

Stormwater / MS4 Introduction



Storm water is water from precipitation that flows across the ground and pavement when it rains. Sometimes the ground absorbs storm water and it never reaches streams, rivers and lakes, other times storm water traveling over land eventually drains into a system of conveyances. This system is referred to as a **municipal separate storm sewer system**, also known as an MS4. A **separate storm sewer system** includes ditches, curbs, gutters, storm sewers and similar means of collecting runoff that do not connect with a wastewater collection system or treatment plant.

Draining rain water is called storm water runoff. **Storm water runoff can be a problem when there is a decrease in quality and an increase in quantity.** Development can alter the natural pathway that storm water takes to travel over land and increases the rate at which it travels over the land by changing porous surfaces (soil) to non-porous (or impervious) surfaces (pavement). Soil acts as a filter for storm water and cleans it as the water infiltrates the ground. When storm water travels over impervious surfaces, pollutants are collected and deposited when the water discharges from the MS4.

Pollutants concentrated in storm water runoff eventually decrease the overall water quality of lakes, rivers and streams that receive storm water discharges. This means that a greater volume of polluted runoff is reaching our lakes, rivers, and streams at a faster pace.

It is important to understand that while wastewater from the sanitary sewer system gets treated, storm water traveling through a separated storm sewer system never gets to a treatment plant. It discharges directly to our water; along with everything it picks up on its journey over the land. Storm water can become a problem when it picks up debris, chemicals, dirt, and other pollutants as it flows eventually reaching a lake, river, stream, wetland, or coastal water.