

# Stormwater Management Plan



The City of New Smyrna Beach is an active participant and permit holder for the U.S. Environmental Protection Agency's (EPA'S) National Pollutant Discharge Elimination System (NPDES). According to the EPA's NPDES website, "Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges do directly to surface waters. In most cases, the NPDES permit program is administered by authorized states. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements to our Nation's water quality".

For more information click on the following links below:  
[www.cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm](http://www.cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm)  
[www.nrdc.org/water/pollution/nstorm.asp](http://www.nrdc.org/water/pollution/nstorm.asp)What is

## Stormwater?



Stormwater is water that runs off land as a result of rainfall. The amount of stormwater that is generated by rainfall is dependent on the amount and intensity of rainfall, the amount of development, and the soils. As development occurs, more stormwater is generated, and a stormwater management system must be put into place to prevent flooding. Older stormwater management systems generally collect stormwater in pipes and ditches and directly discharge to a natural waterway. Newer stormwater management systems usually store and treat stormwater before discharging to a waterway. Both types of systems help prevent flooding, however, the older systems often contribute to water quality problems in the waterways.

The City of New Smyrna Beach Stormwater Management Plan balances the need for flood prevention and management with the protection of the waterways.

## Background:

The stormwater management system for the City of New Smyrna Beach has a long history. Some of the earliest canals date back to the time of Andrew Turnbull. Since that time drainage improvements have been put in place as development has occurred and New Smyrna Beach now has a complex and wide-reaching management system.



These drainage systems provide an important service to the residents of New Smyrna Beach. Water is moved off of streets and yards to prevent flooding and modern systems, constructed since 1980, treat stormwater before discharge to a waterway. Unfortunately, not all systems were designed to meet current standards and the current level of development. These areas require some upgrade to meet the City's Level of Service. The LOS set by the City is an allowable level of flooding for a set amount of rainfall. In Florida it is impossible to prevent flooding all of the time and it is expected that there will be some road and yard flooding during heavy rainfalls. The goal of the LOS is to prevent home flooding during all rainfall events.



### Storm Water Utility:



Similar to drinking water, supplying stormwater management to the residents of New Smyrna Beach requires operation, maintenance and improvement. The Stormwater Utility is the program by which this management is completed. Activities completed under this program include, pipe cleaning, street sweeping, replacement of failing systems, ditch maintenance, and construction to improve drainage and reduce impacts on waterways. To pay for these activities a stormwater utility fee is collected from property owners. Unlike drinking water it is more difficult to measure each property owners contribution to the stormwater system. The measurement used is based on Equivalent Drainage Unit (EDU). For residential customers one home is equal to one EDU. For other property owners the number of EDUs charged is dependent on the amount of building and paved area on the property. The fees collected go to support a program that benefits all residents of New Smyrna Beach. This program not only improves individual flooding areas, but also help to maintain good drainage on the roads to your home or business, and helps maintain clean waterways.



### Benefits?

#### Flood Reduction

The most obvious benefit of a stormwater management system is flood reduction and prevention. By maintaining and improving the function of systems, impacts and inconveniences from flooding can be minimized.

### Water Quality



By treating existing stormwater outfalls, the amount of pollutants that end up in the stormwater system, and eventually end up in our waterways can be reduced. This helps the Lagoons to continue to be a valuable economical and recreation resource for the community.

## Recreation



Stormwater projects can often be combined with recreational uses. Stormwater ponds can be park amenities as well as wildlife habitat.

### What Can Be Done To Help?

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#### Stormwater Management for Residents & Businesses of New Smyrna Beach

Residents can do things on their own property and within their community to protect drainage systems and reduce stormwater pollution to our waterways. Businesses can do things to protect drainage systems and reduce stormwater pollution to our waterways.

**Don't Pollute** - Don't use roads, inlets and ditches to dispose of waste. Litter, yard debris, waste oil, and other waste disposed in these areas will eventually pollute our waterways.

**Protect Drainage** - Don't block inlets, pipes, ditches, or swales. Drainage systems in front of or behind your home may prevent roads or your home from flooding. Please do not block or fill in any drainage way.

**Take Action** - Make your property environment friendly. Don't over fertilize or over water. Plant xeriscape landscaping. Clean up pet waste. Make your own compost. Install a cistern.

**SPILLS** - Report fuel and chemical spills to the New Smyrna Beach Fire Department so that it can be safely cleaned up

**Volunteer** - Get involved in the adopt-a-highway program. Volunteer for the annual Indian River Lagoon clean-up. **Employee Training** - Teach your employees about the proper disposal of waste materials. Take advantage of the State's Construction Site Stormwater Training Program.

**Remember, All Canals and Inlets lead to the Lagoon!**



#### POLLUTION:



Nutrients and suspended material come from roadways, yards and other sources of stormwater. During heavy rains, hundreds of pounds of this material are flushed into the Indian River Lagoon where it reduces the quality of the aquatic habitat.

#### DRAINAGE:



The primary purpose of the City stormwater system is to provide drainage of runoff from roads and yards. The City's system consists of pipes, inlets and canals that protect homes and roads from flooding. A stormwater utility has been put into place to maintain and improve the function of the stormwater system.

**More Information:**

*The Florida Yards & Neighborhood Handbook and The Florida Yardstick Workbook outline residential best management practices.*

*They are available locally at the City of New Smyrna Beach City Hall, 210 Sams Ave, New Smyrna Beach, FL 32168 (386)424-2100*