

US EPA ARCHIVE DOCUMENT



Storm Water and Brownfields

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Region 1

What is Storm Water

- Storm water means storm water runoff, snow melt, runoff, and surface runoff and drainage

Why is Storm Water a Problem?

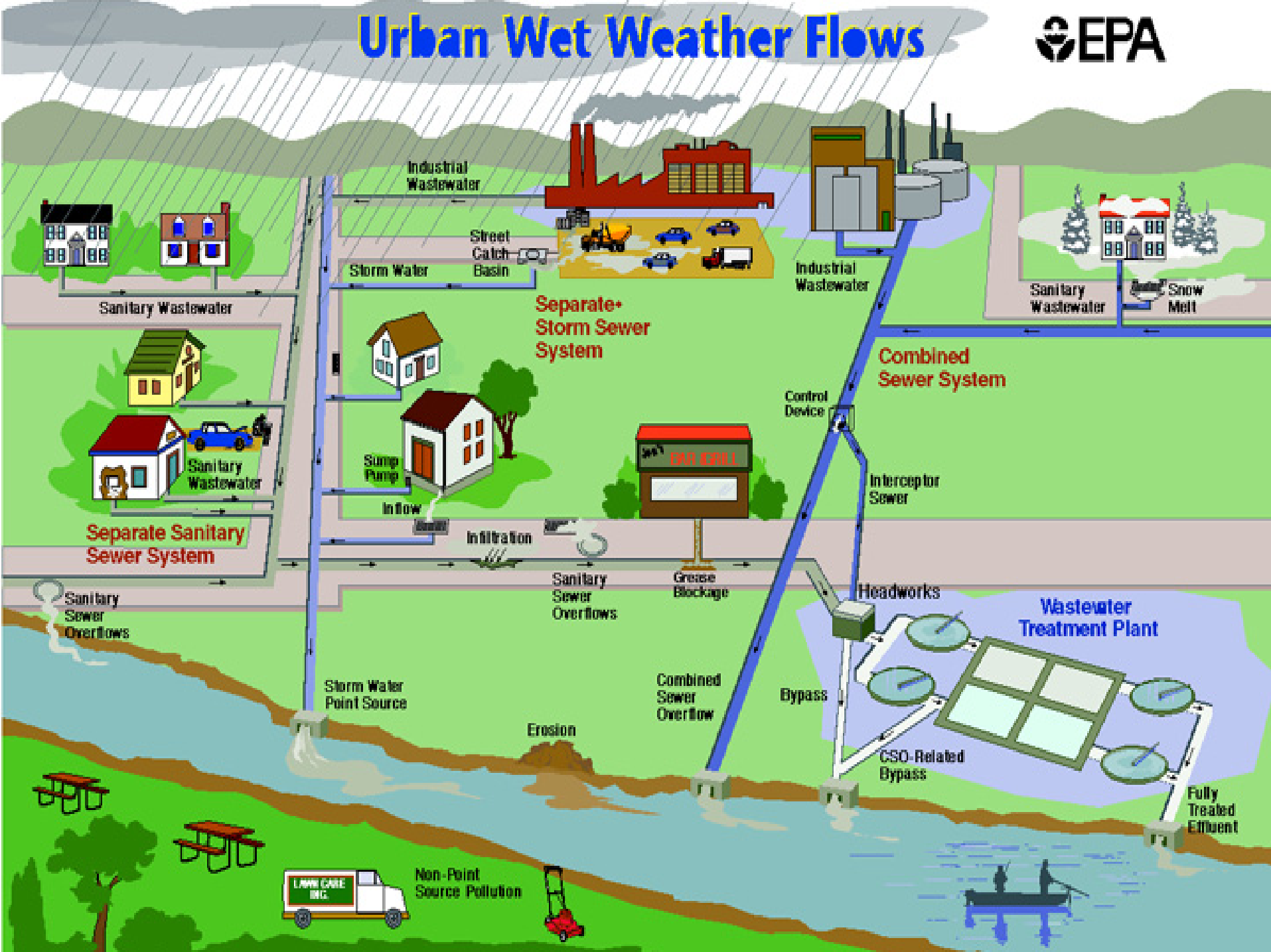
- Impervious surfaces and disturbed land contribute to changes in quality and quantity
- Problems include scouring, temperature changes, siltation, fish kills, shellfish bans, etc.
- Pollutants include sediments, nutrients, bacteria, chemicals, metals, etc.

Why is Storm water a Problem?

Urban Runoff is the Source of Problems in:

- 34, 871 miles or 13% of all Impaired of Rivers and Streams
- 1,369,327 acres or 18% of all Impaired Lakes
- 5045 square miles or 32% of all Impaired Estuaries

Urban Wet Weather Flows



Industrial Wastewater

Street Catch Basin

Storm Water

Industrial Wastewater

Sanitary Wastewater

Snow Melt

Sanitary Wastewater

Separate Storm Sewer System

Combined Sewer System

Sanitary Wastewater

Separate Sanitary Sewer System

Sump Pump

Inflow

Infiltration

Sanitary Sewer Overflows

Grease Blockage

Control Device

Interceptor Sewer

Sanitary Sewer Overflows

Headworks

Wastewater Treatment Plant

Storm Water Point Source

Combined Sewer Overflow

Bypass

CSO-Related Bypass

Fully Treated Effluent

Erosion

Non-Point Source Pollution



Who is Regulated?

- Industrial activities
- Construction activities
- Municipalities

How is Storm Water Regulated?

- Under authority of the Clean Water Act
- Part of the National Pollutant Discharge Elimination System Permit Program (NPDES)
- Individual permits
 - Large and Medium Municipalities
- General Permits
 - Small Municipalities
 - Construction activities
 - Industrial activities

What's the Connection?

- Management of storm water during construction activities
- Management of storm water after construction completed

Construction Activities

Storm Water Construction Program

- Permit required for projects greater than one acre
- Prevent or minimize impact of construction
- Minimize erosion during construction

Construction Permitting

- EPA's Construction General Permit (CGP) was reissued on July 1, 2003
- Clearing, grading, or excavating disturbing one or more acres
- CGP requires storm water pollution prevention plan and Notice of Intent (NOI) form
- Notice of Termination (NOT) submitted when construction is complete



Municipal Storm Water

What is an MS4?

- MS4 = Municipal Separate Storm Sewer System
- A conveyance or system of conveyances owned by a state, city, town, or other public entity that discharges to a water of the U.S; designed or used for collecting storm water; is not a combined sewer; and is not a publicly owned treatment works

Types of Municipalities

- Large municipality – population greater than 250,000
- Medium municipality – population greater than 100,000 but less than 250,000
- Small municipality – not a large or medium municipality
- Regulated small municipality – located in an urbanized area

Six Minimum Measures

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- **Construction Site Runoff Control**
- **Post-Construction Storm Water Management in New and Redevelopment**
- Pollution Prevention/Good Housekeeping for Municipal Operations

Construction in an MS4

- In addition to an EPA Construction General Permit – must also follow local requirements
 - Sediment and erosion control
 - Control waste and litter
 - Participate in site plan review

Post Construction Storm Water Management in an MS4

- Applies in areas of new development and redevelopment
- Attempt to maintain pre-development runoff
 - Minimize impervious areas
 - Encourage infiltration
 - Protect water quality





QUESTIONS

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