

# Stormwater Pollution Basics & Regulations

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**WORKSHOP: CARROLL COUNTY  
BUSINESSES FOR CLEAN WATER**

# Stormwater runoff is...

- Rain and snowmelt that flow over land or impervious surfaces and do not percolate into the ground
- Runoff accumulates debris, chemicals, sediment or other pollutants as flows over land or impervious surface
- Primary method to control and treat stormwater discharges = best management practices (BMPs)



# Clean Water Act (1972)

- Regulates point sources of pollutants that discharge to Waters of the US
  - Wastewater
  - Stormwater
- Point source = discrete conveyances such as pipes or man-made ditches
- Unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained



# National Pollutant Discharge Elimination System (NPDES)

- EPA Program
- Permit required for point sources if discharges go directly to surface waters (municipal, industrial, other)
- Individual homes connected to municipal system, using septic system, or without surface discharge do not need NPDES permit
- In Maryland, administered by State with EPA oversight



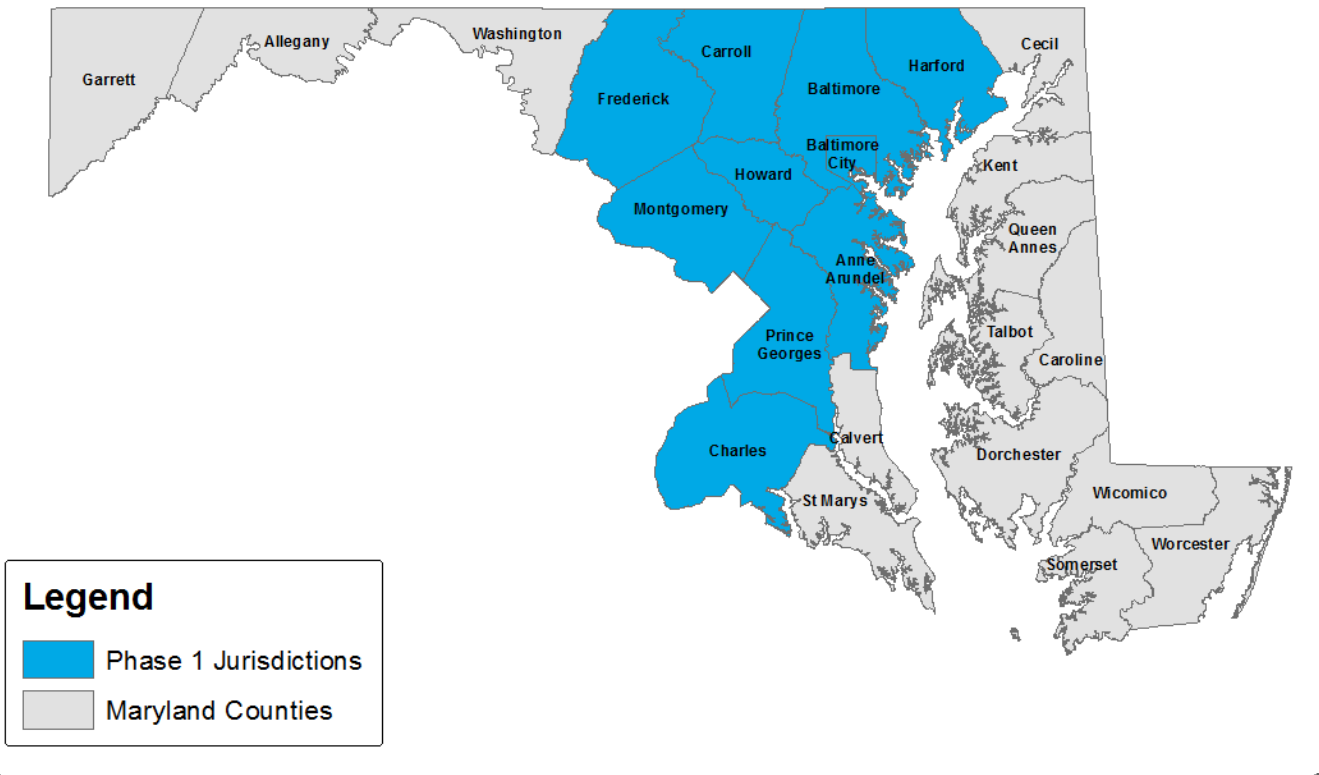
# Municipal Separate Storm Sewer System (MS4) Phase 1

- Conveyance or system of conveyances that is:
  - Owned by government and that discharges to waters of the U.S.;
  - Designed to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
  - Not combined sewer; and
  - Not part of sewage treatment plant.
- Phase 1 = counties or municipalities >100,000 population



# NPDES Phase I MS4 Jurisdictions in Maryland

September 2015



# Carroll County NPDES MS4 Permit

- Issued December 29, 2014 (4<sup>th</sup> generation)
- Co-permittees = Carroll County & Municipalities
  - Memorandum of Agreement
- Five-year term
- Enforceable by MDE and EPA, fines for non-compliance



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# Primary Legal Requirements

- Manage, implement, and enforce stormwater management program to:
  - Effectively prohibit pollutants in stormwater discharge
  - Attain total maximum daily loads (TMDLs) for Chesapeake Bay and local streams
  - Comply with all provisions and requirements in the permit and in plans and schedules developed





# Standard Permit Requirements

- Source identification
- Management Programs
  - Stormwater Management
  - Erosion & Sediment Control Program
  - Illicit Discharge Detection and Elimination (IDDE)
  - Litter and Floatables
  - Property Management and Maintenance
  - Public Education

**inspections  
required**



# Standard Permit Requirements

- Restoration Plans
  - Watershed assessments
  - Restoration plans
    - Restore 20% untreated impervious surface
    - Plans to be completed by December 29, 2015
  - Public participation
- Monitoring
- Adequate Program Funding



# Annual Report

- Status of permit conditions
  - Monitoring data results
  - Expenditures and budget
  - Progress made toward attaining water quality / TMDLs / impervious restoration
  - Data
- 
- ❖ *To be submitted to MDE by December 29 each year*
  - ❖ *Reapplication required in December 2018*



# Enforcement & Penalties

- Clean Water Act
- State Environmental Article

*EPA Audit*



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# Restoration Requirement vs.

## TMDLs

- Restoration requirement = 20% of untreated impervious surface
- Chesapeake Bay TMDL - best management practices (BMPs) to be in place by 2025
- Permit says 20% = adequate progress toward that Bay TMDL for this 5-year period

*Total Maximum Daily Load (TMDL) = maximum amount of pollutant a water body can receive and still meet water quality standards (fishable & swimmable)*



# Capital Projects

- Majority of permit costs
- Credit toward impervious area mitigation and nutrient reduction for certain activities
  - Stormwater facility retrofits
  - Tree planting
  - Other activities:
    - Septic pumpage
    - Easements via development process
    - Other



# Carroll County Environmental Management of Storm Sewer Systems Code, Chapter 53

- Required by permit
- Legal authority to prohibit illicit discharges per PART IV.B. of permit



# Inspections *(Tim Hare, Chief Inspector)*

- Complaint received
- Environmental Inspector visits site
- Response letter sent to property owner if determined to be a violation

