



**Outdoor Education Center**



# Rain Barrels

## **Infiltration! Infiltration! Infiltration!**

In spite of many efforts to clean up the Chesapeake Bay and its tributaries, our waters continue to be polluted. There are many contributing factors to water quality, however, in Anne Arundel County; the vehicle carrying pollutants to our waterways is storm water.

Did you ever think about what happens to a raindrop that falls in the Chesapeake Bay watershed? It may land on a tree or other vegetation and evaporate in the hot sun. It may fall in a farm field or forest and be absorbed by plant roots. Or, it may land on *impervious* surface such as roof tops and roadways and travel down the street to a storm drain. Any rainwater in an urban or suburban area that does not evaporate or infiltrate into the ground is considered storm water. On its way to the storm drain, rain first gathers nutrients and other chemical contaminants from our air. It then travels over yards, parking lots, roads, golf courses and other *impervious* surfaces where it picks up additional nutrients, sediment and other pollutants. As the storm water travels over impervious surfaces it increases greatly in surface volume, speed, and force. This polluted water travels via storm drains to the nearest stream and ultimately to the Bay. Storm water also causes flooding, stream bank erosion, and reduced ground water.

So, what can you do to save the Bay? **Infiltrate! Infiltrate! Infiltrate!** In order to have infiltration, storm water must be slowed down so that it may soak into the ground. Infiltration allows storm water to be filtered by plant roots and micro-organisms living in the soil before it is discharged into streams as cool, clean ground water. Lowering the volume of surface water also reduces stream bank erosion, habitat destruction and flooding.



## **How a rain barrel works**

The downspout from your gutter is intercepted by using a flex tube (not included in your order). The water is stored in the barrel (55 gallons) and then released at a slow rate using a bottom valve. A hose or soaker hose can be connected. There is also an overflow hose which can be inserted in an existing drain or it can be directed away from your barrel. The spigot is optional to drain water off your barrel in a bucket or watering can.

## **How many barrels do I need?**

1,000 square feet (about the size of a small house) of rooftop produces 632 gallons in a summer storm. Don't worry, you don't have to catch every drop, but every drop counts. The first flush carries the most contaminants. Your gardens will love it.

## **What maintenance is involved**

Once a month you should clean the screen. Once a year you should flush the barrel. During the winter you should open the bottom drain and disconnect any hoses.