

# SPANISH WELLS COMMUNITY ASSOCIATION INC.

## LAKE BEST MANAGEMENT PRACTICES AND GUIDELINES

### LAKE AND STORM WATER MANAGEMENT SYSTEM

Water in Southwest Florida is a precious natural resource. With our population growing each year we must protect and preserve our fresh water. With that goal in mind, Spanish Wells has developed a lake and storm water management system, a residential dual water system, and adopted xeriscaping principles.

Spanish Well's lakes are not only beautiful, they are functional. Spanish Well's storm water management system has been permitted by the South Florida Water Management District to provide for flood control and to meet state water quality standards. Lake levels are designed to fluctuate throughout the year, as both the amount of rain and the ground water levels vary.

Where possible, storm water flows are routed through vegetation, swales and berms where the absorption of nutrients and the filtration of sediments and organic debris begin. The water is then collected in numerous ponds, marshes, and man-made lakes where it is detained for further filtration before flowing into saltwater estuaries. This detainment also protects against downstream flooding during a heavy rainfall. Both the overflow elevations and the drainage rate out of the ponds are based on the way water naturally behaved on the property prior to development. This maintains the natural groundwater table and preserves the natural "hydro period", or the amount of time it would take the land to drain naturally.

The permit from the South Florida Water Management District also requires that SWCA maintain all segments of the water management system. This includes the drainage pipes, pumping system, ponds, marshes and man-made lakes. Clearly, drainage pipes need to be replaced periodically and the pumping system needs to be maintained on a continuous basis.

**However, the maintenance of the marshes and ponds are more complex and requires the compliance of adjacent property owners with several rules.**

The rules that apply to property owners that are adjacent to marshes, ponds and other drainage areas are as follows:

1. The drainage ditch that follows the western and southern portions of the SWCA property are designed to handle significant amounts of water during the drainage season. Therefore residents and property owners are forbidden to modify the ditch, attempt to maintain the ditch, or deposit any kind of debris in the ditch.
2. All structures that are adjacent to any portion of the drainage system must have approved water run-off management systems. This means for example, that downspout drains may not be situated as to cause surface erosion, erosion of the drainage ditch, marshlands or any lake bank. Splash pads or underground piping are examples of two possible solutions to avoid erosion. All residents are responsible for mitigating any erosion potential and will be held responsible for repairing erosion resulting from un-approved drainage. SWCA has engaged engineers to properly design erosion mitigation systems. If you have any concerns about your drainage systems, please submit a request to SWCA for approval.

3. Modifications to existing infrastructure, including drainage pipes, catch basins, spillways and marshlands or any other components of the water management system are strictly prohibited.
4. All grounds and landscaping that are adjacent to the water management system must be designed to provide a sufficient buffer to the water management system and must be maintained without damaging the water management system. Fertilizing rules are listed below in the Lee County ordinance. In addition to amounts and timing of applications, the rules also stipulate that no fertilizer be applied within 10 feet of the water management system. Landscape debris must be disposed of in accordance with the Lee County rules. And, vegetation killing chemicals must not be applied within 6 feet of the water management system. See sections below for further details.
5. SWCA reserves funds for maintenance and normal repairs to the water management system. These include drainage pipes, drainage ditch clearing, pumping system and normal lake bank erosion. However, any damages to the water management system will be considered a specific and separate assessment to the property owner who is deemed to have contributed to the erosion or degradation of the water management system.

### **WATER MANAGEMENT AND DRAINAGE AREAS**

*Article III, Section 3.04 of the Amended and Restated Declaration of General Protective Covenants and Restrictions.*

- A. No structure of any kind shall be constructed or erected, nor shall a Member in any way change, alter, impede, revise or otherwise interfere with the flow and the volume of water, in any portion of any water management area reserved for, or intended, by the Developer or the Community Association to be reserved for drainage or for the accumulation or retention of run-off waters, as reflected on the General Development Plan, without the specific prior written permission of the Community Association.
- B. The Developer shall in no way deny or prevent ingress and egress to such water management areas for maintenance or landscape purposes by the Community Association or any appropriate governmental agency that may reasonably require any right of ingress and egress, and easements therefore are hereby specifically reserved and created.

### **SPANISH WELLS COMMUNITY ASSOCIATION LAKE GUIDELINES**

In order to preserve a healthy balance of vegetation and wildlife, there are a few common sense rules and regulations which should be adhered to by property owners regarding our lakes:

- No chemicals, grass clippings or any foreign substances should be introduced into any lake or natural area.
- No boats or watercraft powered by gasoline or diesel fuel are permitted in any lakes.
- Fishing is prohibited in any community lakes.

- No swimming is allowed in any lake.
- No docks will be allowed in any lake, except as permitted by the Community Association.
- All areas not covered by structures, walkways, paved parked facilities, or areas approved by the Association to be left in their natural state shall be maintained by the owner thereof as lawn or landscape areas to the waterline of any abutting lakes, canals or Surface Water Management System. The lawn or landscape areas must be kept mowed and maintained to create a neat appearance.
- Property owners should not enter upon the marsh or wetland areas which are a part of the storm water management system.
- Flow ways, control structures and outfall pipes should be left clear and unobstructed. Property owners are not allowed to make any modifications or create any blockages to such flow ways.
- Introduction of fish and other animals, wild or domestic, is not allowed.
- In some areas, pathways are located on top of the spreader swale berms. Occasionally, after a heavy storm, storm water will discharge by sheet flow over the top of the concrete portion of the pathway. This overtopping should not be interfered with since it is an integral part of the storm water management system.

Our lakes are maintained to the highest level using professional aquatic management. There may be occasions when some visible algae or other aquatic weeds make an appearance. Virtually every lake in Spanish Wells will at some time show these signs. This occurrence is not a sign of an unhealthy lake, but a natural part of the lake system.

### **CITY OF BONITA SPRINGS FERTILIZER ORDINANCE**

The City of Bonita Springs adopted an ordinance in 2008 regulating landscape management practices including the application of fertilizer to reduce the introduction of excess nutrients into lakes and improve water quality. The requirements in the ordinance apply anyone who applies or sells fertilizer. *Section 7 A-G includes information specific to homeowners.*

#### **BONITA SPRINGS ORDINANCE NO. 8-23:**

*AN ORDINANCE REGULATING LANDSCAPE MANAGEMENT PRACTICES INCLUDING THE APPLICATION AND USE OF FERTILIZERS CONTAINING NITROGEN AND/OR PHOSPHORUS WITHIN THE CITY OF BONITA SPRINGS; PROVIDING FINDINGS; PROVIDING FOR PURPOSE AND INTENT; PROVIDING DEFINITIONS; PROVIDING FOR APPLICATION; PROVIDING FOR REGISTRATION OF PROFESSIONAL LANDSCAPING BUSINESSES AND INSTITUTIONAL LANDSCAPERS; PROVIDING FOR TRAINING AND*

*CERTIFICATION OF PROFESSIONAL LANDSCAPING BUSINESSES AND INSTITUTIONAL LANDSCAPERS; PROVIDING FOR MANDATORY BEST MANAGEMENT PRACTICES; PROVIDING FOR EXEMPTIONS TO LANDSCAPING BEST MANAGEMENT PRACTICES; PROVIDING EXEMPTIONS FOR AGRICULTURE, GOLF COURSES AND SPECIALIZED TURF; SALE OR FERTILIZER; PROVIDING FOR ENFORCEMENT AND PENALTY; PROVIDING FOR CODIFICATION AND SCRIVENER'S ERRORS; PROVIDING FOR CONFLICTS OF LAW; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE, INCLUDING ONE YEAR IMPLEMENTATION PERIOD.*

WHEREAS, the Florida Department of Environmental Protection has identified specific water bodies in Bonita Springs as "impaired" as a result of excess nutrients under the Florida impaired Waters Rule (*Chapter 62-303, Florida Administrative Code*); and

WHEREAS, surface water runoff containing excess nutrients leaves residential neighborhoods, farms, commercial centers, industrial areas and other lands of Bonita Springs with low permeability soils; and

WHEREAS, base-flow runoff containing excess nutrients flows from residential neighborhoods, farms, commercial centers, industrial areas, and other lands of Bonita Springs with high permeability soils; and

WHEREAS, surface water and base flow runoff containing excess nutrients enters into natural and artificial storm water and drainage conveyances and natural water bodies in Bonita Springs; and

WHEREAS, the detrimental effects of nutrient-laden runoff are magnified in a coastal community such as Bonita Springs, due to the proximity of storm water and drainage conveyances to coastal waters; and

WHEREAS, nutrient-laden runoff fosters plant and algae growth; and

WHEREAS, the quality of our bays, estuaries, streams, lakes, and the Gulf of Mexico is critical to environmental, economic and recreational prosperity and to the health, safety and welfare of the citizens of Bonita Springs; and

WHEREAS, recent red tide blooms, accumulations of red drift algae on local beaches and blue-green algae blooms in our freshwater systems have heightened community concerns about water quality and eutrophication of surrounding waters; and

WHEREAS, leaching and runoff of nutrients from improper landscaping or excess fertilization practices upstream of as well as within Bonita Springs can contribute to nitrogen and phosphorus pollution in the City's storm water and drainage conveyances and natural water bodies; and

WHEREAS, nitrogen and phosphorus pollution in the City's storm water and drainage conveyances and natural water bodies leads to the overgrowth of vegetation in these waterways, and

WHEREAS, Bonita Spring's natural and artificial storm water and drainage conveyances regulate the flow of storm water to prevent flooding; and

WHEREAS, the overgrowth of vegetation in storm water and drainage conveyances hinders the goal of flood prevention; and

WHEREAS, it is generally recognized that many Florida soils are naturally high in phosphorus; and

WHEREAS, it has been recognized by soil science professionals that the use of slow release nitrogen sources minimizes harmful nitrate leaching; and

WHEREAS, nitrogen from slow release sources is more likely to be used by plants and less likely to leach out or wash away in storm water runoff; and

WHEREAS, the Florida Department of Environmental Protection will mandate total maximum daily loads for “impaired” water bodies in Bonita Springs; and

WHEREAS, this ordinance is part of a multi-pronged effort by Bonita Springs to meet these total maximum daily loads and reduce nutrient loading into runoff through such policies as, but not limited to, basin management action planning, storm water management, water conservation, management of septic systems, public education, and development standards as set forth in the Bonita Springs Land Development Code and the Comprehensive Plan, incorporating the Southwest Florida Basin Best Management Practices (BMPs).

**\*\*Section Seven\*\*: Mandatory BMPs**

Timing of Application; Fertilizer Content and Application Rate; Impervious Surface; Buffer zones; Mode of Application; Low Maintenance Zones; Management of Grass Clippings and Vegetation Material.

A. Timing of Application

- No person, including homeowner’s and/or other property owners, shall apply fertilizers containing nitrogen and/or phosphorus to Turf and/or Landscape Plants during the rainy season (June 1 through September 30 of each calendar year).

B. Fertilizer Content and Application Rate

- No phosphorus Fertilizer shall be applied to Turf and/or Landscape Plants within Bonita Springs at application rates which exceed 0.25 lbs.  $P_2O_5/1,000\text{ ft.}^2$  per application nor exceed 0.50 lbs.  $P_2O_5/1,000\text{ ft.}^2$  per year.
- Fertilizers Applied to Turf and/or Landscape Plants within Bonita Springs shall contain no less than fifty percent (50%) Slow Release Nitrogen per Guaranteed Analysis Label.
- Fertilizers should be applied to Turf and/or Landscape Plants at the lowest rate necessary. No more than four (4) lbs. of nitrogen per 1,000  $\text{ft.}^2$  shall be applied to any Turf/landscape area in any calendar year.

### C. Impervious Surface

- Fertilizer shall not be applied, spilled or otherwise deposited on any impervious surfaces. Any fertilizer applied, spilled or deposited, either intentionally or accidentally, on any impervious surface shall be immediately and completely removed. Fertilizer released on an impervious surface must be immediately contained and either legally applied to Turf or any other legal site, or returned to the original or other appropriate container.

### D. Buffer Zones

- No fertilizer shall be applied in or within ten (10) feet from the top of bank of any water body, seawall, designated wetland or wetland as defined by the *Florida Department of Environmental Protection (Chapter 62-340)*.

### E. Mode of Application

- Spreader deflector shields are required when fertilizing by use of any broadcast or rotary spreaders. Deflectors must be positioned such that fertilizer granules are deflected away from all impervious surfaces and water bodies, including wetlands.

### F. Low Maintenance Zones

- A voluntary six (6) foot low maintenance zone is strongly recommended, but not mandated, from any pond, stream, water course, lake, wetland or from the top of a seawall. A swale/berm system is recommended for installation at the landward edge of this low maintenance zone to capture and filter runoff. If more stringent Bonita Springs Code regulations apply, this provision does not relieve the requirement to adhere to the more stringent regulations. No mowed or cut vegetative material shall be deposited or left remaining in the zone or deposited in the water.

### G. Management of Grass Clippings and Vegetative Material

- In no case shall any person wash, sweep or blow off grass clippings and/or vegetative material into storm water drains, ditches, conveyances, water bodies, roadways or other impervious surfaces.