

The City of Boca Raton

A Green and Sustainable Community

Scientists agree that human population continues to have an effect on the environment. This is especially true in South Florida, where there has been a significant increase in population over the last several decades.

Environmental experts use the concept of sustainability to describe the ways that communities are designed, built, and operated so that they use energy and natural resources efficiently and equitably. Another way of describing sustainability is meeting the needs of the present without

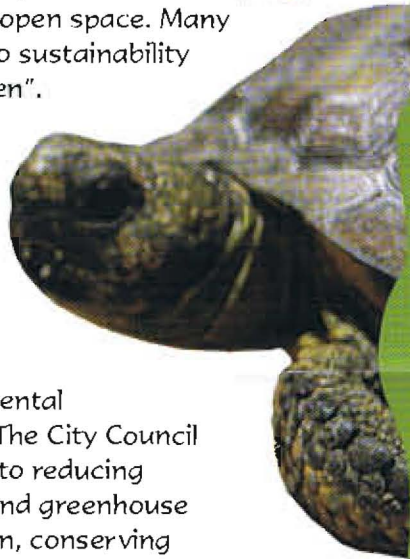
compromising the ability of future generations to meet their own needs. Sustainable communities conserve energy, protect the environment, use renewable

materials, safeguard water resources, and preserve open space. Many people refer to sustainability as being "green".

The City of Boca Raton continues to be a leader in community sustainability and environmental stewardship. The City Council is committed to reducing air pollution and greenhouse gas production, conserving energy, protecting native wildlife, preserving environmentally sensitive land, conserving water resources, and providing educational programs.

However, effective environmental protection and community sustainability can only occur when citizens and businesses share the responsibility for environmental stewardship.

For more information on community sustainability and other City of Boca Raton information, please go to the City of Boca Raton website: www.ci.boca-raton.fl.us ■



Boca Raton City Council

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Mayor

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Deputy Mayor

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Council Member

Bill Hager
Council Member

Susan Haynie
Council Member

Leif J. Ahnell
City Manager

Preservation of Resources

City a Leader in Preserving Environmentally Sensitive Land

Live oak hammocks, sand pine scrubs, red maple forests, palmetto prairies and wetlands are all types of ecosystems which thrive at the seven public preserves of environmentally sensitive land totaling 377 acres within the city limits of Boca Raton. The City has been a leader

in acquiring, preserving and managing environmentally sensitive land. In fact, Boca Raton was one of the first cities in Florida to

issue bonds for the purchase of environmentally sensitive land.

Boca Raton owns and manages five preserves containing nearly 77 acres, and the 212-acre Yamato Scrub is co-owned with Palm Beach County. The City also originally acquired the 79 acres adjacent to the Spanish River Library and Community Center which became the County's Pondhawk Natural Area. From Rosemary Ridge in the north to the Blazing Star in the south, these preserves are home to a wide variety of animals and birds, including endangered species such as the gopher tortoise and the scrub jay. ■



Project IRIS Preserves Water Resources

As the population in South Florida continues to grow, the demand for water grows, but the amount of water available remains unchanged. So instead of wasting valuable drinking water to irrigate green spaces, Boca Raton was one of the first communities in the state to develop a reclaimed water system. Reclaimed water is recycled wastewater that has been highly treated, filtered, and disinfected and then used for the irrigation of landscaped areas. It is a sustainable and renewable water resource.

IRIS (In-City Reclamation Irrigation System) water is "reclaimed" at the City's Glades Road Utility Services Complex. This award-winning treatment facility uses a multi-stage treatment process.

City employees monitor the reclaimed water quality twenty-four hours a day, seven days a week to be certain that it meets strict quality and safety standards. IRIS water is pumped from the treatment facility to golf courses, medians and other irrigated areas through pipes that are completely separate from the City's drinking water system.

Currently the City's IRIS reclamation facility produces 5 to 6 million gallons of reclaimed water per day. This means that the City preserves almost 2.2 billion gallons of fresh water every year!

During the next five years the City will be expanding its IRIS capacity to 16 million gallons per day and extending the distribution system.

There are many benefits of using reclaimed water.

Reclaimed water:

- Costs less than potable water
- Helps preserve the environment
- Is available even in droughts
- Helps to recharge groundwater
- Helps landscaping because it contains beneficial nutrients
- Increases the amount of fresh drinking water available
- Is a renewable resource ■



"When the well's dry, we know the worth of water."
- Benjamin Franklin

Sea Turtle Day - 2008

Boca Raton's third annual Sea Turtle Day was held at the Gumbo Limbo Nature Center on March 15, 2008, and attracted nearly 3,500 visitors (the Gumbo Limbo's daily average is closer to 280 visitors).

Sea turtles like those that nest on Florida's beaches have been around for over 65 million years, but survived the wave of extinctions that eliminated the dinosaurs. However, the turtle population is declining. Loggerhead sea turtles placed only 398 nests on Boca Raton's beaches in 2007, the lowest total since record keeping began.

Sea Turtle Day celebrates the annual beginning of sea turtle nesting season, and it is Boca



Raton's largest event to educate the public about the plight of sea turtles and recruit the assistance of concerned citizens.

Sea Turtle Day 2008's theme was "Say No To Sky Glow." A result of wasteful lighting practices and poorly designed fixtures, sky glow can originate even miles inland from lights aimed or reflected into the sky. The resulting bright horizon discourages

female turtles from nesting and can fatally disorient sea turtle hatchlings. One of the Sea Turtle Day events was the distribution of awards to condominiums and resorts that have instituted sea turtle-friendly practices, such as installing outdoor fixtures and bulbs that aid the survival of our threatened and endangered sea turtles. ■

Facility Turns Wastewater Biosolids Into Fertilizer

Construction is underway on a facility that will transform wastewater biosolids, the nutrient-rich organic material produced at the Boca Raton Wastewater Treatment Facility, to an environmentally-sound agricultural fertilizer. The City of Boca Raton is partnering with the Palm Beach County Solid Waste Authority and other municipalities to build and operate a facility that will use a high temperature process to turn the wastewater biosolids into environmentally-friendly fertilizer pellets that can be beneficially reused. ■

What Can I Do?

Population growth in South Florida has put a strain on the region's water resources, and water conservation is an important activity that we all can do to preserve water resources.

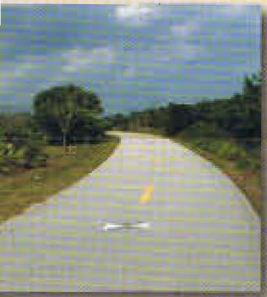
- Water lawns only when they need it, and only when the restrictions in place for your area allow.
- Use mulch to retain moisture in the soil - this helps control weeds too.
- Ensure your irrigation system is working properly. Position sprinklers so the water lands on the landscaping and off paved areas.
- Plant smart. Use native, drought-tolerant plants for landscaping. Xeriscaping is a great way to design, install, and maintain your plants and irrigation system.
- Use a broom or blower instead of a hose to clean leaves and other debris from your driveway or sidewalk.
- Use a shut-off nozzle on your hose.
- Use a commercial car wash that recycles water. ■



Urban Design

New Bike Trails!

The City of Boca Raton adopted a Bicycle, Pedestrian, Greenway and Trails Master Plan in October 1996. Since that time, the City has been constructing sidewalks, bike lanes, and shared use pathways, including the Patch Reef Trail, A1A bike lanes, and NW 20th Street bike lanes and sidewalks.



The City is currently constructing the second phase of the El Rio Trail and it is near completion. It will provide

an important east-west link between Spanish River Blvd. and Yamato Road under I-95. The trail will feature a direct connection to the Boca Raton Rail Station platform, as well as decorative seating, a fishing platform, and landscaping along the trail. This section of the trail will provide improved connections for commuters to FAU in addition to providing recreational opportunities to residents. The \$1.7 million dollar project, which was primarily funded with federal and state grants, is expected to be completed in early May 2008. ■

The City of Boca Raton has 44 miles of bike lanes and an additional 30 miles of bike and shared use trails.

Green Buildings Reduce Impact on Environment

"Green buildings" is the commonly used name for buildings that have increased the efficiency of the resources used in the construction and operation of the buildings, as well as reducing the impacts of the buildings on human health and the environment. Green buildings minimize the use of non-renewable resources while increasing the use of recycled materials. Green buildings are designed and constructed to increase the efficiency of water use and energy consumption.

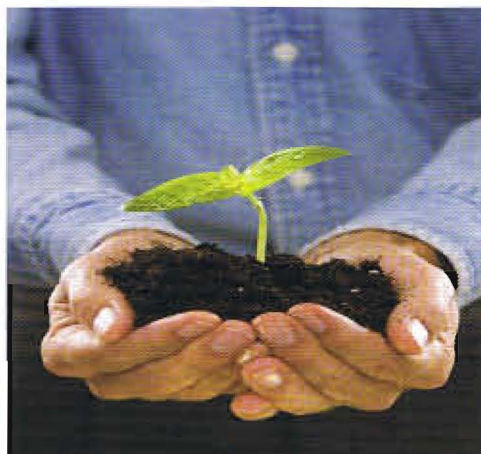
Buildings that meet specific criteria can be certified by the U.S. Green Building Council's

Leadership in Energy and Environmental Design (LEED). These certifications can apply to new or existing buildings.

According to the U.S. Dept. of Energy's Center for Sustainable Development, buildings consume 40% of the world's total energy, 25% of its wood harvest and 16% of its water.

The City is a member of the U.S. Green Building Council and is currently reviewing incentives for new or renovated LEED Certified buildings. Possible incentives range from expedited plan review and development fee reductions.

There are a number of LEED-certified buildings currently being constructed within the City. It is also planned that all new City buildings, including the proposed new downtown library, will be LEED certified. ■



Boca Raton Named as

For 27 years, Boca Raton has been certified as a Tree City USA by the National Arbor Day Foundation. Only five of the 129 Tree Cities in Florida have been certified for that long. In order to qualify for this certification, a city must have a viable tree management plan and program,

"Development today must not undermine the development and environment needs of present and future generations."

- United Nations Conference on Environment and Development

MMTD Fights Traffic and Helps the Environment

The City of Boca Raton is the first city in South Florida working to create a citywide Multi-Modal Transportation District, or MMTD. The MMTD is a long-term plan to reduce traffic congestion, reduce auto emission and address other environmental concerns.



A primary element of the MMTD is the strengthening of alternative transportation such as the rail system and shuttle buses. The new bus route between the rail

station and FAU/PBCC is part of the new MMTD implementation. The City is planning additional shuttle bus routes throughout the City. Safe, comfortable and attractive pedestrian and bike paths are also part of the MMTD.

Another major element of Boca Raton's MMTD is the development of "activity centers" within the City, areas where people can live, work, and shop within close proximity, reducing the need for personal driving. City staff will be working with a consultant to review the activity centers and to determine the look of each of them - including the appropriate mix of housing, offices and businesses. Examples of activity centers are the Mizner Park/ downtown area and the "mid-town" area near the Town Center Mall. ■

Tree City USA

including a tree care ordinance, a community forestry program of at least \$2 per capita, and an Arbor Day observance.

Founded by J. Sterling Morton in Nebraska in 1872, National Arbor Day is celebrated each year on the last Friday in April. City of

Boca Raton officials celebrate Arbor Day in cooperation with the local elementary schools. This year the celebration took place at Verde Elementary School on April 25; students, parents, teachers and city officials participated in planting trees near the school's playground. ■

What Can I Do?

Preserving the environment is a responsibility that each of us shares. Here are some of the actions that each of us can take to help with the City's environmental programs.

- Use Energy Star products to conserve energy

- Use alternate transportation - a bus, a bike or carpool - at least one day a week.

- Replace standard light bulbs with compact florescent (CF) lights. According to the EPA, CF bulbs are 66% more effective and last 10 times longer than standard bulbs.

- Install a programmable thermostat to reduce energy during the times when no one is in the house.

- Use cold water to wash clothes. This saves a significant amount of energy, and clothes will last longer and their colors will remain brighter.

- Install a low flow showerhead, since 2/3 of water heating costs are from showers. ■



Environmental Awareness

Programs Reduce City's Carbon Footprint

The City of Boca Raton has implemented programs that reduces the carbon footprint of its operations. As examples, the City has:

- Started using biodiesel fuel in the City's diesel vehicles and has purchased five hybrid vehicles.
- Replaced all of the bulbs in the traffic lights with LED lights which reduces energy consumption by almost 90%.
- Installed energy efficient lighting fixtures in City buildings.
- Installed computerized irrigation systems that measure precipitation and soil moisture and set the irrigation timers accordingly.
- Switched to recycled paper. ■

A carbon footprint is a measure of the impact that human activities have on the environment. It is described by the amount of greenhouse gases that are produced by the activity, and is measured in tons of carbon dioxide.

City Leads in Recycling

The Boca Raton recycling program has received recognition at local, state, and federal levels. The City was one of the first in South Florida to have a recycling program, and it is one of the longest running programs of its kind.

Environmental concern and public awareness led to the establishment of the City of Boca Raton's recycling program in the early 1970's. It started as a contract with a company to collect newspaper from homes in the City, and has expanded into a significant City recycling program, that, in addition to newspaper, includes glass, cartons, juice boxes, magazines, plastics, corrugated cardboard, catalogs, aluminum, and telephone books.

The City collects and transports the recyclables to the Palm Beach County Solid Waste Authority (SWA) Facility. Every year since the City began collecting and transporting recycled material to the SWA facility, the City of Boca Raton has delivered more recyclable material than any other municipality in Palm Beach County. ■

Clean-Up Programs

The City of Boca Raton sponsors or partners with civic organizations on a number of clean-up programs throughout the City including the beaches, waterways, and neighborhoods, as well as removing invasive, non-native species of trees and bushes. ■



"The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard."

— Gaylord Nelson

Household Hazardous Waste Disposal

Household hazardous waste products include:

acids/caustics	latex/oil paint	adhesives
medicines-expired	antifreeze	minerals
batteries	car/marine motor oil	Ni-cad batteries
needles/syringes	bleach/chlorine	petroleum products
chemicals	pool chemicals	fertilizers
propane tanks	flammables	rat poison
fluorescent tubes	solvents	grease
weed killers	pesticides	other products

Never dispose of household hazardous products by burning them, burying them, or pouring them down the household drain or storm drain. And don't place them at the trash. All of these methods can hurt the environment and can be dangerous to yourself and others.

Instead, take household hazardous products to a facility that can properly dispose of the products, such as the Delray Transfer Station, located at 1901 SW 4th Avenue, Delray Beach. The facility accepts household hazardous wastes Monday

through Friday, 7:00 a.m. - 5:00 p.m. and on Saturdays, 7:00 a.m. - 2:00 p.m. Please call 1-866-792-4636 to get directions to the facility. You can also dispose of hazardous waste at the SWA's Household Hazardous Waste Collection Center, 6161 N. Jog Road, West Palm Beach, which is attended Monday through Friday, 7:00 a.m. - 5:00 p.m.

For questions or more information on proper disposal of household hazardous waste, please call the Solid Waste Authority of Palm Beach County at 1-866-792-4636. ■

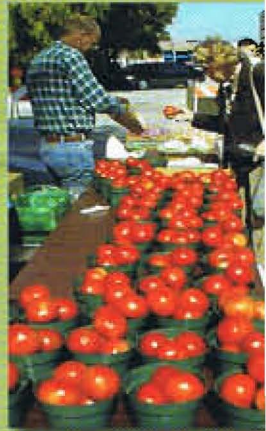


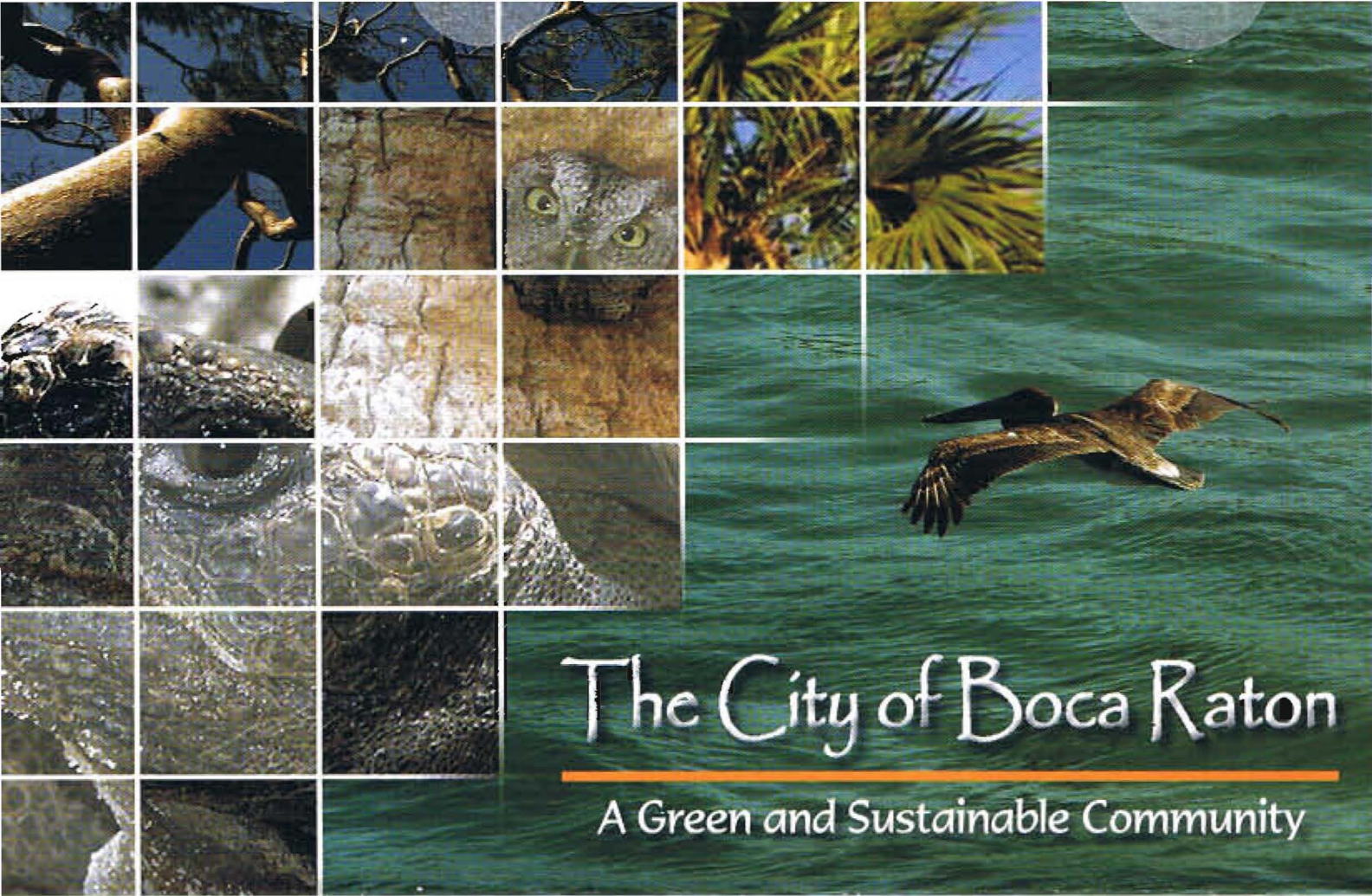
The City of Boca Raton owns and maintains nearly 2.5 miles of beachfront property. And the beachfront parks contain environmentally preserved areas such as those found in Gumbo Limbo Nature Center at Red Reef Park. The Gumbo Limbo Nature Center has a wide variety of environmental programs available to the public.

What Can I Do?

Preserving the environment is a responsibility that each of us shares. Here are just some of the actions that each of us can take to help with the City's environmental programs.

- Don't put waste oils, paint or trash into the storm sewers and drains. Everything that enters the storm water drains ends up in canals or the Intercoastal Waterway.
- Recycle plastic, glass, metal and paper.
- Buy locally produced foods. Not only is the food fresher, but it reduces the energy required for transportation and storage.
- Participate in neighborhood clean-up programs.
- Wash full load in the dishwasher. This actually uses less water and energy than washing them in the sink.
- Caulk and weather-strip windows and doors so conditioned air stays inside.
- Clean or replace AC filters regularly. ■





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201 West Palmetto Park Road
Boca Raton, Florida 33432

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