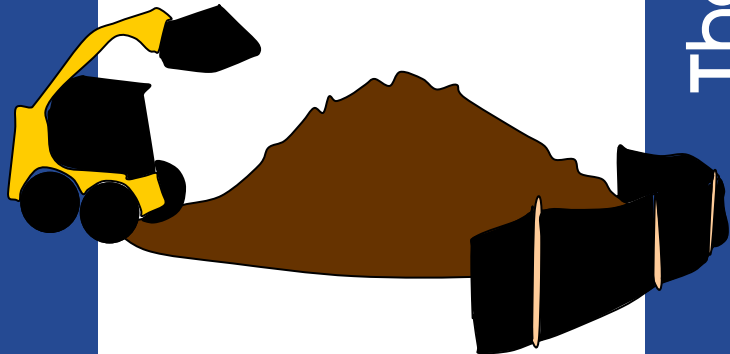The National Pollutant Discharge Elimination System (NPDES) permit is a program through the Environmental Protection Agency that requires Carroll County to address water quality by performing tasks in the following areas:

Public Education/Outreach: Inform citizens through the distribution of educational materials about the impact of pollution on water quality

Public Participation/Involvement: Involve citizens in program implementation and activities such as storm drain stenciling, stream clean-ups, and representative involvement

Illicit Discharge Protection/Elimination: Develop and implement a plan to eliminate illicit discharges to the storm drain system, develop a system map of the storm drain network, and inform the community of hazards associated with improper disposal of waste

Construction Site Runoff Control: Develop and enforce a pollution control program for construction activities that disturb 5,000 sq. ft. or more of land by implementing temporary sediment basins, detention ponds, and other stabilization methods

Post Construction Runoff Control: Develop and enforce a program that addresses discharges of post–construction stormwater runoff from new development and redevelopment areas

Pollution Prevention: Develop and implement a program to address possible discharges from municipal operations

For more information about the NPDES permit, green infrastructure, and BMPs, visit http://ccgovernment.carr.org/ccg/plan/npdes/.
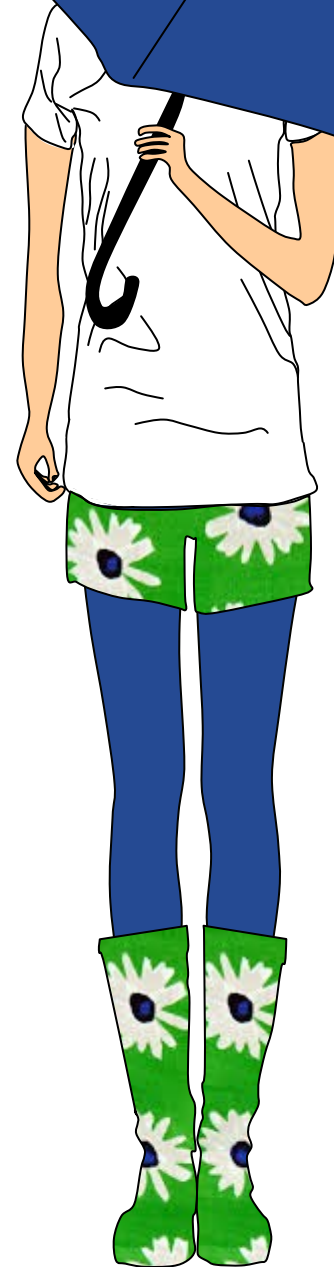
The information in this brochure has been compiled using information from alliance-forthebay.org and epa.gov.

**Carroll County Department of Land and Resource Management
Bureau of Resource Management**

**225 N. Center Street
Westminster, MD 21157
410.386.2506
ccgovernment.carr.org/ccg/resmgmt**

The NPDES Permit

The NPDES Permit... continued

LET'S TALK

STORMWATER

Stormwater is any type of precipitation that falls on your car, your house, your school, your yard, etc. and washes into the nearest stream, river, and/or any other water body along its path.

As it trickles along, it picks up pollutants and toxins accumulated on roadways and other surfaces and carries them straight into our water supply, **contaminating the water sources we use to swim, fish, and even drink.** Eventually, all of these pollutants wash into the Chesapeake Bay.

Where do pollutants come from? Pollutants originate from a variety of sources such as fertilizers, car oil and grease, faulty septic systems, livestock waste, and other untraceable sources, hence the term "Non-point Source Pollution."

Remember all that salt sprayed on the roads during winter? As it rains, the stormwater washes the salt right into our local streams, watersheds, and ultimately, the Chesapeake Bay. According to the Environmental Protection Agency, stormwater pollution is responsible for about 10 percent of nitrogen, 31 percent of phosphorous and 19 percent of sediment in the Bay.
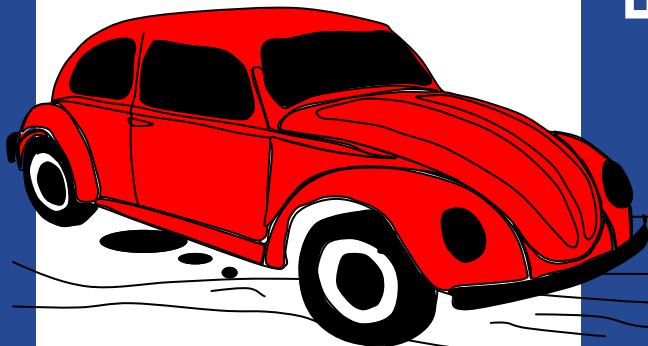
Best Management Practices, or more commonly referred to as BMPs, are techniques used to control water pollution. The most popular stormwater BMP in Carroll County is the **stormwater pond**, or **detention basin**, which is an artificial pond that collects and filters stormwater before it enters the stream. As runoff flows along the sidewalk, it's funneled into a storm drain, or inlet which allows excess rain and stormwater from streets, roofs, sidewalks, and other impervious surfaces to drain into a stormwater pond. It is then detained in the belly of the pond until it filters through a layer of sand, soil, and gravel, shedding nitrogen, phosphorous, and other pollutants before entering the stream channel.

Other popular BMPs used in Carroll County are **planting trees** and riparian buffers. Tree plantings not only filter stormwater and remove unhealthy pollutants, but they also provide habitat.

Riparian buffers, which are vegetated areas along the stream bank, provide shade and regulate stream temperature. Riparian buffers also protect the stream from adjacent land use and prevent erosion and sedimentation.

Inlet
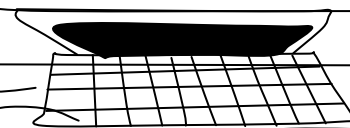
Green infrastructure is a low impact BMP that protects, restores, and mimics the natural water cycle using natural ways to control stormwater pollution. Green infrastructure is effective, economical, and **enhances community safety and quality of life.**

At the local level, green infrastructure practices include rain gardens, permeable pavements, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting systems. On a larger scale, the preservation and restoration of natural landscapes (such as forests, floodplains and wetlands) are critical components of green infrastructure.

Types of green infrastructure include: downspout disconnection, rainwater harvesting, rain gardens, planter boxes, bioswales, permeable pave- m e n t s , green alleys and streets, green parking lots, green roofs, urban tree canopy, and land conservation.