

# WATERWAYS

## Water is a Precious Commodity Try Not to Waste It

**T**here's a reason cities are fighting over water. Though the population doubled from 1950-2000, the demand for water tripled! The US Environmental Protection Agency (EPA) states that at least 36 states are anticipating local, regional, or statewide water shortages by 2013. The average person now uses 100 gallons of water per day and the average household spends \$500 per year for water and sewer bills. More water supply infrastructure and wastewater treatment facilities will be needed. They are very expensive and use huge amounts of electricity. Cities will be mandated to use alternate water sources, including use of fragile water-dependent lake and river water for drinking. Efficient use of water may help prevent or delay a city's need to use its alternate water source.

Homeowners can help. Check for water leaks by reading your water meter with everything shut off. Read it again two hours later. If the meter changed, you probably have a leak. Put a drop of food coloring in your toilet tank and don't flush it. If the color shows up in the bowl, you have a leak. Check faucets and repair ones that drip.

The EPA promotes that every home in the U.S. should install water-efficient appliances. They propose replacing pre-1995, high-volume shower heads, and faucet aerators with low-volume ones. Inefficient toilets from 1992 and earlier use at least three and a half gallons per flush, while new models use less than one and a third gallons. Low-flow aera-

tors save a gallon per minute. Older washing machines use forty gallons per load, newer efficient washer uses 18-25 gallons, reducing the annual usage by 7,000 gallons. A full bathtub holds thirty-six gallons and a garden tub holds seventy, while a five minute shower uses ten to twenty-five gallons. Turn off the water while brushing your teeth to save 240 gallons a month. Kitchen faucets typically come with higher flow rates than bathroom faucets, so where you wash your hands makes a difference. Water conservation reduces the sewage treatment needs, which reduces your utility bill.

Up to half of the water used for irrigation is wasted to evaporation. Don't irrigate in the heat of the day or over-water. Hoses use 720 gallons per hour. Drip irrigation systems, which use between twenty to fifty percent less water, do not lose water to the wind, evaporation, or runoff because the water is distributed by low-flow emitters at ground level. Install a rain sensor, or soil moisture sensor on the irrigation system. A dull mower blade increases the lawn's need for water. Set the lawnmower blade at the highest setting and keep the blade sharp. Plant trees and use mulch to reduce evaporation and install a berm and swale system to hold rainwater in your yard.

Information for this article was obtained from: [www.sjr.state.fl.us](http://www.sjr.state.fl.us), [www.dep.state.fl.us](http://www.dep.state.fl.us), and [www.epa.gov](http://www.epa.gov).



### Nature's Music

By Bev Reponen, Editor

Most of the time, I enjoy the quiet provided by taking a walk. Recently, I enjoyed listening to a chorus of sounds normally not present in volume or individuals. There were unusual voices, including very deep tones and some rather raspy ones that were a bit "off-key" yet it was a joy to hear their music. I heard them after one of the recent rain storms. The voices were everywhere.



At the pond there were many frogs singing their songs of happiness. There were at least four different species represented. I could tell because the calls were quite unique. There were many singing the same song but not in unison. Others sang deeper and to a much slower beat. Still others were in the trees and provided their solos at full volume.

As I continued onward I heard the squirrels' raucous chattering among themselves, spreading their happy news. Various birds were calling and singing their songs. The world was alive with music. Even the air was participating. Wind gusts caused the rain to fall in "swishes" from the trees, while my footsteps made "squishes" on the muddy path, adding to the cacophony. It was one of the nicest walks. The rain seemed to add music to the parched world.

## Common Areas Get Neglected

Environmental problems do not start “at home” People take ownership of their property, keeping it clean, neat, and well-cared-for. Most pollution occurs on commonly owned public property adjacent to the private property. This is due to human nature. It is human nature to leave dropped garbage, from one’s own container, in the street for days after it missed being tossed in the truck. It is human nature to edge and clean the lawn at the curbs, while leaving the grass clippings in the street. And, it is human nature to disregard what happens to fertilizer and chemicals one pays a business to put on the lawn, as long as the lawn is lush and green. When common areas are owned by “everyone” much less interest is taken in those areas. People allow the areas to be maltreated because it is human nature to assign the responsibility to the city or state. If people owned the street in front of their home and the lakes in the back, both would be clean, spotless, and well-cared-for.

In Maitland and Winter Park, establishment of a Stormwater Utility has changed the human nature feeling of ownership. Residents now feel they have ownership in preventing further pollution



of the lakes and streets. They understand that what they do on their property has an economic impact in their wallets as well as an environmental impact in the lakes. Paying for fertilizer, pesticides, or herbicides to be spread in a haphazard manner that allows them to reach the lakes, then paying for lake clean-up wastes money. This publication has provided key information to residents so most understand where pollution starts and how it can be prevented. The Utility is helping remediate the damage. Adoption of ordinances helps prevent human nature impacts in commonly owned areas. Used together, the environmental impact can be quite positive.

## Audubon in June

By Lynne Flannery, Audubon Center For Birds of Prey

Two events are happening in late June at the Audubon Center for Birds of Prey in Maitland.

June 20 – Raptor Presentation at Winter Park Public Library. 1:30 p.m. Meet three of our radical raptors up close and learn about their lives in our local environment. This is one of a series of children’s programs held at the library for ages 3 to 21. Contact the library at 407-623-3300 for details and to register.



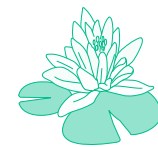
June 23-26 – Junior Rehabber Camp. 10 a.m. to 4 p.m. For children that have completed grades 1-3. Explore the world of raptor rehabilitation by learning about feeding, general care, releasing and more. Sessions will include a variety of nature and bird related activities in addition to raptor rehabilitation. Participants will need to bring their own bag lunch, water bottles and sun protection. A healthy afternoon snack will be provided.

To register and to learn more about education programs at the center contact Lynne Flannery at (407) 644-0190 or [lflannery@audubon.org](mailto:lflannery@audubon.org).

## Lake Maitland Update

By Marissa Rodriguez, Maitland’s Lakes Mgmt. Coord.

As part of the March-April 2009 issue of Waterways, it was announced that the City of Maitland had been awarded a \$549,000 cost share grant from the Florida Department of Environmental Protection to construct a stormwater treatment and conveyance system in the Ridgewood Neighborhood. Since then, the City’s Public Works Department has fine tuned the project plans and requested contractor bids to begin construction. It is anticipated that project implementation will commence in the summer of 2009. This project will not only improve roadway drainage, but it will also treat stormwater inflow for pollutants such as nutrients, yard debris, pesticides, etc... It will incorporate installing subterranean storage vaults that encourage stormwater percolation, inlets and surface drains, curbing, and repaving of existing roadways within the construction area. For more detailed project information and scheduling, please visit the City’s website at [www.itsmymaitland.com](http://www.itsmymaitland.com).



Did you know five states have the mockingbird as their state bird? Florida, Arkansas, Mississippi, Tennessee, and Texas.

## Phosphorus-Free Fertilizer Adopted Elsewhere

“Lake Tides”, a Wisconsin newsletter for people interested in Wisconsin lakes, announced that on April 14, 2009 Governor Doyle signed the “Clean Lakes Bill” into law. Wisconsin’s state-wide law prohibits the display, sale, or use of lawn fertilizer containing phosphorus, with certain exceptions. Citizens, natural resource professionals, elected officials, businesses, and conservation groups partnered on the bill. To give retailers

time to order phosphorus-free lawn fertilizer, the law will take effect in 2010. Using the internet, one finds that several cities in the states of Michigan, New Jersey, and Maine have adopted phosphorus-free fertilizer usage. Is it time for Florida cities to consider adopting a similar ordinance or state-wide law? We’d like to hear your opinion. Email your responses or comments to [fmwaterway@aol.com](mailto:fmwaterway@aol.com).

## Helpful Hints

- Take care not to release helium filled balloons. When they land in the ocean, the balloon and ribbons lose their color and look like a jellyfish, which are a turtle's favorite food. Schools of squid love to congregate around the balloon and it, along with the squid, is eaten by a whale.
- Use a bucket test to see if your shower head is a low-flow model. Turn your shower on to the setting you use and capture the water in a bucket. Time how long it takes to fill it to the one gallon mark. If it takes less than 20 seconds, you need a low-flow model.
- Purchase non-bleached coffee filters. They are available at Publix. Bleaching coffee filters, to make them white, produces a toxic by-product that gets into our waterways.

## Wekiva River Basin Management

By Marissa Rodriguez, Maitland's Lakes Management Coord.

Many residents in the City may not be aware that a number of our lakes eventually drain to the Wekiva River. Lakes Hungerford, Lucien, Harvest, Shadow, and Lovely, located wholly or partially within our jurisdiction on the West side of town, flow to the Little Wekiva River through wetlands, canals, and a variety of drain pipes. The water table for the Northwestern portion of the City is also within the Wekiva River's groundwater recharge area, providing a secondary connection point to the River itself.

Due to our direct hydrologic involvement, the City of Maitland will join more than a dozen other entities in the establishment of the Wekiva River Basin Management Action Plan (BMAP). Spearheaded by the Department of Environmental Protection (FDEP), this plan will be developed and enacted to address the River's Total Maximum Daily Load

(TMDL) impairment that was established by the State. In effect, the project will be geared towards reducing nutrient loading (Nitrogen and Phosphorous) that each involved municipality contributes to the river.

The City of Maitland is already participating in a BMAP for Lake Jesup on the St. Johns River due to our surface water connection through Howell Creek and its upstream contributing water bodies on the Winter Park/ Maitland Chain of Lakes. We are already in the process of planning and instituting stormwater treatment projects, such as the Lake Maitland Basin Drainage Improvements, that will obtain reduction credit from the FDEP for nutrient reduction allocation. If you have any questions regarding these projects or any other stormwater/lake related issue, please feel free to contact Marissa Rodriguez at 407-539-6203.



## These Ducks "Dabble" and Eat Acorns

The wood duck is sometimes called a dabbling duck or acorn duck. The males, or drakes, are iridescent blue, green, and purple with white stripes and patches. His eyes are red and his bill red-orange. His coloration attracts hunters and bird-watchers. The female, or hen, has a more drab gray, white, and brown coloration and a white circle around her eye. Both have a noticeable crested head and a white patched throat.

Wood ducks are one of the few ducks that breed and nest in Florida. Some are year round residents. Others nest further north after migrating south for the winter. They live in wooded, brushy wetland areas and spend most of their time where they have cover. They have long claws on their webbed feet that allow them to perch on tree branches that hang over water and preen themselves or rest in safety. They prefer swamps and upland oak-hickory forests, which provide acorns and hickory nuts, which they swallow whole. Their gizzard crushes

the nuts into digestible pieces.

The ducks feed (dabble) on or near the surface of shallow water, tipping their head into the water until their tail sticks straight upward while they probe the bottom for parts of plants and seeds. Unlike most ducks, they forage on the ground in woody swamps and lowland hardwood forests. They love acorns that



fall into shallow water, especially those from the water oak, lural oak, and shumard oak. They also eat seeds, fruits and other plant parts, and a limited number of spiders, insects, snails, and crawfish.

Once a drake chooses a hen he follows her everywhere, including back to the

nesting place where she hatched. If he selects a migrating hen, he follows her back north for the nesting season. Wood ducks nest in tree cavities and they prefer old pileated woodpecker cavities located three to sixty feet above the ground. In Florida, egg laying starts in January through March, with one egg laid each day until a clutch of ten to fifteen eggs is finished. Then the thirty day incubation period starts. The drake's job is done and he departs before the ducklings hatch and he never returns.

Ducklings leave the nest the day after they hatch. The hen calls them with a loud "whoo-w-eet". They use their sharp claws to climb to the entrance of the cavity and jump, hitting the ground or water, usually uninjured. The hen leads them to nearby water and stays with them. Their death rate is high. Turtles, alligators, snakes, hawks, and bass prey on them. Only three or four survive to fly at nine weeks of age.

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## Mulching Mower Blades

If everyone used a mulching lawn mower, the reduced loading at the landfill would be substantial. Yard waste is a huge contributor to the filling of the landfill. When your lawnmower blade needs replacing, purchase a mulching blade. This easy to do effort will have a tremendous impact. Secondly, during leaf drop season up to seventy five percent of the lawn pick-up material is leaves. To help the earth, retain some leaves in your planting beds.

## Sustainability - What Does it Mean?

Sustainable systems in the natural environment include the water cycle, rock cycle, and nutrient cycle which function so that the output is recycled into the input of the same system or into another system. To become a sustainable world, people need to mimic nature and recycle wastes into materials for other uses. As humans achieve this, waste is cut and new jobs are created.

An example from Switzerland of a sustainable system involves breweries. Brewers take the spent grain from the beer making process and use it to make bread and grow mushrooms. The waste from mushroom farming, together with wastewater from the brewery is used to feed pigs. Pig waste is used to form and collect natural gas. Nutrients from the digested pig waste are used to grow algae to feed fish in fish farms. The end result is beer plus many jobs and increased income from bread, mushrooms, pigs, gas, and fish.

## Friends of Maitland's Waterways, Inc.

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Maitland, Florida 32751

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Thank you, to all who renewed their memberships!  
If you didn't, please do so now. We are counting on you.

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\_\_\_\_\_ Please call me. I want to participate as a volunteer.