

Stormwater

What is stormwater?

Stormwater is water from rain or melting snow that doesn't soak into the ground but runs off into waterways. It flows from rooftops, over paved areas and bare soil, and through sloped lawns while picking up a variety of materials on its way. As it flows, stormwater runoff collects and transports soil, animal waste, salt, pesticides, fertilizers, oil and grease, debris and other potential pollutants. The quality of runoff is affected by a variety of factors and depends on the season, local meteorology, geography and upon activities which lie in the path of the flow.

What's the problem?

Stormwater gathers a variety of pollutants that are mobilized during runoff events. Polluted runoff degrades our lakes, rivers, wetland and other waterways runoff. Transported soil clouds the waterway and interferes with the habitat of fish and plant life.

Nutrients such as phosphorus and nitrogen can promote the overgrowth of algae, deplete oxygen in the waterway and be harmful to other aquatic life. Toxic chemicals from automobiles, sediment from construction activities and careless application of pesticides, herbicides and fertilizers threaten the health of the receiving waterway and can kill fish and other aquatic life. Bacteria from animal wastes and illicit connections to sewerage systems can make nearby lakes and bays unsafe for wading, swimming and the propagation of edible shellfish. According to an inventory conducted by the United States Environmental Protection Agency (EPA), half of the impaired waterways are affected by urban/suburban and construction sources of stormwater runoff.

What's being done?

Significant improvements have been achieved in controlling pollutants that are discharged from sewage and wastewater treatment plants. Across the nation, attention is being shifted to other sources of pollution such as stormwater runoff. Stormwater management, especially in urban areas, is becoming a necessary step in seeking further reductions in pollution in our waterways and presents new challenges.

Stormwater runoff normally is not treated by sewage and wastewater treatment plants. More often than not, end-of-pipe controls are not the best answer for removing pollutants from stormwater runoff. Pollutants in runoff enter our waterways in numerous ways and the best way of control is usually at the pollutant's source. Sometimes, significant improvements can be made by employing best management practices, or "BMPs". Proper storage of chemicals, good housekeeping and just plain paying attention to what's happening during runoff events can lead to relatively inexpensive ways of preventing pollutants from getting into the runoff in the first place and then our waterways.

The U.S.EPA and NYSDEC are increasing their attention in several ways. A federal regulation, commonly known as Stormwater Phase II, requires permits for stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas and for construction activities disturbing one or more acres. To implement the law, the New York State Department of Environmental Conservation has issued two general permits, one for MS4s in urbanized areas and one for construction activities. The permits are part of the State Pollutant Discharge Elimination System (SPDES).