

# What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like roof tops, driveways, sidewalks and streets prevent stormwater from soaking into the ground. Instead, it flows to the nearest body of water or storm drain.

## What's the big deal?

As stormwater travels along to the storm drain, it picks up and carries lawn fertilizers, pesticides, eroded soil, pet waste, litter, motor oil and other chemicals from streets, lawns and parking lots. Stormwater drainage systems empty this water directly into streams, lakes, rivers and coastal waters with no treatment process in between. Anything that enters a stormwater system eventually flows untreated into the same water we use for swimming, fishing and drinking.

## Why should I care?

Polluted stormwater runoff is harmful to people, animals, fish and plants in the following ways:

**Bacteria and other pathogens can flow into swimming areas, creating health hazards and causing closures.**

**People and animals become sick from eating fish or shellfish that have been contaminated by hazardous wastes such as pesticides, paint, solvents, used motor oil and other auto fluids.**

**Polluted stormwater often affects drinking water sources resulting in increased water treatment costs.**

**Debris like plastic bags, six-pack rings, bottles and cigarette butts that wash into waterways can injure, choke or suffocate ducks, fish, turtles and birds.**

**Nutrients from fertilizers cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. This results in fish kills.**

**Sediment clouds water, making it impossible for aquatic plants to grow and destroying aquatic habitats.**

## Stormwater Awareness:

### How do I get involved?

You can become involved by reporting illegal dumping and incidents of wastewater and sanitary sewage discharge flowing into stormwater collection systems and roadside ditches. Your assistance will help protect and improve North Carolina's water quality. To submit a report, contact the N.C. Department of Transportation at 1-877-DOT-4YOU. For more information regarding pollution prevention, visit the NCDOT Highway Stormwater Program Web site at [www.ncdot.org/programs/environment/stormwater](http://www.ncdot.org/programs/environment/stormwater).

The N.C. Department of Environment and Natural Resources, Division of Water Quality provides stormwater outreach, education and information to local governments, community groups, educators and residents. To learn more, visit: [www.ncstormwater.org](http://www.ncstormwater.org).



## Stormwater Pollution:

### What's our connection?



Photos courtesy N.C. Division of Water Quality and N.C. Cooperative Extension. 48,000 copies of this brochure were printed at a cost of \$4,000.00 or \$0.08 per copy. PRINTED ON RECYCLED PAPER



## How can I make a difference?



Wash your car on the grass or gravel instead of the street or driveway. Better yet, take it to a car wash that recycles water.

Keep your car checked for any kind of leaks, including motor oil, brake fluid and anti-freeze.

Dispose of used auto fluids and batteries at designated drop-off or recycling locations.



Direct gutters and downspouts to a lawn, garden or vegetated area instead of to the street, ditch or driveway. This will help the water soak into the ground instead of becoming stormwater runoff.

Consider using a rain barrel or cistern to collect rainwater for use during dry weather.

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint and solvents. Never pour them onto the ground or into storm drains.

Contact your local city or county government for information on drop-off and recycling centers for these items.

For a list of locations, visit [www.RE3.org](http://www.RE3.org).

Don't fertilize your lawn unless it needs it. You'll protect water quality and save money. Contact your local Cooperative Extension office to learn about their free soil testing program.

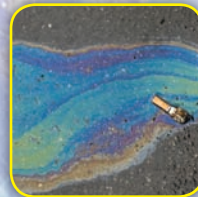


Don't apply fertilizer if rain is in the forecast.

Use pesticides sparingly and according to label directions. Consider avoiding their use altogether.

Compost or mulch yard waste. Sweep up and remove yard waste from the driveway, sidewalk and street to keep it from entering a storm drain.

Never throw trash on the road, including cigarette butts.



When hauling cargo, be sure to secure your load.



Left: NCDOT dry detention basin installed near Dillsboro captures stormwater runoff and allows time for the ground to adsorb it.



When walking your pet, always pick up the waste and dispose of it in a trash can.

**One quart of oil can ruin the taste of 250,000 gallons of water.**

## What is the North Carolina Department of Transportation doing about water pollution?

The N.C. Department of Transportation (NCDOT) is doing its part to reduce water pollution from stormwater runoff. The NCDOT Highway Stormwater Program helps reduce pollution from stormwater runoff by using best management practices. These practices include identifying and standardizing the most effective control measure for addressing contaminants in stormwater runoff. These contaminants include sediment, oils, grease, fertilizers and other small particles and fluids washed from surfaces during rain storms. In addition, the state's waterways can be polluted by contaminants which are illegally dumped or discharged onto the state's roadways. As part of the Highway Stormwater Program, residents and NCDOT employees can help monitor and report sources of pollution along roadsides.



The N.C. Department of Transportation's methods are good housekeeping practices similar to the ones you would use in your own home to minimize pollutants and keep surfaces clean. NCDOT also constructs stormwater treatment devices that help settle and filter contaminants out of the water. When visiting highway rest areas, you'll also see pet waste stations and educational signs where stormwater best management practices have been installed.



**No Wetlands - No Seafood**  
After heavy rains, there is frequently an increase in shellfish bed closings due to polluted stormwater runoff.

## Know Where It Goes

