

# Stormwater Management Program

## Stormwater

**Stormwater**- is the water from rain, snow, and sleet that travels down our gutters into the storm drain. Stormwater flows directly into our rivers, lakes, and streams. It is almost never treated, so everything stormwater collects from the land surface, roadways, sidewalks, parking lots, construction sites, business parks, etc., is carried to gutters, storm drains, canals, drainageways, and finally ends up in our local rivers and streams. It is estimated that more than 1/2 of the pollution in our nations waterways comes from stormwater runoff.

### Stormwater Maintenance

The Public Works Department provides stormwater protection with maintenance and construction of the drainage facilities throughout the city. Street sweeping is provided regularly to insure the reduction or elimination of dirt or leaves that enter the drainage system. Leaves and grass create organics that create algae blooms in our lakes. These blooms are not aesthetically pleasant to view and are bad for the aquatic life.

### Drainage Facilities

Drainage facilities are man-made structures designed to collect, divert or discharge stormwater such as ditches, culverts, and retention ponds. We routinely clean the ditches and culverts, sweep the streets, and mow the retention ponds to ensure that the city's stormwater management functions properly.

### Illegal Discharges into the Stormwater System

The dumping, spilling, or discharging of any non-stormwater material to any surface area or stormwater management system is prohibited without prior written approval from the city. NOTE: This includes emptying of swimming pools into the drainage system.

### Alterations Or Obstructions To Stormwater System

Changing or blocking any stormwater management system in the City, including pump stations, sewer lines, structural controls, catch basins, culverts, wetlands or swales is prohibited without prior written approval of the city.

**The Marco Island Stormwater Management Plan can be viewed by downloading the linked file at the bottom of this page.**

## Swales

Swales are the strip of land usually located in front of a house between the sidewalk and the street. Even though you may have never stopped to think about it, swales have an important role in the protection of our environment and the beauty of our City.

Swales provide two important roles. First, they are a natural drainage area for rainwater that falls on streets, driveways and sidewalks. Second, they help protect our environment. While removing the rainwater from the road, the run-off picks up the oil, pesticides and lawn fertilizers that collect between the rain storms. The swales naturally filter out and reduce these pollutants, decreasing their loading on groundwater resources. Otherwise, these pollutants would eventually end up in our canals, lakes, and ocean.

This is why swales should be kept grassy or covered with ground cover approved by the City. Also, by keeping the swales in their natural state adds beauty to our City thereby increasing property values. No gravel, shell, or loose material is permitted in the swale area. Swales paved with asphalt or built up with dirt can cause health, environmental, and aesthetic hazards. Rain water can collect and stagnate or may run off the paved surface, picking up leaves, litter, animal waste, oil, etc., that will contaminate our water resources.

Homeowners are required to maintain the swales around their property in good condition helping us to protect our canals and waterways. To ensure the swale areas stay in good condition, simply follow a few basic guidelines:

- Keep your Swale free of leaves, limbs and any other debris. Dispose of debris and oil properly, instead of placing them in your swale.
- Avoid parking vehicles on the swale. This will allow the grass to grow healthy and keep the soil loose so water can filter and soak into the ground more easily.
- If you have to pave your swale for driveway access, pave just the section you need and leave the rest in its natural state. Remember that paving over a swale requires a City permit, since pavement is considered a permanent structure.
- Landscaping your swale area can be pleasing to the eye, but it also disrupts the natural drainage qualities of the swale. Consider landscaping behind your property line you will still add beauty to your home while keeping the swale in its natural state. All landscaping within the swale

areas shall be in accordance with established procedures approved by the City.

## **Litter, Littering Material**

The accumulation, placing, sweeping, scattering, throwing, or dumping of litter, or littering material such as dead plants, yard clippings, stagnant water, rubbish, debris, trash, including any wrecked derelict or partially dismantled motor vehicle, trailer, boats, machinery, appliances, furniture or similar article, or any unsanitary, hazardous or significant material upon any surface area, stormwater management system or water body within the City is prohibited.

## **Erosion Control**

The State of Florida's stormwater regulatory program requires the use of Best Management Practices (BMPs) during and after construction to minimize erosion and sedimentation and to properly manage runoff for both stormwater quantity and quality. In order to facilitate such practices the Department of Environmental Protection has developed a training program curriculum and manual on the use, installation, and maintenance of erosion, sedimentation, and stormwater BMPs. This manual is designed to be a comprehensive reference source for the conduct of daily professional duties during and after construction. Click on the link below to access the Stormwater, Erosion, and Sedimentation Control Inspector's Manual.

For more information on Erosion Control, [Click Here](#)

## **National Pollutant Discharge Elimination System (NPDES)**

In 2000 the U.S. Environmental Protection (EPA) authorized the Florida Department of Environmental Protection (DEP) to implement the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program in the State of Florida. The program regulates point source discharges of stormwater runoff by small municipal separate storm sewer systems (MS4s).

Under the NPDES stormwater program, operators of large, medium and regulated small MS4s require authorization to discharge pollutants under an NPDES permit. Medium and large MS4 operators are required to submit comprehensive permit applications and are issued individual permits. Regulated small MS4 operators have the option of choosing to be covered by an individual

permit, a general permit, or a modification of an existing Phase I MS4's individual permit.

The definition of medium and large MS4s is dependent on the size of the population in the area where the system is located. Generally, a medium MS4 is a system that is located in an area with a population between 100,000 and 249,999; while a large MS4 is a system that is located in an area with a population of 250,000 or more.

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants in to waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. In most cases, the NPDES permit program is administered by FDE.

**For information on the National Pollutant Discharge Elimination System (NPDES), [Click Here](#)**

## **Nonpoint Source Pollution**

In the past, it was thought that water pollution was caused mainly by industrial and municipal wastewater treatment plant discharges. A lot of effort was put into cleaning up these "point sources" of waste water. Now, the effort is being expended to clean up nonpoint source pollution, water pollution that is generated all over and carried to rivers and streams in pipes and ditches. The problem with nonpoint source pollution is that it is very expensive to treat and discharge. Treatment facilities would have to be very large to treat storm peak flows and would sit unused more that 95% of the time. The best way to improve stormwater quality is to treat the source and don't let runoff get polluted in the first place. These methods are called Best Management Practices (BMPs).

**For information on the Nonpoint Source Management Program, [Click Here](#)**