

Stormwater Management Program

Agenda

- **Intro to Stormwater**
- **Overview of Phase II Stormwater Rule & Its Requirements**
- **Western New York Stormwater Coalition**



Stormwater

What Is It?

Stormwater is water from rain or melting snow that does not soak into the ground. It runs off the surface of the “land” into storm sewers and ditches.



Stormwater

“Land”

Impervious Surfaces:

Roads, highways, parking lots, driveways & roof tops

Pervious Surfaces:

Grass areas (especially steep slopes), residential developments (drain tile and field drains) & frozen soil

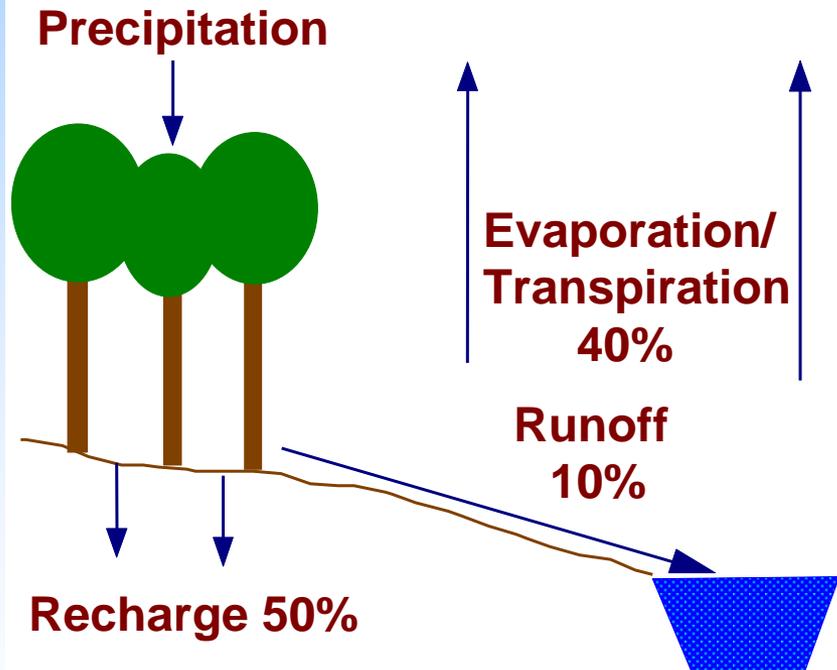


Stormwater

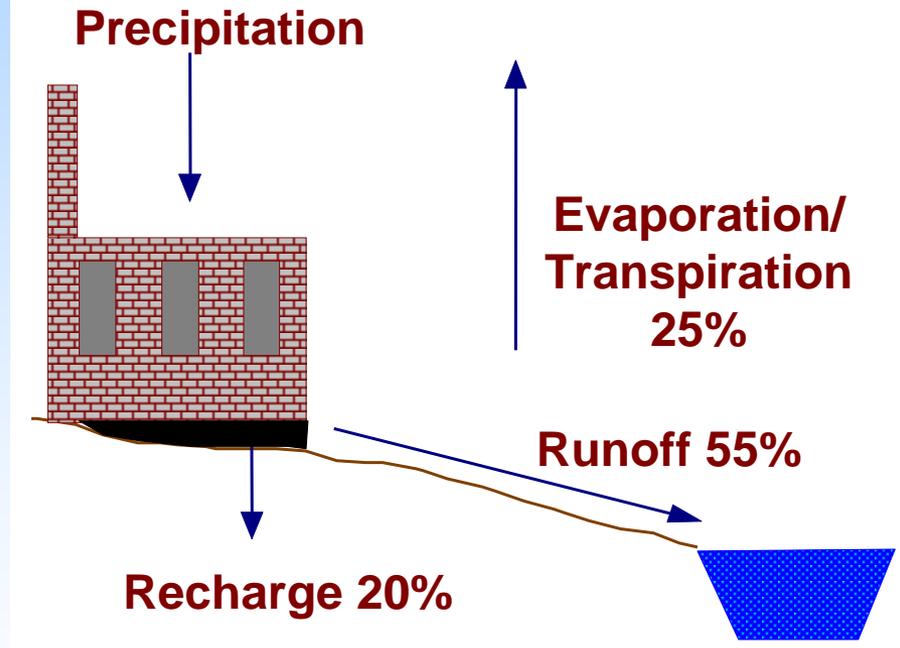
Stormwater runoff is a natural part of the hydrologic cycle ... but as land use changes, runoff can increase by 45%, resulting in erosion, pollutant transport, sedimentation, loss of aquatic habitat, & other damages.



Undeveloped Conditions



Highly Developed Conditions



Stormwater

What is the Problem?

The rain and snowmelt wash pollutants such as pesticide, motor oil, bacteria, fertilizer, soil and litter into storm sewers and ditches.



Stormwater

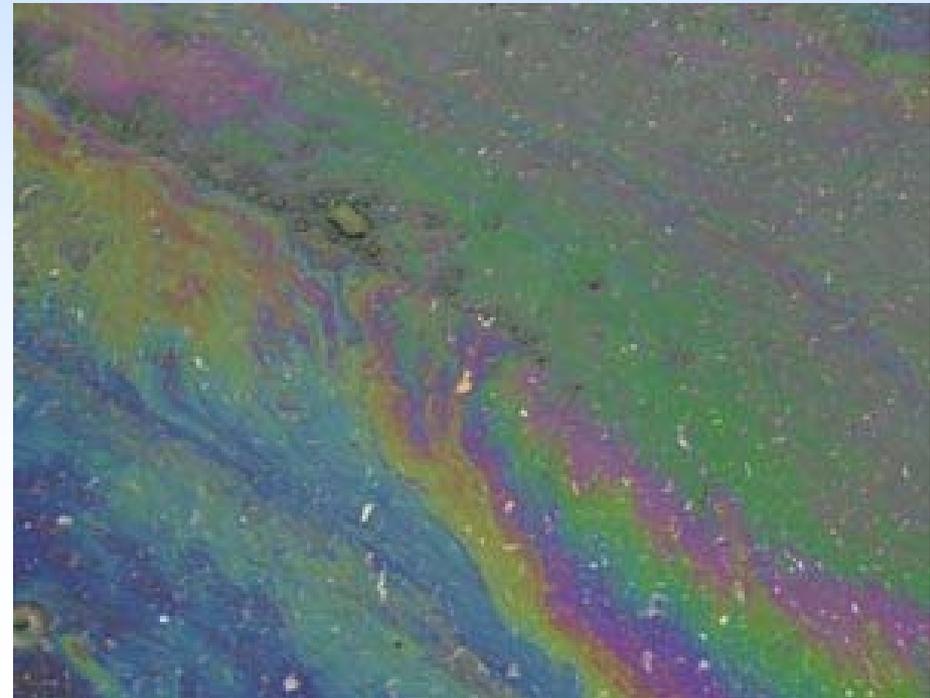
Eventually, the storm sewers and ditches empty the polluted storm water directly into streams, rivers and lakes.



Stormwater

Pollutants

- sediment
- nutrients
- chemicals

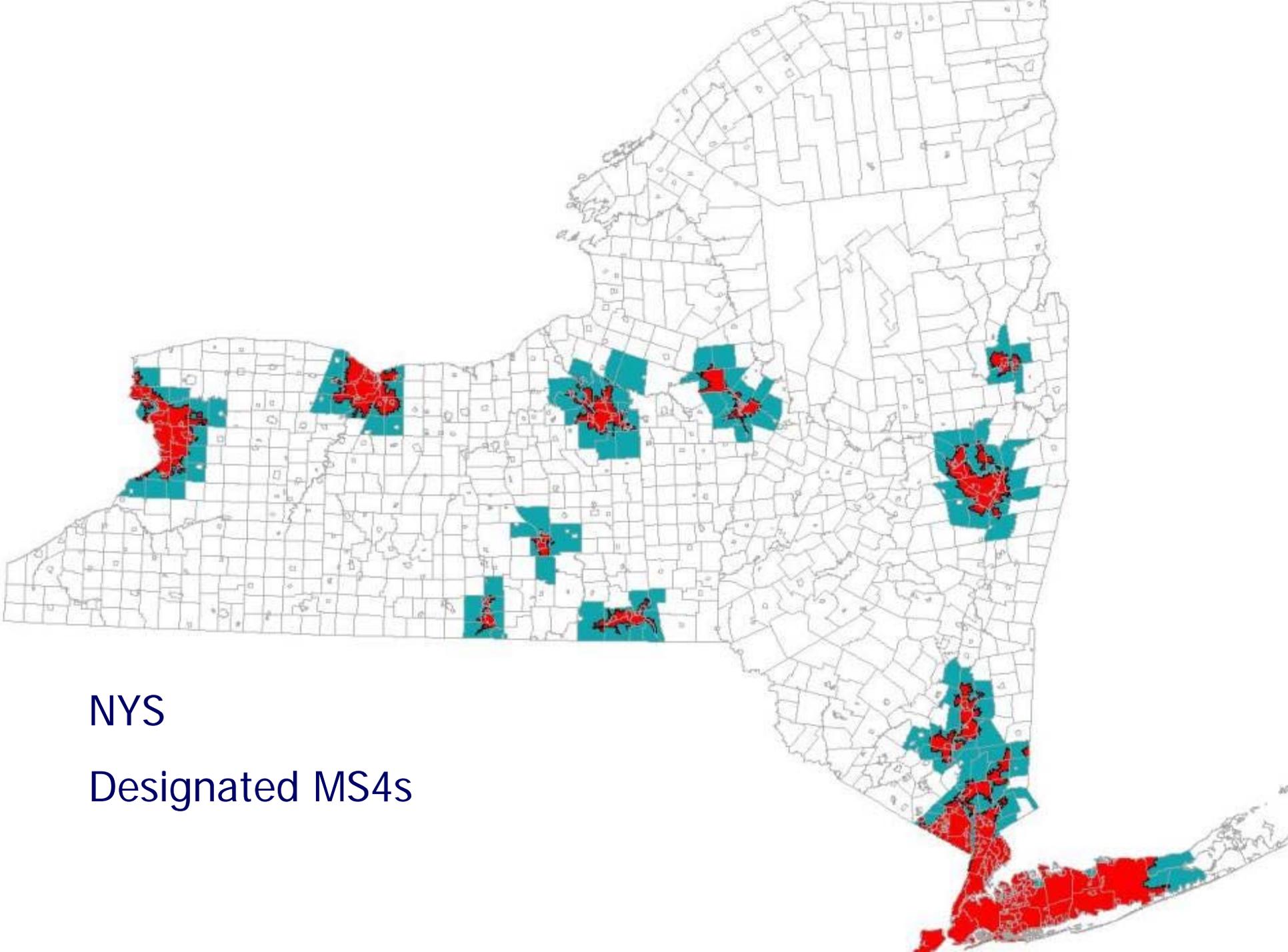


The MS4

A Municipality that owns or operates Separate Storm Sewer Systems including:

- roads with drainage systems
 - municipal streets
 - catch basins
 - curbs
 - gutters
 - ditches
- man-made channels
- storm drains





NYS

Designated MS4s

Overview

Phase I (1990)

- **Municipalities with populations > 100,000 (large-medium MS4s)**
- **Construction activity disturbing >5 acres**
- **Certain industrial activities**



Overview

Phase II

- **Extends the regulations to “small” MS4s in Census-defined “Urbanized Areas”**
- **Requires SPDES General Permit for construction activity disturbing > 1 acre**



Phase II Regulated Municipalities

Erie County MS4s

ALDEN (T)

ALDEN (V)

AMHERST (T)

ANGOLA (T)

AURORA (T)

BLASDELL (V)

BOSTON (T)

BUFFALO (C)

CHEEKTOWAGA (T)

CLARENCE (T)

DEPEW (V)

E. AURORA (T)

EDEN (T)

ELMA (T)

EVANS (T)

GRAND ISLAND (T)

HAMBURG (T)

HAMBURG (V)

KENMORE (V)

LACKAWANNA (C)

LANCASTER (T)

LANCASTER (V)

ORCHARD PARK (T)

ORCHARD PARK (V)

SLOAN (V)

TONAWANDA (T)

TONAWANDA (C)

WEST SENECA (T)

WILLIAMSVILLE (V)



Phase II Regulated Municipalities

Niagara County MS4s

CAMBRIA(T)

LEWISTON(T)

LEWISTON(V)

NIAGARA(T)

NIAGARA FALLS(C)

N. TONAWANDA(C)

PENDLETON(T)

PORTER(T)

WHEATFIELD(T)

YOUNGSTOWN(V)



What do the Phase II Regulations Require?

Small MS4

- **Develop, implement & enforce a stormwater management program**
- **Address six minimum control measures in the program**

Small Construction Activity (>1 acre)

Six Minimum Control Measures

- 1. Public Education and Outreach**
- 2. Public Participation/Involvement**
- 3. Illicit Discharge Detection & Elimination**
- 4. Construction Site Runoff Control**
- 5. Post-construction Runoff Control**
- 6. Pollution Prevention/ Good Housekeeping
for Municipal Operations**



1. Public Education and Outreach on Stormwater Impacts

Plan and conduct an ongoing public education and outreach program

- general public
- small businesses
- construction-related activities



2. Public Participation/Involvement

- Seek public comment on Stormwater Management Plan & Annual Reports
- Engage citizen volunteer groups



3. Illicit Discharge Detection & Elimination

- **Develop a program to detect and eliminate illicit discharges**
- **Map outfalls**



Outfall

The point where a storm sewer or drainage system discharges into a waterway



3. Illicit Discharge Detection & Elimination

- **Adopt an ordinance prohibiting illicit discharges**
- **Inform public, employees, businesses of hazards from illicit discharges**



4. Construction Site Runoff Control

- **Adopt an ordinance**
- **Inspect sites for compliance**
- **Respond to complaints**
- **Collect fees, impose fines, restore**



5. Post-Construction Runoff Control

- Adopt post-construction ordinance
- Review site plans for compliance
- Develop inspection & maintenance program



6. Pollution Prevention/Good Housekeeping for Municipal Operations

- Operation and maintenance program
- Employee training
- Best Management Practices and measurable goals



Implementation Schedule

March 10, 2003 Operators of regulated small MS4s and small construction activity were required to submit a Notice of Intent (NOI) to obtain permit coverage.

January 8, 2008 By the end of their first 5-year permit, operators of regulated small MS4s are required to have fully implemented Stormwater Management Programs.





WNY Stormwater Coalition

Purpose:

Work collectively to identify existing resources and develop programs and mechanisms to meet the requirements of the Phase II Stormwater Rule.



WNY Stormwater Coalition

Elected Officers

CHAIRMAN

James Cornelius

Town of Wheatfield Highway Department

VICE CHAIRMAN

Gary Bommer, Principal Engineering Assistant

Town of West Seneca

SECRETARY

**Richard Eakin, P.E., Deputy Commissioner – Engineering
Niagara County Department of Public Works**

TREASURER

Michael Kaiser, Senior Engineer Assistant

Town of Tonawanda



Coalition Membership

Erie County MS4s

ALDEN (T)

ALDEN (V)

AMHERST (T)

ANGOLA (T)

AURORA (T)

BLASDELL (V)

BOSTON (T)

BUFFALO (C)

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Coalition Membership

Niagara County MS4s

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NIAGARA FALLS(C)

N. TONAWANDA(C)

PENDLETON(T)

PORTER(T)

WHEATFIELD(T)

YOUNGSTOWN(V)

Non-Traditional MS4s

UNIVERSITY AT BUFFALO

PEACE BRIDGE AUTHORITY



WESTERN NEW YORK STORMWATER COALITION

Participating Agencies & Businesses

Erie County DEP/DPW/DSM

Erie County Soil and Water Conservation District

Niagara County Soil and Water Conservation District

Niagara County DPW

New York State Department of Environmental Conservation

New York State Department of Transportation

Peace Bridge Authority

Parsons

Wendel Duchscherer

Malcolm Pirnie

Connie Miner Grant Consultants

Wm. Shutt & Associates

CRA Engineering

Foit Albert

Buffalo Niagara Riverkeepers

TVGA Consultants

Metzger Civil Engineering

Accomplishments

- Stormwater Management Plan
- GIS mapping of stormwater outfalls
- Annual Report template
- Public education materials
- Rain Garden demonstration sites
- Construction site inspection training
- Municipal stormwater pollution prevention/good housekeeping training & guidance document training
- Local law implementation assistance

