

# 10 Tips to Control Stormwater

1. Turn gutter spouts to drain onto the lawn, instead of down the driveway.
2. Wash cars on the lawn instead of the street or driveway. The soil filters oils and other toxic fluids from the water preventing them from reaching stormwater drains which lead straight into Shallowbag Bay.
3. When washing cars or pets outdoors, use soaps and detergents labeled phosphate free or biodegradable. The safest products for the environment are vegetable based or citrus based soaps.
4. Maintain the swales and ditches in yards to catch stormwater instead of letting it run off into the street.
5. Place houseplants onto your porch or driveway during a rain event. This will capture a small amount, and save you in watering costs.
6. Clean up pet outdoor solid waste. Use plastic bags, provided conveniently by the town, to pick up the waste. This will prevent effluent from flowing into the bay.
7. Do not clean outdoor spills with water. Use dry cleanup methods such as applying cat litter or another absorbent material.
8. Sweep off sidewalks, driveways, and patios instead of hosing them down. Hosing wastes water and carries contaminants into rivers and Shallowbag Bay.
9. Monitor vehicles for leaks.
10. Follow the directions on pesticides and fertilizers and don't use them if rain is predicted, if you must use them at all.



## Albemarle Ecological Field Site

The Albemarle Ecological Field Site is an extension program of UNC Chapel Hill. This year as a Capstone Project the 12 students involved are working towards a goal of stormwater awareness and mitigation in Manteo, NC.

## Albemarle Ecological Field Site

# MANTEO STORMWATER MITIGATION GUIDE

*Help Keep Shallowbag Bay Clean!*



# STORM WATER MITIGATION TECHNIQUES TO IMPLEMENT ON YOUR PROPERTY



## CISTERNS AND RAIN BARRELS:

Cisterns and rain barrels capture rainwater flowing from the roof, which otherwise would collect on the lawn or contribute to runoff.

Cisterns and rain barrels store the rainwater for future uses including irrigation, toilet flushing, vehicle washing, and drinking water. The main difference between a rain barrel and a cistern is size; cisterns are capable of storing higher quantities of rainwater than rain barrels.

### ADVANTAGES:

Stores rainwater on property.  
Monetary savings on water use.

### DRAWBACKS:

Dependent on rainfall. Requires treatment for use as drinking water.

## PERMEABLE PAVEMENT:

Traditional paved surfaces of either concrete or asphalt do not allow any water infiltration; instead, these impervious surfaces convert all rainfall into stormwater runoff. Permeable pavement, unlike its alternatives concrete and asphalt, allow some precipitation to infiltrate through the pavers into the soil below. Permeable pavement, according to a NCSU study, works best in the Sand Hills and the Coastal Plains where the soil is capable of sufficient infiltration. Permeable pavement offers multiple options in terms of aesthetics and costs, including porous concrete, porous asphalt, concrete grid pavers, gravel, and interlocking concrete pavers.

### ADVANTAGES:

Increases the water capture on property.  
Reduces percentage of pollutants in stormwater runoff.

### DRAWBACKS:

Must assure pavement is not clogged by sediment; however, sand is usually not a concern.  
Costs 25-100% more than traditional paving.



## RAIN GARDENS:

Rain gardens intercept stormwater that would otherwise run off roofs and driveways to flood roads and drains. They also increase the quality of waters through the gradual filtration of stormwater pollutants. Rain gardens utilize ample spacing between native plants to allow UV degradation of harmful bacteria.

Rain gardens are attractive as well as low maintenance due to their use of native plants that can withstand periods of inundation and drought. They are dug 4-8 inches lower than the surrounding land so that excess water can be cleaned and drained before the polluted waters enter rivers. To grow a rain garden, excavation, planting of native plants, and mulching is required.

