

# Tips for Homeowners

# Stormwater Best Practices

## 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 from lawns, 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.

Also, new paved surfaces like rooftops, driveways, and sidewalks associated with the construction of new homes and businesses cause an increase in the volume and velocity of stormwater runoff, because rainwater cannot percolate through such hard surfaces. The result: more flooding and erosion damage on neighboring properties and in local creeks, streams, and rivers.

As part of the County's efforts to protect and improve its local waters, like the Roanoke River, 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) on your residential lot, you can make a difference in the quality of stormwater runoff and the receiving waters into which it drains and still have a beautiful new home, complete with a lush, green lawn.

## Minimize Stormwater Runoff

To help slow down and decrease the volume of runoff from your property, consider implementing one or more of the following:

- Minimize paved areas.
- Mulch all flower beds.
- Build a rain garden planted with ornamentals.
- Keep lawn areas thick and healthy.
- Convert concentrated runoff from downspouts to sheet flow by directing it to well-vegetated areas, not pavement.
- Where feasible, grade lots to drain toward undisturbed, naturally-vegetated areas, like woods or meadows.

## Maintain and Enhance Natural Waterways

- Avoid clearing, grading, and fertilizing directly adjacent to waterways.
- Avoid dumping 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.

## Reuse / Re-direct Rainwater

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



**RAIN BARREL**

Photo source: <http://www.epa.gov>

## Utilize Proper Erosion and Sediment (E&S) Controls for Residential Land-disturbing 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 use of proper E&S controls for land-disturbing projects, 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 to protect 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.

## Implement Alternative Lawn Maintenance Practices

- Install grass alternatives like ground cover, plants, shrubs, trees, and perennials 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.
- Use a Nutrient Management Plan, which is tailor-made for each lawn and details how much fertilizer to use and when to use it.



**For questions or more information, contact:**  
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