

What Is Stormwater Runoff?

Stormwater runoff occurs after a rainfall. Storm water flows over impervious (unable to penetrate) surfaces like driveways, sidewalks, streets, parking lots and roofs and is unable to percolate (filter or seep) into the ground. This unfiltered water reaches our neighborhood streams, ponds, lakes, bays, wetlands and oceans and can eventually make its way into our ground water. (Water beneath the earth's surface)

Why Is Stormwater Runoff a Problem?

Stormwater runoff can collect many different types of pollution before it reaches a body of water, including debris, dirt and chemicals. The storm water collects these materials and flows directly into a body of water like a stream or lake. These water bodies may be used for swimming, fishing and may even provide some of us with drinking water.

How Do Different Types of Pollution Affect My Watershed?

There are two basic types of pollution: point source and non-point source. Point source pollution is easy to understand because it can be traced directly to its source. Point source pollution was a big concern in the past, but today stricter laws and regulations have drastically decreased the problem.

Non-point source pollution is a little more difficult to understand. Stormwater runoff pollution is a type of non-point source pollution. This means that the pollution cannot be traced back to a specific source, but instead comes from many different sources throughout the environment. Non-point source pollution is the primary cause of watershed pollution today. Non-point source pollution occurs when small amount of pollution from a large variety of sources is picked up by stormwater runoff and carried into water bodies.

Stormwater runoff can carry many different types of non-point source pollution. Each can affect your watershed in a different way. Sediment (dirt, soil, sand) can increase the turbidity (a measure of water cloudiness) of a water body. Turbidity can block sunlight from reaching aquatic plants, making it impossible for them to grow. Without plants, animals lose a food source and it is more difficult to filter pollutants from the water. Instead, pollutants collect in the bottom of the water body and remain there indefinitely.

Excess nutrients carried in stormwater runoff can also negatively affect our water supply. These nutrients, primarily nitrogen and phosphorus, can come from lawn fertilizers or natural sources, such as manure. Nutrients can cause algal and bacterial blooms, which proliferate (reproduce) rapidly. Algae will consume oxygen, increase turbidity in the water body and eventually die along with the fish and other aquatic life that need oxygen to live.

Debris such as plastic bags, bottles and cigarette butts can wash into a water body and interfere with aquatic life. Other hazardous wastes can be carried into a water body. These include insecticides, (chemicals used to control or kill insects) herbicides, (chemicals used to kill unwanted plants) paint, motor oil and heavy metals.

What Can You Do?

Now you know that pollution from stormwater runoff can contaminate our water supply. So what can you do to prevent this problem? Here are some tips to help you on your way to a pollution solution:

- Never Dump Anything Down Storm Drains
- Use Fertilizers Sparingly
- Control Soil Erosion by Planting Over Bare Spots in Landscape
- Collect Rainwater in Rain Barrels for Lawn Use
- Sweep Driveways, Sidewalks and Roads Instead of Using Hose
- Compost Yard Waste
- Properly Dispose of Hazardous Household Chemicals
- Avoid Pesticides
- Direct Downspouts Away From Paved Surfaces
- Use Car Wash Instead of Washing Car in Driveway
- Check Car for Leaks and Recycle Motor Oil
- Properly Dispose of Pet Waste
- Inspect and Pump Septic Tank Regularly
- Protect Wetlands that Serve as Natural Buffers to Pollution, Soil Erosion and Flooding
- Join Adopt-a-Watershed
- Educate Friends, Family, Neighbors
- Recycle