

# Hillsborough Water Works



*People Programs Planning*

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NEWS IN EDUCATION  
THE TAMPA TRIBUNE  
TBO.COM, KEYWORD: NIE



## What is NIE?

News in Education (NIE) is a cooperative effort between schools and The Tampa Tribune to promote the use of newspapers as an educational resource. As part of our commitment to improving education, NIE, in partnership with WFLA-TV News Channel 8 and TBO.com has expanded to reflect a multimedia strategy.

NIE provides schools with class sets of The Tampa Tribune, plus our award-winning study guides, at no cost to teachers or schools. The Tampa Tribune absorbs all production costs and half the cost of newspapers; the other half of the newspaper cost is paid for through the sponsorships of generous community-minded companies, individuals, foundations and government agencies, such as the Hillsborough County Board of County Commissioners and Hillsborough County Water Resource Services.

The Tampa Tribune and our NIE curricula are rich educational tools, offering teachers and up-to-the-minute, living text and source for countless projects in virtually every content area. Through the generosity of our sponsors, we can deliver Tampa's newspaper and quality curriculum to thousands of students on a daily basis.

For more information about how you can support NIE, call (813) 259-7329 or 1-800-527-2719, e-mail [rlogan@tampatrib.com](mailto:rlogan@tampatrib.com) or log onto TBO.com, Keyword: NIE.

Each activity in this publication is aligned to the Sunshine State Standards. The Sunshine State Standards are a set of statewide academic guidelines that represent the knowledge and skills Florida students will need to achieve in order to succeed in the world of work or college.

This guide incorporates the following Sunshine State Standards: LA.A.1.2-4; LA.A.2.2-4; LA.B.1.2-4; LA.B.2.2-4; LA.C.1.2-4; LA.C.2.2-4; LA.C.3.2-4; LA.D.1.2-4; LA.D.2.2-4; SC.A.1.2-4; SC.B.2.2-4; SC.D.1.2-4; SC.D.2.2-4; SC.F.1.2-4; SC.G.1.2-4; SC.G.2.2-4; SC.H.3.2-4; SC.H.1.2-2; SS.A.6.2-4; SS.B.2.2-4; SS.C.2.2-4; SS.C.2.2-4; SS.D.1.2-4

This publication was written, researched and designed by The Tampa Tribune's NIE Department and Hillsborough County Water Resource Services:

- Rita Logan, educational specialist
- Tim Lancaster, graphic designer
- Michelle Van Dyke, WRS, Community Relations Coordinator

  
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April 2009

Dear Friends and Neighbors:

The Hillsborough County Board of County Commissioners takes great pride in introducing Hillsborough County Water Resource Services' annual News in Education publication. We are honored to share with you stories about the people, programs, and planning that makes Hillsborough County water work.

For the past 10 years, Hillsborough County, along with the State of Florida and other local governments throughout Florida, has designated the month of April as "Water Conservation Month." The objective is to increase awareness and promote the efficient use of our state's most precious and limited resource, water.

This year that message has particular significance for our region since the Southwest Florida Water Management District has declared that we are experiencing a critical water shortage.

Environmental issues are of extreme importance to everyone in Hillsborough County. Water conservation in particular is important to your County leaders and is a key element in our strategic planning.

Water Resource Services promotes conservation through a wide variety of educational programs, community outreach, water restriction enforcement, partnerships with other agencies, construction of reclaimed water systems, and publications such as this one.

The good news is our conservation efforts are working. Hillsborough County, in collaboration with other entities, has resulted in a savings of over 32 million gallons of water per day.

Every business, resident and visitor can make a difference in conserving our vital water resources. Together, we can ensure that our county will persevere even in times of drought.

Sincerely,

Ken Hagan, Chairman  
 Board of County Commissioners







# Drought Reaches Record Levels

**The People of Hillsborough County Must Do Their Part To Conserve.**

Hillsborough County is experiencing what may be one of the worst droughts in many decades. Tampa Bay Water's 15-billion-gallon reservoir is empty, rivers and lakes are at critically low levels, the Floridan Aquifer level is below normal, and governing bodies are taking drastic actions. The Southwest Florida Water Management District's 16-county region is 27 inches short of expected rainfall for the past three years. If that rain would have fallen, it would have generated 500 billion gallons of water in Hillsborough County alone!

Despite this dire situation, it is important to recognize that Hillsborough County Water Resource Services is taking aggressive action to save water. Hillsborough County has worked for years to educate the public on the importance of conserving water and our citizens are making a difference – in 2008, our customers reduced their daily consumption by approximately 10 gallons per person.

Ten gallons per person may not sound like much, but when you add it up, that's two billion gallons last year alone - enough water to fill up Raymond James Stadium!

The good news is that there are people all over Hillsborough County who are working to conserve water resources, plan for the future, and preserve the quality of life that makes the Tampa Bay area so unique. In the following pages, we are shining a light on the people, programs and planning that make Hillsborough Water Work.

In this insert you will not only learn helpful tips for your own personal water use, but you will be introduced to some of the people in your community who are doing their part to manage our most valuable natural resource: water. Also, we're once again pleased to include a special kids section with information and activities created especially for our younger readers.

## Know Your Source, Know Your Rules

The Southwest Florida Water Management District governing board's recent decision to move to a "Critical" water shortage designation in some areas has resulted in the most stringent water restrictions ever for Hillsborough County.

The rules are also complex. The key is to know your water source.

At least through June 30, residents of Hillsborough County have different rules, depending on whether they get their water from the county, the cities or other utilities, a private well or another irrigation source such as a pond.

For detailed information and links to fact sheets and Web sites for SWFWMD and the City of Tampa, visit [www.hillsboroughcounty.org/](http://www.hillsboroughcounty.org/). Residents may also get additional information from the Southwest Florida Water Management District or their local utility.

Reclaimed water users are exempt from the lawn watering restrictions. However, these customers are reminded to use only what they need.

### Here are the highlights:

Hillsborough County Water Resource Services customers – Tighter restrictions on lawn watering, hand watering and drip irrigation. Decorative fountains are prohibited. Car washing is prohibited unless done at a commercial car wash. Charity car washes are prohibited. Pressure washing by a commercial company is allowed for health and safety reasons or in preparation for painting.

Residents of unincorporated Hillsborough County who get their water from private wells, or who use wells or another alternative (such as a pond) to irrigate their lawns – Longer periods of time are allowed for watering. Car washing is allowed. Pressure washing is allowed for

health and safety reasons and in preparation for painting. Decorative fountains are allowed four hours a day.

Residents of unincorporated Hillsborough County who receive their water from the City of Tampa – Follow City of Tampa restrictions.

Residents may get additional information from the Southwest Florida Water Management District or their local utility.



# Hillsborough County Teaches Kids to Conserve

**King's Kids Christian Academy students experience hands-on learning for water conservation.**

What do a fishing pole, a ticket pad and a bathrobe have in common? They are all teaching props for students in Ms. Loretta Joseph's class at the King's Kids Christian Academy.

Students are learning about water conservation from Gerard Watson, the Senior Water Conservation Inspector for Hillsborough County Water Resource Services. Watson visits classrooms across the county to spread the word about responsible water consumption habits.

To get the kids involved, three students use props in a fun role-playing game. There is a fisherman, a water manager, and a person in a bathrobe. Watson has the class identify each person and how they interact with water.

"He's a fisherman!" one student shouts with excitement.

"Very good, and how does he interact with water?" Watson asks. The students identify the lakes, ocean and rivers as places to go fishing.

"She's gonna take a bath!" students say about the young lady wearing a bathrobe and proudly washing her back with a sponge.

"That's right, and how can she conserve water in the bathroom?" Watson replies.

The students identify several things she can do: turn off the water while she's brushing her teeth, and take a short shower instead of a bath.

For the third student, holding a ticket pad and a wearing a badge, the students are perplexed.

"Who's that?" they ask.

"She's a water conservation enforcement officer, otherwise known as a water cop," responds Watson.

"For real? You can get a ticket for wasting water?? No way!" The kids are flabbergasted that anyone could get a ticket for such a thing.

They are not alone. Many Hillsborough County residents do not realize that the County actively enforces its water restrictions. Anyone who is caught breaking water rules can be fined. The first fine is \$100 but can go up to \$500 for repeat violations. Those who don't pay are summoned to appear before a code enforcement special magistrate and face the possibility of a lien being placed against their property.

Following the role-playing scenario, the kids watch a cartoon with various depictions of people wasting water.



"He's wasting water, right there in the tub!" one student shouts out as the video depicts a man luxuriously lounging in an overflowing tub of water.

After the video is complete, Watson asks the kids to identify examples of people wasting water.

The entire classroom is full of eagerly raised hands. The children happily list the various infractions shown on the video and are proud of themselves for getting so many answers correct.

The presentation ends and Watson gives the teacher kits of information to hand out to the students. Hillsborough County Water Resource

Services educates children through this program and other in-school outreach programs throughout the county.

In a time of extreme drought, water conservation is more important than ever. Through childhood education, Hillsborough County Water Resource Services hopes to create a new generation of informed citizens who grow up with the understanding that water conservation is a duty that we all share.

## Water is the Fuel that Drives our Economic Engine of Tourism

**Thanks in part to our tourism dollars, Florida residents do not pay income tax.**

Paul Catoe spends most of his time trying to bring visitors to Hillsborough County. He is the President and Chief Executive Officer of Tampa Bay & Company, formerly known as the Tampa Bay Convention & Visitors Bureau

"In every sales pitch I make, I talk about water. I talk about the waterfront convention center, and how Tampa Bay is a waterfront destination. Water is the very essence of Florida."

The meeting and convention market is big business — a \$103 billion industry.

Catoe and his team vie for business with the hundreds of other convention centers across America. What makes the Tampa Bay area unique? Water.

"We promote all things you can do on the water: fishing, pleasure boating, and excursions," explains Catoe.



The natural beauty and abundant wildlife living on the Hillsborough and Alafia rivers are a huge attraction for tourists. Many visitors have never seen an alligator or a snake, so the flora and fauna of the river are a big draw for our area.

About two-thirds of Catoe's business is devoted toward meetings and conventions. He typically books meetings for large groups, which belong to associations and need a place to hold their annual meeting. The other third of his business is geared toward leisure activity. He brings people here to see Busch Gardens, to tour the rivers, or to go to MOSI (the Museum of Science & Industry).

"Florida would not be the tourist destination that it is if we didn't have all the water to enjoy," says Catoe, adding that water also regulates our temperature by keeping us warm in the winter and cool in the summer.

Catoe goes on to explain that without the tourism industry, Florida would be a very different place. "Without tourism, we

**The tourism industry has an economic impact of about \$3.2 billion in Florida. We have more than 17 million visitors visiting Tampa and Hillsborough county every year.**

might be paying a state income tax," he points out.

Why? Because when visitors come to our state they spend a lot of money. A portion of that money feeds our state's budget. The money has to come from somewhere. Drawing revenue from sales tax allows our state to avoid charging residents an income tax.

"People come from all over the country and all over the world to experience Florida's beauty, and a lot of that beauty comes from our water," Catoe adds. "It is so critical for us to protect this resource. Our very livelihood depends on it."

# Special Kids Section

April Is Water  
Conservation Month!

## Why Conserve Water?

April is celebrated across the state of Florida, and right here in Hillsborough County, as Water Conservation Month. Our current drought has called attention to the need to conserve, but it's important to use water wisely all year 'round. But why, especially when it seems like there's plenty to go around?

After all, water is the most common substance on our planet, and it comes in all three forms: liquid, solid and gas. Turn on the tap or the hose, and water pours out. Peek at our planet from space, and there's so much water that Earth looks like a big, blue marble. Get caught in one of Florida's summer afternoon thunderstorms, and watch how much water rushes down the gutters and into stormdrains.

And water is cheap, too. Buy a can of soda from a vending machine, and you'll spend at least 50 cents. Compared to that, a gallon of tap water costs about half a penny!

### WATER FACT

What would happen if we turned on our garden hose or kitchen faucet and nothing came out? Sometimes, we forget how important water is for everything we do. In fact, water is needed for all life to exist on Earth.

### So what's the big deal?

The reality is, there's a limited amount of clean, fresh water in our world that's available for us to use for drinking and our other needs. In fact, 97 percent of the Earth's water is saltwater. Of the remaining 3 percent that is fresh water, two-thirds is frozen, locked in the polar ice caps.

And, you can't make more water. Despite stories you might hear about "rain dances," or special chemicals that are used to "seed" clouds to try and make it rain, there is no more water on our planet than when it was formed. Our drinking water follows an endless cycle that begins when it rains, and starts all over again when the water is evaporated back into the clouds.

Water is the essence of life. Human beings can't survive longer than two to four days without it. Two-thirds of our bodies are composed of water. Water carries oxygen and nutrients through our bloodstream, helps in food digestion, and transmits chemicals to our brain that help us think and feel.

We use water to drink, to bathe, to raise and prepare our food, to clean, to water plants, to play in, to cool and heat buildings, to maintain our environment, and to manufacture the clothes, products and other goods we use every day. Even Mother Earth uses water to regulate our planet's temperature.

**So why conserve?**  
**Because every drop counts – even when we're not in a drought!**

### WATER FACT

The same amount of water exists today as there was billions of years ago. In fact, the water you bathed in last night may once have been a drink for a dinosaur!



# Rain, Rain – Please Don't Go Away!

AND COME AGAIN ANOTHER DAY, TOO!

Florida seems to have so much fresh water. You never have to go very far to find a pond, stream, lake or a river. So why is our area considered to be in a drought?

**Q** What is a drought?

**A** A prolonged period of dry weather because of a lack of rain.

**Q** How can we be in a drought when the rainfall totals in the weather section of the newspaper don't seem to be that far below normal?

**A** Rainfall varies from location to location. The data from the rain gauge at Tampa International Airport, which is published daily in the newspaper and other places, is only one measurement and does not represent the larger regional rainfall patterns of west-central Florida.

To get a true picture of the drought, you have to look at our region as a whole. The Southwest Florida Water Management District is a state agency which watches over water resources in 16 counties. It monitors more than 130 rainfall gauges throughout its 16-county area. The four central counties in the district (Pinellas, Pasco, Hillsborough, and Polk) received an average of 45.97 inches during 2008, compared to the region's historical average of 52.78 inches. When looking over the last three years, the 16-county district has accumulated a rainfall deficit of 27 inches.

**Q** What happens in a drought?

**A** The impacts of this regional deficit are seen in our water bodies. For example, the Hillsborough and Alafia rivers, two essential water supply sources for the region, are critically low. All 16 counties within the district are experiencing below-normal groundwater conditions and all of the major rivers are experiencing extremely low flows. The entire region depends on these highly impacted surface water and groundwater sources for water supply. Also, if wellfields pump too much water in order to meet customer demand, that can cause lake levels to lower even further, wetlands can dry up, and salt water can find its way into parts of the aquifer and wells. Once saltwater intrusion occurs, the damage is permanent and the well or that part of the aquifer can no longer be used as a source of fresh water.

**Q** When the summer thunderstorms start, does that mean our drought is over?

**A** Not necessarily. The rainy season runs mid-June through September, but for the past three years, we haven't gotten the amount of rain we normally expect. That means the water supply starts the dry season, October through June, at a disadvantage.

**Q** Would a hurricane or tropical storm help?

**A** Big storms often bring a lot of rain – but they also cause a lot of damage! And all that rain might help rivers and lakes, but most of it falls so hard and so fast that it causes flooding in areas where you don't want it, and much of the water runs off before soaking into the ground and the aquifer. A long, slow, steady rain – the kind that makes you want to stay indoors and read a book or use the computer – is the best kind.

**Q** Is there anything that can be done to help the rain?

**A** Hillsborough County Water Resource Services believes it's important to conserve water all year 'round, so watering rules – like when you can water your lawn – have been in place for many years.

SWFWMD and Tampa Bay Water, the region's wholesale water supplier, also have plans which they activate in a drought. There are four levels of drought: moderate, severe, extreme and critical. Each phase has specific steps which county and city governments and utilities are required to take to limit demand and help protect our environment.

**Q** What can I do?

**A** Think at the sink – be aware of how much water you are using and what you can do to save it. Conserve using the tips contained in this publication. It's easy and simple, and it only takes a little effort to save a lot of water.

**Q** Are there things I should not do during a drought?

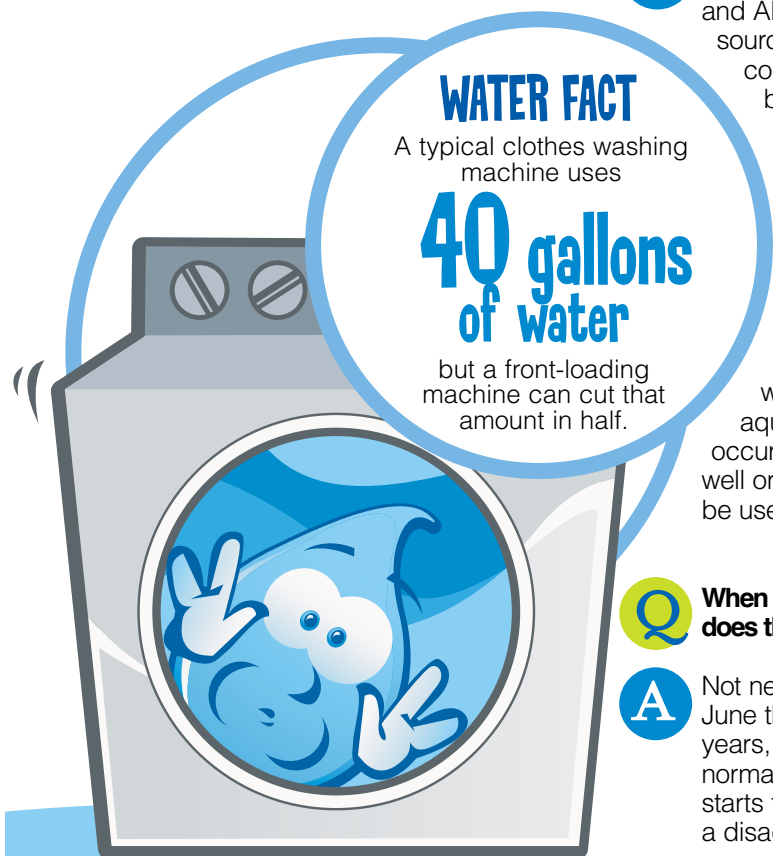
**A** We're sorry, but a drought cannot be used as an excuse not to take your bath!

## WATER FACT

A typical clothes washing machine uses

**40 gallons of water**

but a front-loading machine can cut that amount in half.



# WORD SEARCH

Find these words  
in the puzzle:

- |                    |                |
|--------------------|----------------|
| Conservation       | Groundwater    |
| Drought            | Precipitation  |
| Evapotranspiration | Water supplier |
| Freshwater         | Surface water  |
| Hydrologic cycle   | Potable water  |
| Pollution          | Percolation    |
| Stormwater runoff  | Aquifer        |

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O R V V L R M Q N H N Z R G  
P R E C I P I T A T I O N G

# Every drop counts!

## Water Conservation for Kids

Imagine a gallon milk jug. Now, think about 94 gallon jugs. That's how much water the average person who lives in Hillsborough County uses every single day!

It's important to have good water-saving habits. You and your family can make a big difference by conserving water at home. Pay attention to how much water you use, and how much is wasted. Saving water can be as easy as turning off the faucet!

### Here are a few ideas to get you started:

- Turn off the tap when you're brushing your teeth or washing your hands. Turn it back on to rinse.
- Take shorter showers. Make it a game. Keep an egg timer in the bathroom and see who can get their showers down to a few minutes and still get clean.
- Put squashed bugs in a trash can instead of flushing them down a toilet.
- Is it time to wash the dog? Put a nozzle on the end of the hose; fill a bucket with soapy water, and start scrubbing – over the grass, not the concrete.
- Put a stopper in the sink when it's time to wash the dishes instead of letting the water run down the drain.
- Impress your mom or dad and learn how to read the water meter. If it's moving when no one is using water, there is a leak.
- Pay attention to the sprinklers and make sure water isn't running down the driveway or sidewalk.
- Never walk away from a faucet while it is on.



# WATERY WORDS

Water supply and conservation, like any industry, have their own vocabulary. Here are some words that will make you water-wise!

**Conservation** – to use carefully; to use only what you need without wasting.

**Drought** – a prolonged period with little or no rain.

**Evapotranspiration** – loss of water from the soil through evaporation and transpiration from plant materials growing thereon.

**Freshwater** – clean water that can be used for a human water supply.

**Hydrologic cycle** – the endless cycle of water in which nature moves water through the environment.

**Pollution** – when substances are present that cause harm to the environment.

**Groundwater** – water beneath the surface of the ground.

**Precipitation** – water that falls from the atmosphere in the form of rain, snow, sleet or hail.

**Water supplier** – a government or private utility that provides water to homes, businesses and others.

**Surface water** – water that can be seen on the Earth's surface, such as in rivers, streams, lakes and reservoirs.

**Potable water** – clean drinking water.

**Percolation** – the process of a liquid seeping into the ground.

**Stormwater runoff** – extra rainwater that does not soak into the ground.

**Aquifer** – a sponge-like underground layer of limestone or rock that can hold and release water.

# PROVIDING WATER IS HARD WORK

We often take water for granted until we're told that it's necessary to use less of it. Knowing what it takes to get that water to your house and school might make you appreciate the resource even more.

If your tap water comes from a public utility like Hillsborough County Water Resource Services, the process of turning "raw" water into drinking water delivered right to your home is like a gigantic puzzle that includes such pieces as wellfields, surface water, pipelines, treatment plants and more.

Hillsborough County is one of six local governments – the others are Pinellas County, Pasco County, and the cities of Tampa, St. Petersburg and New Port Richey – which belong to a regional water supply system run by an agency called Tampa Bay Water. Tampa Bay Water makes sure that these six government's water resources are being used wisely and shared fairly by everyone.

In Hillsborough County, Tampa Bay Water's sources of drinking water include "groundwater" from wells that are located in several places around our area, and "surface water" from the Tampa Bypass Canal, the Alafia and Hillsborough rivers, and even water from Tampa Bay itself. If your tap water is provided through this regional system, the exact source of the water you are drinking depends on where you live, the season, customer demand, rainfall, and other factors. You actually might even be drinking a mix of different kinds of water!

Wherever it starts from, the water travels through large pipelines to each utility's water treatment plant. Some utilities may have one large plant that treats water for all of their customers. Hillsborough County Water Resource Services has four major water treatment plants - two in the north part of the county, and two in the south part of the county. At these plants, disinfecting agents are added to the water to make it safe to drink, and fluoride also is added to help keep our teeth strong and healthy.

Depending on how much water that customers are using at the time, the treated water may be temporarily stored in huge tanks, or pumped directly into what is called the distribution system. The pipelines get smaller and smaller as they come closer to houses, schools, stores, offices and other buildings. Eventually, the line serving a particular structure will pass through a meter that reads how much water the customer is using, then into the plumbing system of the house or building, and presto! The water comes out of the tap!

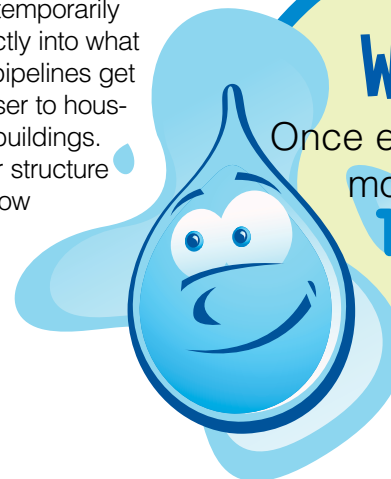
**So, the next time you turn on the faucet, remember the hard work it took to get the water there - yet another good reason to conserve and appreciate this precious resource.**

## WATER FACT

Water is the most common substance on Earth! Most of the Earth's surface is covered with water. The air we breathe contains water. Even our bodies contain large amounts of water. Humans can live longer without food than they can live without water.

## WATER FACT

Once evaporated, a water molecule spends **10 days** in the air.





## Hillsborough Pair Become Garden Experts Thanks To Extension Service Classes

Have you ever been tempted by the vast array of colorful flowers at your local home improvement store? Have you spent a fortune on new plants only to bring them home and find them dead in a few weeks? You are not alone. The truth is that some plants survive better than others in Florida gardens. The trick is to know what to plant where and when!

"Right plant, right place," says Carolyn Roberts, a recently certified Master Gardener and resident of Riverview. Roberts formerly lived in the United Kingdom and brought her passion for gardening to Florida, only to find that the plants she had at home don't thrive here.

Many residents move to Florida with dreams of luscious Florida gardens that don't quite pan out as expected.

What's the solution? Free gardening classes provided by the Hillsborough County Extension Service.

"The Extension Service is a wonderful resource," says Carolyn's husband, Steven Roberts. "We loved their classes; we've learned so much. Whenever we have a problem or a question, we just call and ask." The couple have even taken soil samples to the Extension office to be tested – for \$2 per sample.

Tampa and Hillsborough County residents have access to a variety of home gardening educational seminars through public libraries and the Extension office. The Roberts' took several classes including a rain barrel workshop, a Water-Wise program, and a composting class.

"It's important to get the water where it needs to be," notes Lynn Barber of the Florida Yards & Neighborhoods program. "In our Water-Wise program, we teach gardeners water-saving tips including micro-irrigation."

A micro-irrigation system ensures that water goes directly to the roots of the plant, instead of shooting up into the air and evaporating with an in-ground irrigation system.

"The water-saving benefits of micro-irrigation are dramatic," says Barber. "It's a difference of gallons per hour as opposed to gallons per minute." Class participants leave with free goodies, such as micro-irrigation starter kits.

Even if you have a micro-irrigation system, it is important to follow city and county restrictions. You must only use the watering system on your designated day and at the designated time.

Using the knowledge they learned from gardening classes, the Roberts' went home and completely revamped their landscape. They tore up much of the grass in their backyard and replaced it with drought-resistant shrubs, trees and other Florida-friendly plants. Thanks to their Florida-friendly renovations, they only need to water the gardens in their backyard about once a month.

"It is virtually self-sustaining!" exclaims Carolyn.

The couple's backyard is a gardener's delight, complete with butterfly garden, a Koi pond with its own mini-ecosystem, three rain barrels, a composting pile, and a treasure-trove of colorful trees and plants. The pair love their garden so much that they exchanged their wedding vows in a garden ceremony.

Carolyn has had so much success with the classes that she's gone on to become a teacher herself. Carolyn serves as the Library Coordinator and is spreading the word about Florida-friendly landscaping to others.

If you want to create your own piece of paradise, the Hillsborough County Extension Service has the tools you need to get started. The Web site is loaded with useful information including a garden workshop calendar, a diagnostics page, frequently asked questions and more.



Right Plant, Right Place



### Did You Know?

- Tomatoes grow best during Florida's winter season.
- You can attract butterflies to your yard with milkweed, bottle brush, passion flower vines, fire bush, lantana, and copper plants.
- Ladybugs and lacewings are a good way of getting rid of pesty aphids without using harmful pesticides.
- Handling sphagnum moss while it's wet is harmful. Sphagnum moss contains many micro-organisms that can be bad for your health.

For more information on Tampa and Hillsborough County gardening classes, the Florida Yards & Neighborhoods program, and the 2010 Master Gardener class, call (813) 744-5519 or visit: <http://hillsborough.extension.ufl.edu/HomeGardening/HomeGardening.html>

# Nature's Classroom:

## A Hillsborough Tradition

Walk up to any Hillsborough County native and ask them about Nature's Classroom and you are bound to get a positive response. Chances are that person attended Nature's Classroom as a part of their sixth-grade curriculum and experienced three days of hands-on learning on the Hillsborough River.

"Everywhere you go, you hear positive comments," says Karen Folsom, the Site Administrator. "Some people say that Nature's Classroom is the best thing they did in all their years of school!"

Nature's Classroom has been introducing children to the wonders of the wilderness for more than 40 years. Each day the program brings 250 to 400 students to the Hillsborough River Watershed for a field study. Nature's Classroom also offers programs for teachers and summer camp programs for kids in fourth through eighth grades, but the heart of the program is in the sixth-grade field study.

"The kids look forward to this trip all year and are excited when they finally get to come here. The field study is a tradition and many students hear about the program from their parents or their older siblings," Folsom says. In some cases, the third generation of students is now experiencing the program.

"One of our mottos is, 'be a part of nature, not apart from it'," says Folsom, noting that some of the children have never been outside in a wild space. "They have never seen the river, put their feet in the water, touched a snake, or even walked in the woods."

But after three days of being among nature, the students "leave the program with a new outlook on their connection to their environment."

The Hillsborough River Watershed program includes six major activities, including Florida native animal studies, an upland wetland hike, and boating. Throughout the field study, the students explore native plant and animal life and their many habitats.

During the boating activity, the students test the water for pH and oxygen levels and study how factors like nitrates, phosphates, turbidity, and temperature can help to determine the health of the river. "We explain that the condition of the water will directly affect the plants and animals living there," Folsom says.

"The hands-on nature of the program encourages kids to think critically about their surroundings. In everything that we study, we always consider human use and human impact and why the health of our habitats is so important to us. Over the 40 years of this program, we feel strongly that we are making a difference," explains Folsom.



The public is invited to experience the beauty of Nature's Classroom during the annual **Open House, April 18 – 19**, featuring live music, artists, exhibitors and food.

**10 a.m. – 5 p.m.**

Learn more about Nature's Classroom at:  
**[www.naturesclassroom.net](http://www.naturesclassroom.net)**





Installing low-flow showerheads and faucet aerators is one of the most effective water conservation strategies for your home. Below are some tips you can use to purchase water-saving gadgets the next time you head to your local home improvement store.

## Showerheads

### What are the standards?

The Energy Policy Act limits showerheads to a maximum flow of 2.5 gallons per minute. Hillsborough County Water Resource Services provides free showerheads to the public that flow 2.0 gallons per minute. There are showerheads available as low as 1.0 gallon per minute.

### What should you look for?

Look for a “soap-up” button allowing the user to shut flow down to a trickle while soaping or shampooing.

## Aerators

An aerator is a device that introduces air into the stream of water coming out of your faucet. Instead of a stream of solid water, an aerator uses a wire mesh screen to break up the water. You still get the same water pressure, but the actual volume is reduced, so you save water.



### What are the standards?

The Energy Policy Act limits faucet flow to 2.5 gallons per minute, however many homes still have older water-wasting models in place. Hillsborough County Water Resource Services offers free 2.2 gallons-per-minute aerators for kitchens and 1.0-gallon-per-minute aerators for bathrooms.

## Clothes Washers

Many of the newer clothes washers utilize the front-load method, which saves water and is better for your clothes. Horizontal Axis (front-load) models save up to 30 percent of water used as compared to vertical axis (top-load) models.

## Toilets

Replace your older toilet with a WaterSense-labeled high-efficiency model that uses 20 percent less water and doesn't sacrifice performance.

### What are the standards?

The Energy Policy Act limits toilet water use to 1.6 gallons per flush. High efficiency toilets flush at 1.28 gallons or less. All toilets on the market today are no more than 1.6 gallons per flush, but many homes still contain older models.

### What should you look for?

Look for high-efficiency toilets with the WaterSense label.

## Water Treatment

Water softeners require periodic regeneration cycling, which can use up to hundreds of gallons of water each time (and it adds sodium to the water). Carbon activated filters do not require regeneration and process water gallon-for-gallon.

## Irrigation

Traditional sprinklers can gush water, which often evaporates in the air or lands in the driveway instead of watering your thirsty plants. Using drip-irrigation helps water get directly to the root of the plants, where it needs to go.



### What should you look for?

Ask your home improvement salesperson to show you the “drip-irrigation” section of the store and look for the proper hoses, attachments, and micro-sprayers. Many stores sell drip-irrigation kits that contain everything you need to get started. If you attend a WaterWise workshop at the Hillsborough County Extension Service, you'll get a free kit after completing the course.

WaterSense, is the “Energy Star” for water. WaterSense is a partnership program sponsored by the U.S. Environmental Protection Agency that makes it easy for Americans to save water and protect the environment. Look for the WaterSense label to choose quality, water-efficient products.

*“Our resource of greatest abundance is also the most precious. Hillsborough County residents need to ‘think at the sink’ when they use water, making sure to be good custodians of this resource. Shutting off the water when you’re brushing your teeth, washing your hands, or shaving just makes sense.” – Commissioner Al Higginbotham, Hillsborough County, District 4*

# About Water Resource Services

Hillsborough County Water Resource Services produces, treats and delivers high quality drinking water, collects and treats wastewater, and distributes reclaimed water in unincorporated Hillsborough County. The department also administers a water conservation program and enforces mandatory water restrictions in unincorporated Hillsborough County. The restrictions apply to all residents of the unincorporated areas, and most water sources, including private wells.

Hillsborough County entered into the water/wastewater utility business in 1967 with the acquisition of the River Cove Water System and the Little Manatee Water and Sewer System, and a customer base of fewer than 2,000 connections. Today, Water Resource Services provides 49 million gallons of drinking water to 502,000 people through 141,700 accounts everyday. They also treat about 36 million gallons of wastewater from service areas that include more that 483,000 people and manage 131,900 sewer accounts. More than 22 million gallons of reclaimed water are delivered to 16,000 residential and commercial customers throughout the county each day. The department maintains more than 4,500 miles of pipeline, more than 695 sewage lift stations, as well as manholes, valves, hydrants and water meters.

More than 700 employees work at facilities across the county, including the department's administrative headquarters at 925 Twiggs St. in downtown Tampa, three customer service branch offices, various treatment plants, an environmental laboratory, maintenance yards, warehouses, and section offices at the NetPark and Pinebrooke commercial complexes.

Our pledge is to provide services that meet our customers' needs in a manner that meets or exceeds local, state and federal regulations, is environmentally-sensitive, cost-conscious, and takes advantage of new processes and technologies.



## Water Resource Services Administration

Address.....925 E. Twiggs St., Tampa, FL 33602  
 Web site..... [www.hillsboroughcounty.org/water](http://www.hillsboroughcounty.org/water)  
 Administration ..... (813) 272-5977  
 Customer Service..... (813) 272-6680  
 Emergencies After Hours & Weekends ..... (813) 744-5600  
 Water Restrictions (recorded information) ..... (813) 275-7094  
 Water Conservation Team.....(813) 274-6800, then press "1"  
 Water Violations Hotline..... (813) 224-8993  
 Water Quality Complaints ..... (813) 264-3835



## Saving Water at Home

Hillsborough County Water Resource Services has several customer service centers where you can pick up free showerheads and low-flow aerators for kitchen and bathrooms - all for FREE!

The centers are open weekdays from **8 a.m. to 5 p.m.**

### South-Central

Brandon Crossings Shopping Center  
 Southwest corner of State Road 60  
 and Falkenburg Road

### Northwest

15610 Premiere Drive in Northdale  
 Off Northdale Drive, west of  
 Dale Mabry Highway

### SouthShore

Hillsborough County SouthShore  
 Regional Service Center  
 410 30th Street S.E., Ruskin

**[www.hillsboroughcounty.org/water](http://www.hillsboroughcounty.org/water)**

*"It's a lot less expensive to save water than it is to produce new sources of drinking water. We need to take advantage of the opportunities available to make better use of reclaimed water." — Commissioner Mark Sharpe, Hillsborough County, District 7 (Countywide)*