

# STORM DRAIN FACTS FOR LANDSCAPERS

## ONLY RAIN DOWN THE STORM DRAIN

### Introduction

The County of Roanoke has a Municipal Separate Storm Sewer System (MS4) program to protect and improve water quality in its receiving waters, which includes the Roanoke River and all of its tributaries. Currently, many of these waters are impaired due to excess levels of sediment, bacteria, and PCBs.

Many pollutants, such as leaf and grass clippings, sediment from bare lawn areas, and nutrients from fertilizers end up in the storm drain system where they are carried - UNTREATED - to the nearest receiving waters.

As part of the County's efforts to protect and improve local receiving waters, business owners and residents alike are being asked to take a proactive part in protecting water quality and to become part of the bigger effort to clean up these waterways. By following just a few Best Management Practices (BMPs) in your day-to-day operations, you and your employees can make a difference in the quality of stormwater runoff and the receiving waters into which it drains, all while still giving your customers great service and lush, beautiful lawns.

### Maintain and enhance natural waterways.

- Avoid clearing, grading, and fertilizing directly adjacent to waterways.
- Avoid dumping or blowing grass clippings and leaves into waterways, storm drains, curb and gutter systems, ditches, and detention ponds.
- Plant native vegetation along drainage-ways to prevent erosion.

### Implement alternative lawn maintenance practices.

- Install grass alternatives like ground cover, plants, shrubs, perennials, and trees to decrease runoff and pollutants (like fertilizer and herbicide), especially in areas with highly erodible soils and steep slopes.
- Utilize slow release fertilizer or till in some compost on lawns.
- Test the soil every year to ensure that the correct amounts of soil amendments are being used.
- Encourage the use of a Nutrient Management Plan, which is tailor-made for each lawn and details how much fertilizer to use and when to use it.

### Reuse or re-direct rainwater to reduce runoff.

- Rain barrels attached to roof downspouts capture rain for later use to water lawns, gardens, trees, shrubs, and other plants.
- Reuse of rainwater decreases the amount of stormwater, nutrients, sediment, and other pollutants that eventually flow to local creeks, streams, and rivers.
- Directing runoff from rooftops, concrete, asphalt, and other impervious areas to lawn areas, instead of into storm drains, minimizes runoff and enhances groundwater recharge.



**RAIN BARREL** - Picture Courtesy of <http://www.epa.gov/epawaste/conserve/rrr/greenscapes/asla-06.htm>

### POLLUTANTS THAT ENTER HERE . . .



### END UP HERE !



### Utilize proper erosion and sediment (E&S) controls during land disturbing activities, including landscaping projects.

- Sediment from erosion clouds waterways, preventing the growth of aquatic grasses; this adversely affects all other life in such waters.
- Mudlick Creek, Mason Creek, and the Roanoke River are all currently impaired due to sediment. Without proper E&S controls, other local waterways may become similarly impaired from excessive sediment.
- Although your landscaping project may not require an Erosion and Sediment Control plan or a land disturbance permit, it is still important to utilize E&S measures to prevent erosion.
- Employ these BMPs to prevent erosion and protect local receiving waters: (1) install silt fence around bare areas, (2) cover dirt or mulch stockpiles when not being used, and (3) install straw mulch or matting over newly seeded areas.

### Report Illicit Discharges to the storm drain system on this website:

<http://www.roanokecountyva.gov/index.aspx?NID=306>. Click on "Report Illicit Stormwater Discharges" and provide a specific location (address of nearest residence) and any other appropriate information.

To learn more about the harmful effects of illicit discharges on the area's receiving waters, see the County's various public education videos, entitled *Illicit Discharge, Detection and Elimination - A Grate Concern*, at: <http://www.roanokecountyva.gov/index.aspx?NID=1598>.

### For questions contact:

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