

# What Is Stormwater?

## The Pavement Effect

Have you ever noticed water flowing down the street when it rains? Have you ever wondered where the water flows to? Have you thought about what's in the water?

When it rains onto a forest or a field, some of that rain is absorbed by the ground, replenishing groundwater that is used by many for drinking water. Some of the rain is taken up by plants, and some of it simply evaporates. But very little of the rain flows over the ground.

In a more developed setting, such as our cities and towns, rain falls onto pavement, or other surfaces such as roofs, sidewalks, parking lots, and driveways that don't allow the water to be absorbed by the ground. The water that you see flowing down the street is called storm water runoff.

## It's Not Just Rain

When storm water hits the pavement, it picks up and mixes with what's there. That might include:

- oil, grease, and automotive fluids
- fertilizer and pesticides from gardens and homes
- bacteria from pet waste and improperly maintained septic systems
- soil from poor construction site management
- soap from car washing
- debris and litter



**So the water flowing down the street is not just rain; it's polluted water, and it heads directly to our local water bodies.**

# Why Is It A Problem?

## Swimming, And Fishing, And Flooding...Oh My!

How exactly does storm water pollute? Here are a few ways:

**It contributes sediment** to water bodies, which can make it difficult or impossible for aquatic plants to grow. This can destroy aquatic habitats for fish and aquatic life.

**It contributes excess nutrients (for example, phosphorus and nitrogen)** to water bodies, which can cause algae blooms. Algae blooms remove oxygen from the water, which in turn, kills fish and other aquatic life.

**It contributes bacteria and other pathogens** to water bodies, which can wash into swimming areas and create health hazards. This is usually what has happened which beaches are closed.

**It contributes debris** to our water bodies. Litter such as plastic bags, six-pack rings, bottles, and cigarette butts wash into lakes, streams, rivers, and the ocean, and can choke or suffocate aquatic life such as ducks, fish, turtles, and birds.

**It contributes household hazardous wastes** such as insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids to our water bodies. People (and even pets and other animals) can become sick from eating diseased fish and shellfish or ingesting polluted water.

**It affects drinking water sources.** This, in turn, can affect human health and increase drinking water treatment costs.

Many people assume that storm water flows down storm drains and then to a treatment facility. Unfortunately, that is almost never the case. **Storm water either flows directly into local waters or down storm drains, which channel it into local water bodies. The polluted runoff closes swimming beaches and fishing grounds, threatens water resources, harms natural areas, and contributes to flooding.**



# Where Do I Fit In?

Once you learn about the problem of storm water, the idea of making a difference might feel daunting. Fortunately, there are simple steps that anyone can take to control storm water pollution.

## Tips For Your Yard

- ❖ Never dump, wash, or rake anything into the path of a storm drain.
- ❖ Sweep spilled fertilizers, grass clippings, and soil off sidewalks and driveways and back onto the lawn. Sweep, don't hose, the driveway.
- ❖ Water wisely: the lawn is usually happy with 1 inch per week, and that includes rainwater!
- ❖ Divert rooftop runoff to a rain barrel or onto the lawn rather than a driveway. Collected water can even be used for watering plants.
- ❖ Reduce the amount of fertilizers and pesticides that you apply to your lawn. You'll save money, too!

## Tips For Your Home

- ❖ Never put hazardous household wastes (paint, paint thinner, oven cleaners, etc.) down storm drains, indoor drains, or the trash.
- ❖ If you have a septic system, have it inspected every year, and have it pumped at least every three to five years.

## Tips For Your Vehicle

- ❖ If you change your own motor oil, recycle the used oil.
- ❖ Wash your vehicle at a designated car wash or on grass—not in the driveway.

## Tips For Your Pet

- ❖ Scoop your dog's poop. Then throw it in the trash.
- ❖ Don't feed waterfowl.

## ADDITIONAL RESOURCES

- **Metropolitan North Georgia Water Planning District**  
<http://www.northgeorgiawater.com/>
- **Center for Watershed Protection**  
<http://www.cwp.org/>
- **Corps of Engineers**  
<http://www.sam.usace.army.mil/>
- **National Stormwater Best Management Practices Database**  
<http://www.bmpdatabase.org/>
- **Georgia Stormwater Management Manual**  
<http://www.georgiastormwater.com/>
- **American Rivers**  
<http://www.americanrivers.org/site/PageServer>
- **Environmental Protection Division**  
<http://www.gaepd.org/>
- **Department of Natural Resources**  
<http://www.gadnr.org/>

## KID LINKS

- **Surf Your Watershed**  
<http://www.epa.gov/surf/>
- **Non-point Source Pollution Kids Page**  
<http://www.epa.gov/OWOW/NPS/kids/index.html>
- **Environmental Kids Club**  
<http://www.epa.gov/kids/>
- **Clean Water Campaign**  
<http://www.cleanwatercampaign.com/kids/index.html>
- **Kid's Playhouse -**  
<http://www.stormwatercoalition.org/html/playhouse/index.html>
- **Stormwater Quality Lesson Plans and Activities**  
<http://www.stormwatercoalition.org/html/et/index.html>
- **Make a Water Filter**  
<http://pbskids.org/zoom/activities/sci/waterfilter.html>
- **Droplet and the Water Cycle**  
<http://kids.mtpe.hq.nasa.gov/droplet.html>



# Stormwater Management Program

Management of stormwater runoff has become an increasingly important responsibility for local governments. Recently enacted Federal and State stormwater regulations, combined with aging drainage infrastructure, has resulted in local governments like City of Auburn developing and implementing more comprehensive stormwater management programs to achieve regulatory compliance and address recurring drainage system problems.



Over time, stormwater structures such as pipes and catch basins can become clogged and/or damaged, lessening their ability to carry stormwater runoff. If these stormwater structures are not maintained, then when it rains in City of Auburn pipes can overflow into streets and inundate existing drainage system components. To solve these problems and comply with stormwater regulations, the City of Auburn is developing a comprehensive stormwater management program, and setting up a stormwater utility that will be funded primarily by a stormwater utility fee.

## Stormwater Regulations

New laws have been established by the State and Federal government to regulate stormwater runoff and water quality. The Georgia Environmental Protection Division (EPD) regulates the discharge of pollutants in stormwater through National Pollutant Discharge Elimination System (NPDES) stormwater discharge permits and the requirements of the Metropolitan North Georgia Water Planning District (the District).

The City of Auburn must comply with its NPDES stormwater permit and the requirements of the District, which require that certain activities be implemented. These unfunded requirements involve the City undertaking specific compliance activities to reduce the discharge of stormwater pollution to local streams, creeks and lakes.

## Additional Links

- [Frequently Asked Questions](#)
- [How Do I Obtain More Information?](#)

## Contact Information

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