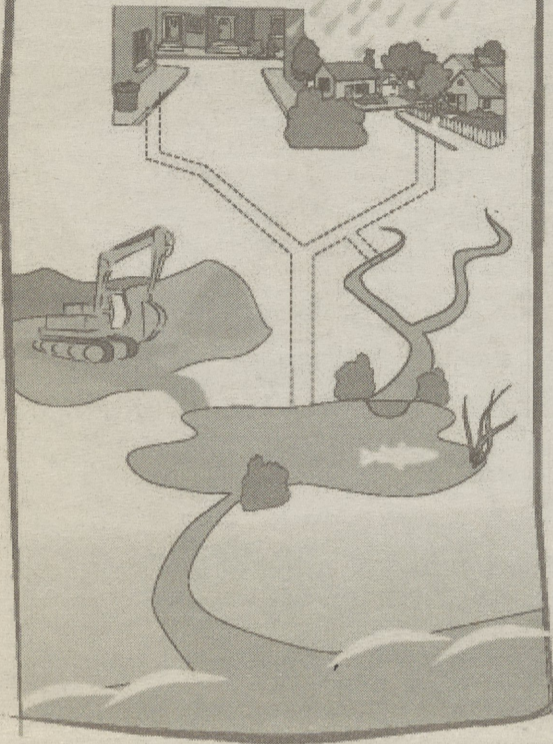


# When It Rains, It Drains

Understanding Storm Water and How It Can Affect Your Money, Safety, Health, and the Environment



## What is Storm Water?

Storm water is water from precipitation that flows across the ground and pavement when it rains or when snow and ice melt. The water seeps into the ground or drains into what we call storm sewers. These are the drains you see at street corners or at low points on the sides of streets. Collectively, the draining water is called storm water runoff.

## Why is Storm Water "Good Rain Gone Wrong?"

Storm water becomes a problem when it picks up debris, chemicals, dirt, and other pollutants as it flows or when it causes flooding and erosion of stream banks. Storm water travels through a system of pipes and roadside ditches that make up storm sewer systems. It eventually flows directly to a lake, river, stream, wetland, or coastal water. All of the pollutants storm water carries along the way empty into our waters, too, because storm water does not get treated!



Pet wastes left on the ground get carried away by storm water, contributing harmful bacteria, parasites and viruses to our water.



Vehicles drip fluids (oil, grease, gasoline, antifreeze, brake fluids, etc.) onto paved areas where storm water runoff carries them through our storm drains and into our water.



Chemicals used to grow and maintain beautiful lawns and gardens, if not used properly, can run off into the storm drains when it rains or when we water our lawns and gardens.

Waste from chemicals and materials used in construction can wash into the storm sewer system when it rains. Soil that erodes from construction sites causes environmental degradation, including harming fish and shellfish populations that are important for recreation and our economy.



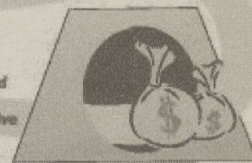
## What Happens When It Rains?

Rain is an important part of nature's water cycle, but there are times it can do more damage than good. Problems related to storm water runoff can include:



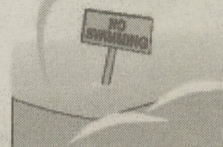
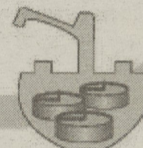
Flooding caused by too much storm water flowing over hardened surfaces such as roads and parking lots, instead of soaking into the ground.

Increase in spending on maintaining storm drains and the storm sewer system that become clogged with excessive amounts of dirt and debris.



Decreases in sportfish populations because storm water carries sediment and pollutants that degrade important fish habitat.

More expensive treatment technologies to remove harmful pollutants carried by storm water into our drinking water supplies.



Closed beaches due to high levels of bacteria carried by storm water that make swimming unsafe.

We can help rain restore its good reputation while protecting our health and environment while saving money for ourselves and our community. Keep reading to find out how...

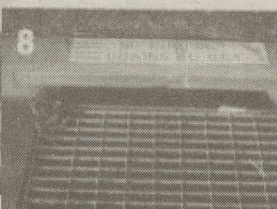
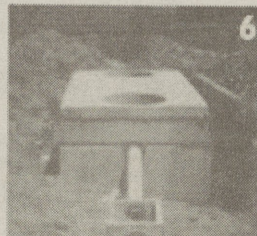
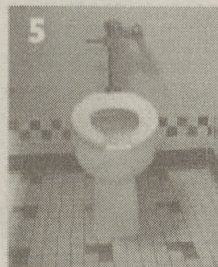
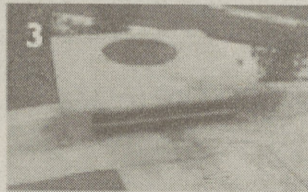
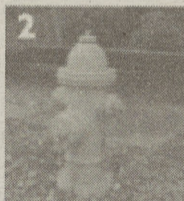
## Restoring Rain's Reputation: What Everyone Can Do To Help

Rain by nature is important for replenishing drinking water supplies, recreation, and healthy wildlife habitats. It only becomes a problem when pollutants from our activities like car maintenance, lawn care, and dog walking are left on the ground for rain to wash away. Here are some of the most important ways to prevent storm water pollution:

- Properly dispose of hazardous substances such as used oil, cleaning supplies and paint—never pour them down any part of the storm sewer system and report anyone who does.
- Use pesticides, fertilizers, and herbicides properly and efficiently to prevent excess runoff.
- Look for signs of soil and other pollutants, such as debris and chemicals, leaving construction sites in storm water runoff or tracked into roads by construction vehicles. Report poorly managed construction sites that could impact storm water runoff to your community. (See the back of this brochure for contact information.)
- Install innovative storm water practices on residential property, such as rain barrels or rain gardens, that capture storm water and keep it on site instead of letting it drain away into the storm sewer system.
- Report any discharges from storm water outfalls during times of dry weather—a sign that there could be a problem with the storm sewer system.
- Pick up after pets and dispose of their waste properly. No matter where pets make a mess—in a backyard or at the park—storm water runoff can carry pet waste from the land to the storm sewer system to a stream.
- Store materials that could pollute storm water indoors and use containers for outdoor storage that do not rust or leak to eliminate exposure of materials to storm water.

## Test Your Storm Sewer System Savvy!

What does the storm sewer system look like in your community? See if you can identify which pictures are part of the storm sewer system. (Answers are on the back.)



## Where To Go To Continue the Information Flow

Your community is preventing storm water pollution through a storm water management program. This program addresses storm water pollution from construction, new development, illegal dumping to the storm sewer system, and pollution prevention and good housekeeping practices in municipal operations. It will also continue to educate the community and get everyone involved in making sure the only thing that storm water contributes to our water is... water! Contact your community's storm water management program coordinator or the Pennsylvania Department of Environmental Protection for more information about storm water management.



Pennsylvania Department of Environmental Protection  
www.dep.state.pa.us

**Answers to Test Your Storm Sewer System Savvy:**

1. Drain - Part of the storm sewer system, these people think that the system is just a series of underground pipes. It can also include ditches used to carry storm water from the land to a receiving lake, river, or stream.
2. Storm Sewer Catchment - Part of the storm sewer system, an outlet where storm water flows from the storm sewer system into a receiving lake, river, or stream. If there is a flow from an outlet, it is part of the storm sewer system.
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