Stormwater Pollution ... What it is and what can we do about it

From Naval Facilities Engineering Command (NAVFAC) Southeast Public Works Department (PWD) Gulfport Environmental

NCBC Gulfport has a National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) Permit (No. MSRMS4) that requires the base to develop, implement, and enforce a Storm Water Management Program (SWMP) to reduce the discharge of pollutants from the MS4.

What is stormwater pollution?

Urban areas create problems with both water quality and quantity. When impervious surfaces in an urban area cover more than 10 percent of the land surface in a watershed, without Best Management Practices (BMPs), the streams begin to degrade. Impervious surfaces prevent rainwater from infiltrating into the ground, thus creating large volumes of surface runoff. Many urban areas have a storm drain network to carry runoff away rapidly to the nearest stream.

Stormwater pollution happens when rainwater that has landed on a home, property or construction site leaves your control and is impacted by trash, excess fertilizers, sands and silts, grass clippings, or washed off oils from driveways or parking lots.

Common sources of stormwater pollution include:

~ Heavy metals from transportation areas
~ Excess nutrients from over application of fertilizers around homes, golf courses, and parks
~ Petroleum products from spills and leaks
~ Bacteria and pathogens from pet waste and leaking sewer system
~ Trash thrown into streams or washed off streets into storm drains
~ Sediment from construction

In addition, stormwater pollution can be introduced from point sources like a factory or a plant nursery, and from non-point sources like parking lots and public streets.

What does the MS4 Permit require?

As federally mandated, NCBC Gulfport is to develop and implement a stormwater management program, evaluate and assess the program, and submit periodic reports. Six minimum control measures are to be implemented under Phase II Stormwater Permits:

~ Public education and outreach
~ Public involvement and participation
~ Illicit discharge detection and elimination
~ Construction site stormwater runoff and control
~ Post-construction stormwater management in areas of new development and redevelopment
~ Pollution prevention and good housekeeping

What is a Best Management Practice (BMP) and how can it help me prevent stormwater pollution?

A BMP is a set of guidelines or rules that tells you how to approach certain situations and prevent certain problems. BMPs are generally divided into two groups, Structural (where you build something) and Non-Structural (where you change the way you do something). Structural examples include:

~ **Retention Ponds** – allow sediments to settle and water to infiltrate the ground
~ **Temporary Sediment Basins** – allow sediments to settle and control the flow of stormwater
~ **Entrance/Exit Controls** – reduce the amount of soils transported onto paved roads
~ **Silt Fencing** – prevents loose soils from entering waterways prior to being stabilized with vegetation
~ **Berms** – physically prevents runoff from entering storm drains and waterways

Non-structural examples include:

~ **Stabilization** – sodding, seeding, mulching and stone cover to prevent erosion
~ **Phased Construction** – minimize the amount of land cleared at one time, schedule the work for the dry season
~ **Good Housekeeping** – oil and fuel containment, spill prevention and cleanup, street sweeping, preservation of pre-existing vegetation, proper disposal of yard waste

So how can you prevent stormwater pollution?

The easiest and most effective way is to follow BMPs developed for your facility. The NCBC Public Works Department, Environmental Office, can help you select the most cost effective BMPs to address you individual needs.

What can I do to reduce the amount of stormwater pollution I contribute?

The most important thing you can do is to get involved and utilize the BMPs developed for your facility. There are BMPs that cover Household/Construction Site Preparation and Maintenance, Surface Stabilization, Runoff Conveyance, Sediment Control, Outdoor Maintenance Activities and many others.

Why are BMPs required?

According to the State and Federal Regulations, BMPs are an integral part of the mandated Stormwater Management Program developed for your Municipal Separate Storm Sewer System (MS4). The purpose of the Stormwater Management Program is to reduce stormwater pollution and protect the environment for future generations.

Who is required to implement BMPs?

As stated above, your base is required to implement a Stormwater Management Program, which will include a host of BMPs. In addition, if you construction activity disturbs more than ONE acre of land, you are required to obtain a Stormwater Permit, and that permit will require the implementation of BMPs on your site to prevent stormwater pollution from your construction activities.

Where can I learn more about Preventing Stormwater Pollution?

For information specific to NCBC Gulfport, please contact the Public Works Department, Environmental Division, located in Building 322 at 2401 Upper Nixon Avenue, Gulfport, MS 39501, 228-871-2373/228- 822-5938 or http://www.cnic.navy.mil/regions/cnrse/installations/ncbc_gulfport/om/environmental_support.html. For additional information concerning Mississippi Stormwater programs, please contact the Mississippi Department of Environmental Quality (MDEQ) at: 515 E. Amite Street, Jackson, MS 39201, 601-961-5171, Toll Free 888-786-0661 or http://www.deq.state.ms.us