**Stormwater runoff** is the water from rain or melting snow that doesn't soak into the ground. Instead, it flows over surfaces like:

Roads - Driveways - Sidewalks - Rooftops - Lawns and compacted soil

As it flows, this water can **pick up pollutants** like:

Oil and grease Pesticides Fertilizers

Sediment Trash Pet Waste

Eventually, this runoff often drains into **storm drains**, rivers, lakes, or coastal waters—usually **without any treatment**. This can harm water quality and aquatic life.

**Why it matters:**

* **Flooding**: Large volumes can overwhelm drainage systems.
* **Water pollution**: Carries contaminants into natural waterways.
* **Erosion**: Can wear away stream banks and soil.
* **Habitat destruction**: Alters ecosystems in streams and wetlands.

**How it's managed:**

* **Green infrastructure**: Rain gardens, green roofs, permeable pavements
* **Stormwater retention basins**
* **Public education and regulation**

In 2013, PA passed legislation (Senate Bill 351) that amened the Municipality Authorities Act, allowing existing authorities to include stormwater management responsibilities. USMA will be the new Stormwater Authority in Upper Southampton Township. Our goal is to assist the Township with addressing the increasing costs and regulatory requirements associated with stormwater management.

**Benefits to Upper Southampton**

Stormwater management will **greatly benefit Upper Southampton**—both environmentally and economically. Here's how:

**🌧️ 1. Reduces Flooding**

Uncontrolled runoff can overwhelm storm drains, causing street or basement flooding.

* **Benefit**: Fewer flood-damaged homes, roads, and public infrastructure.

**🏞️ 2. Protects Local Waterways**

Stormwater can carry oil, trash, fertilizers, and bacteria into rivers, lakes, and ponds.

* **Benefit**: Cleaner water for fishing, swimming, and wildlife.

**💧 3. Recharges Groundwater**

Good stormwater systems (like rain gardens or permeable pavements) let more water soak into the ground.

* **Benefit**: Helps refill underground aquifers and wells, supporting water supply.

**🐟 4. Supports Healthy Ecosystems**

Sediment and pollution from runoff can smother fish habitats and harm wetlands.

* **Benefit**: Healthier ecosystems, more biodiversity, and a better environment.

**💰 5. Saves Money Over Time**

Investing in smart stormwater solutions reduces long-term costs for:

* Emergency repairs
* Water treatment
* Erosion control

**🌳 6. Enhances Community Spaces**

Green infrastructure (like bioswales or green roofs) can beautify neighborhoods.

* **Benefit**: Increases property values, supports mental health, and attracts visitors.

**👨‍👩‍👧 7. Improves Public Health**

Runoff often contains bacteria and chemicals that can contaminate drinking water or cause illness.

* **Benefit**: Cleaner environment, safer recreation, healthier residents.

**Bottom line**: Stormwater management is an investment in your town’s **resilience, safety, and quality of life**. Want ideas for small-town projects or funding sources?

**MS4** stands for **Municipal Separate Storm Sewer System**.

It is a system of stormwater infrastructure - like **storm drains, pipes, ditches, and outfalls** that is designed to **collect and carry stormwater** (not sewage) to local water bodies **without treatment**.

**Key Features of an MS4:**

* **“Separate”** means it's separate from the sanitary sewer system (which carries wastewater from homes and businesses to treatment plants).
* It includes public infrastructure like:
  + Streets and curbs
  + Gutters and inlets
  + Storm drains and detention basins

**MS4 Operators Must Implement:**

Public education and outreach Public involvement

Illicit discharge detection and elimination (IDDE) Construction site runoff control

Post-construction stormwater management Pollution prevention for municipal operations

**Why MS4s Matter:**

They play a **critical role in managing stormwater pollution** and protecting water quality in urban and suburban areas.