

## REMEMBER

In Broward County our stormwater water management system has to meet the needs of nearly 1.7 million residents. The canals and the surface water management features work together to make Broward County a safe and healthy place to live. Broward homeowners collectively have a great influence over the quality of stormwater. We hope this Best Management Practices brochure has given you some ideas on how you can be a part of the team to restore the Everglades and meet Broward's future urban water needs.



This brochure is intended to get you started. More information can be found at the following websites.

<http://www.broward.fl.us/watermatters/>

<http://www.broward.org/extension>

<http://www.broward.org/naturescape/>

<http://www.sfwmd.gov/org/exo/broward/c11bmp/index.html>

LANDSCAPE  
BEST  
MANAGEMENT  
PRACTICES  
FOR BROWARD COUNTY



# LANDSCAPE BEST MANAGEMENT PRACTICES FOR BROWARD COUNTY



## BMPs

### BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are guidelines for landscape maintenance that keep landscapes visually attractive while conserving our water resources, reducing pollution, and protecting our fragile South Florida environment. In Broward County, we have packaged landscape BMPs under the "NatureScape Broward Initiative." Using the proper irrigation, fertilization, and mowing techniques recommended by NatureScape, as well as proper plant selection, urban landscapes can better coexist with the natural environment.

#### WHY DO WE NEED BMPs?

Over the last 60 years, Broward County has transformed from a rural community to a highly populated urban center. The Central and Southern Florida Project was responsible for draining many areas of Broward, which resulted in increased agricultural production and population growth. Today residential and commercial uses dominate Broward County's urban areas, although two thirds of the County remains protected as Everglades.

Land use transformations have greatly impacted our urban environment and the Everglades. Impervious surfaces such as roads and parking lots decrease the land's ability to absorb, filter, and store rainwater, which recharges our drinking water supply. Also, some of our current methods of maintaining our urban landscaping, including over watering, over fertilizing and planting invasive species have resulted in negative environmental impacts.

#### SOURCES OF POLLUTION

When it rains in Broward County, pollutants and contaminants such as phosphorus-rich fertilizers, pesticides, herbicides, oils and grease, wash off roads and other hard surfaces and are carried by stormwater into ponds and canals. To provide flood control, stormwater may be pumped from canals directly into the Everglades. Contaminants in stormwater "run off" end up in our waterways. Unfortunately, there are no processes to effectively filter out all of the phosphorus and other pollutants before they reach the Everglades.

#### PHOSPHORUS IMPACTS

You hear a lot about phosphorus in the Everglades. Phosphorus negatively impacts the Everglades by upsetting the ecological balance of aquatic plants. Aquatic plants in the Everglades thrive under low phosphorus conditions. Most other plants are not adapted to grow under these conditions. However, once phosphorus is introduced into the Everglades, other plants, such as cattails, are able to grow at faster rates. As a result, plants that once naturally dominated the Everglades are being crowded out by these fast growing invasive plants.



help conserve our water resources, reduce pollution, and increase the beauty of yard landscaping

## WHAT YOU CAN DO TO HELP...

### IRRIGATION MANAGEMENT

Proper irrigation is key to Best Management Practices for healthy landscapes and waterways. It is estimated that we use from 25 to 50% of our per capita use of water for irrigation. Over watering favors the growth of water-loving weeds and pests and also creates runoff which may carry fertilizers, herbicides, and pesticides from yards into nearby waterways.



Most irrigation problems are maintenance related, not based on design deficiencies. With nothing more than a tune-up, the vast majority of irrigation systems can

generate large water savings. In some instances, by examining the distribution and timing of our sprinklers we can avoid over-spray onto impervious surfaces.

#### Watering Tips:

- Avoid watering impervious surfaces such as your driveway.
- Check sprinklers twice a month to ensure sprinkler heads are in good repair.
- Limit irrigation to just twice per week in the summer and once per week in the winter -this will stimulate the development of a deep root system and increase drought resistance.
- Water your lawn early in the morning and deeply (3/4 - 1 inch of water).
- Add a rain shut-off device to your sprinkler system, or use a rain gauge and turn off your system when the lawn has received 3/4 to 1 inch of rain.
- Watch your grass for signs it needs water. The lawn may wilt in the late afternoon after several days, you can then irrigate in accordance with water restrictions.

### FERTILIZER MANAGEMENT

Turfgrass is Florida's largest crop with 65 thousand acres in Broward County alone. While a lush green lawn adds aesthetic value to your property, the methods used to achieve the "green look" have raised environmental concerns. One of these methods is the use of fertilizers that contain phosphorus, which has been identified as a major pollutant in the Everglades. Experts agree that in South Florida, the soils may be sufficiently rich in phosphorus, so that additional phosphorus is not required to support plant growth. However, most



fertilizers on the market contain a combination of nitrogen, potassium and phosphorus. Homeowners can assist in Everglades's restoration by selecting slow release fertilizers low in phosphorus and by limiting fertilizer application, as well as following careful methods of application when needed. This will reduce the amount of phosphorus that can potentially impact our waterways and the Everglades.

#### Fertilizing Tips:

- Use a slow-release fertilizer with low or no phosphorus. (with a middle number 3 or less, i.e. 13-3-13)
- Apply fertilizer using smaller applications rather than a large, single application. (consult local extension service for number of times of applications)
- Postpone fertilizing when more than 1 inch of rain is expected.
- Use a tarp under the spreader when filling or emptying to prevent spills. Make sure fertilizer does not fall onto sidewalks or impervious surfaces during application. If this happens sweep granular fertilizer onto the lawn, NEVER hose it off.
- Maintain a minimum 3 foot buffer around waterways, keeping fertilizers and pesticides from the water's edge.

### NATURESCAPE

NatureScapes are "Florida Friendly" yards and landscapes that conserve and protect water quality by using many of the landscape BMPs we discussed in this pamphlet. NatureScapes use native plants and drought tolerant plants, and reduce storm-water contamination caused by excessive use of pesticides and

fertilizers. They provide food, water and shelter for resident and migrating wildlife from birds to butterflies. NatureScapes use integrated pest management practices, and recycle yard waste into mulch and compost. Your property can be certified as a NatureScape Broward yard by either Florida Yards & Neighborhoods or the National Wildlife Federation. Contact Extension Education for information (954) 370-3725, ext. 252.

#### NatureScape Tips:

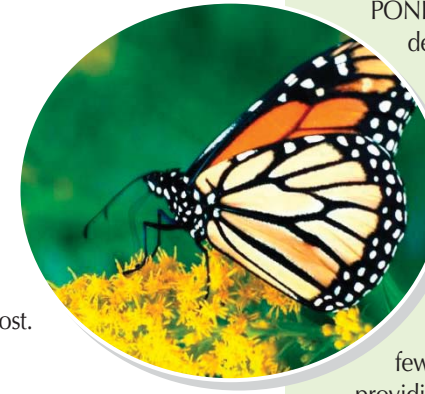
- Conserve water by using native plants.
- Make sure plants are properly placed with respect to sunlight, drainage, irrigation and space requirements.
- Make sure the people you hire to care for your yard are licensed professionals.
- Use integrated pest control practices.
- Recycle yard waste into mulch and compost.
- Do not over water.

### VEGETATION MANAGEMENT

Maintaining a healthy vegetative cover will reduce the amount of phosphorus and nitrogen, and other pollutants from entering the Everglades. A thriving native landscape can conserve water and reduce sediment loads entering water bodies.

#### Vegetation Management Tips:

- Mow at the recommended height for your grass species. Maintain St. Augustine and Bahia at 3-4 inches, Bermuda grass 0.5-1.5 inches, and Centipede 1.5-2 inches. This produces a lawn with better tolerance to environmental stress.
- Mow frequently, as a general rule, once per week.
- Try not to remove any more than one-third of the grass leaf blade at a time.
- Practice "grasscycling," or mulching by leaving clippings on the ground.
- Make sure grass clippings do not blow into water bodies or onto impervious surfaces such as sidewalks
- Properly prune trees annually or as needed.
- By following a proper irrigation regime you can reduce the need for weed control. By May most weeds will "burn off" so you will only need to spot treat what is left.



- Make sure the people you hire to care for your yard are licensed professionals.

### STORMWATER MANAGEMENT

Managing stormwater to prevent or limit flooding is a constant challenge. Your neighborhood surface water management system typically includes SWALES, DITCHES, RETENTION/DETENTION PONDS and NEIGHBORHOOD CANALS. This system is designed to provide not only flood protection but water quality treatment for your community. It is important that property owners are familiar with their surface water management system and its maintenance. This is especially important during south Florida's wet season – from June through November.

Swales are one of the most common ways of moving and cleaning stormwater in neighborhoods. A swale is a dip in your lawn, which varies in depth from 6 inches to a few feet. Swales retain and treat stormwater runoff by providing a filter for contaminants and pollutants, and also provide drainage by allowing water to soak into the ground or flow into inlets and canals.

#### Stormwater Management Tips:

- Remember when water ponds in your swale, the swale is doing its job.
- Keep swales mowed and clear of blockages including trees, shrubs, mulch and other forms of landscaping.
- Filling in swales will affect the ability of your land and your neighbor's property to drain.
- Keep areas around canals and ponds open and clear of fences and other structures so they are accessible for maintenance.
- Trees and large shrubs are not permitted along canals and waterways.
- Sweep debris off storm drains.
- Never put chemicals, fertilizers, pesticides, lawn clippings, soil or other debris down storm drains– today's stormwater may be tomorrow's drinking water.

