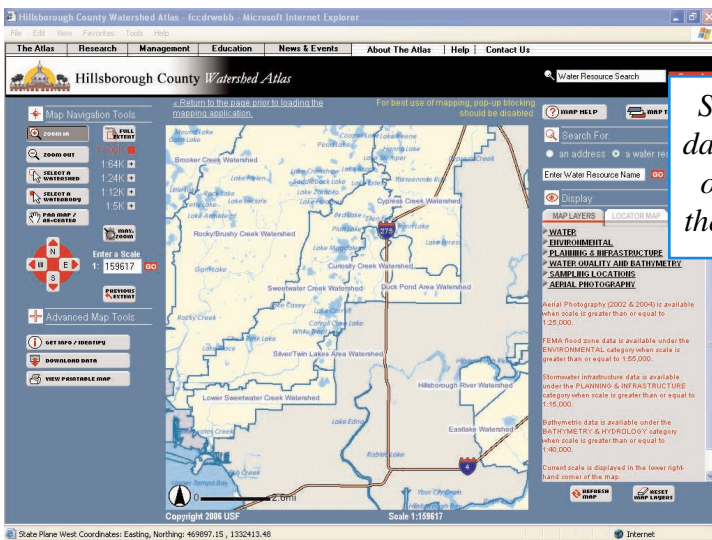
The site is continually updated and improved, so visit often to stay up on the latest water resource information.

The Lake and Stream Management Program is a cooperative program between Hillsborough County and the Southwest Florida Water Management District (SWFWMD). The program incorporates assistance, expertise, and resources from the University of Florida LAKEWATCH, the University of South Florida, and Hillsborough Community College. This program is divided into two tracts (Lake Management and Stream Waterwatch), which are available to all citizens interested in learning about managing or improving our many lakes and streams. For more information about the Lake Management Program or Stream Waterwatch, please contact us at (813) 272-5912.

Lake Management

Hillsborough County has approximately 230 named lakes within its borders. Many of these lakes are in urban and suburban areas with a variety of potential threats to the lake ecosystem and watershed. Most lakes in Hillsborough County can support a diversity of uses, but these uses need to be carefully managed. The Lake Management Program can help lake residents learn about these complex and interesting lake ecosystems through a variety of means, such as teaching citizens how to collect crucial data that helps ensure long-term sustainability of the lake ecosystem. The Lake Management Program consists of several major sections, including:

Investigation & Management Issues: As per the Hillsborough County Public Works Lake Management Program Policy, we can advise and assist citizens with vegetation management, investigate citizen concerns, and provide technical expertise.



See aeriels, plans, data, and pictures of our watersheds at the Watershed Atlas.

Volunteer Water Quality Monitoring: Volunteers are trained through the University of Florida's LAKEWATCH Program to take water quality samples (phosphorus, nitrogen, and chlorophyll) and determine water clarity. Samples are collected and analyzed by the LAKEWATCH Program on a monthly basis. All data is submitted to the Watershed Atlas where it is continually updated, analyzed, and available to the public in several different formats.

Outreach & Education: Our public education effort is a very popular component of the Lake Management Program. We sponsor and provide a variety of programs including the Watershed Atlas, lake walks, stormdrain markers, decals, brochures, and the Lake, Pond, and Stream Seminar. Another component of our outreach effort is the Lake Management Academy, which is a series of bimonthly meetings to educate lake residents on various topics in lake management.

Research Programs: The Lake Management Program has and will continue to support or conduct important research projects such as toxic algae studies, lake assessments, stormwater input studies, paleolimnological studies, and social marketing.



Volunteers learn about their lake and enjoy activities at the annual Lake Day.

Stream Waterwatch



Streams, just like lakes, are important water resources. But like any natural system, they present particular challenges when the surrounding watershed is altered. Stream Waterwatch is a volunteer-based program implemented through Hillsborough Community College and funded by Hillsborough County. Volunteers are trained in the field to take water quality samples, measure field parameters, and collect, sort, and identify macroinvertebrates (bugs and other spineless creatures). Stream Waterwatch volunteer groups typically adopt a 1.5 mile stream segment and conduct a variety of activities, such as:

- Attending a minimum of four stream training classes in the first year
- Taking monthly samples from three sites on the stream
- Measuring field parameters (pH, dissolved oxygen, turbidity, and temperature)
- Conducting quarterly habitat, macroinvertebrate, and stream surveys



Volunteers are trained and participate in stream cleanup and restoration projects.