Introduction to Ohio Storm Water Regulations
Storm Water – Where Does It Go?

**Before Development**

- 40% evapotranspiration
- 25% shallow infiltration
- 25% deep infiltration
- 10% runoff

**After Development**

- 30% evapotranspiration
- 10% shallow infiltration
- 5% deep infiltration
- 55% runoff
Storm Water – What Problems Does It Cause?
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How Ohio EPA Regulates Storm Water

Separate vs. Combined Sewer Systems
Separate Sewer Systems – Where Does It Go?
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- Sanitary sewers go to the WWTP where sewage is treated before being released to the environment.
- MS4s go directly to streams, lakes, and other waters of the state!
- Most communities have separate sewer systems.
During wet weather, a mix of untreated sewage and storm water overflows into our waterways!
Combined Sewers – How Big is the Problem?

- In the NEORSD service area
  - 4.5 billion gallons of wastewater and storm water are discharged untreated via combined sewer overflows each year
  - Project Clean Lake will reduce this volume to 0.494 billion gallons per year by 2036

Image courtesy of NEORSD
How Ohio EPA Regulates Runoff

- National Pollutant Discharge Elimination System (NPDES) Permits
  - Storm water discharges to MS4s or directly to waters of the state
    - Require the implementation of best management practices (BMPs) to prevent the discharge of pollutants or reduce the amount of pollutants discharged to the maximum extent practicable
  - Overflows from combined sewer systems
    - Limit the volume and frequency of discharge
    - Set a schedule for the implementation of practices to either expand the capacity of the system or reduce storm water flow into the system
- Green Infrastructure reduces the volume of storm water runoff from a site
  - Increasingly being used to meet both storm water and combined sewer requirements
NPDES Storm Water Program

- **Municipal Storm Water**
  - Communities located in Urbanized Areas must establish local regulations to minimize storm water pollution
  - Non-traditional systems, e.g., public universities and ODOT, in Urbanized Areas must also implement programs to minimize storm water pollution

- **Construction Sites disturbing ≥ 1 acre**
  - Developers and contractors must implement erosion and sediment controls and pollution prevention practices during construction
  - Site plan must include post-construction storm water practices to treat the Water Quality Volume (WQv)

- **Industrial Facilities (see OAC 3745-39-04 for complete list)**
  - Mulch manufacturing (SIC code = 2499)
  - Composting (SIC code = 2875)
  - Operator must implement a storm water pollution prevention plan and monitor runoff
How Does Ohio EPA Regulation Affect Me?

- You can be cited for creating illicit discharges
  - Excessive application of fertilizers and pesticides
  - Failure to stabilize disturbed areas in a timely manner
  - Washing off equipment or conducting vehicle maintenance in such a manner that causes pollutants to enter storm sewers
  - Improper disposal of waste or management of hazardous chemicals

- Post-construction practices must be constructed and maintained
  - MS4s must ensure property owners and home owners’ associations implement long-term maintenance plans
  - Communities with combined sewers are implementing these practices to reduce the volume of storm water entering the system
  - This creates a business opportunity for landscapers!
For More Information

- **Websites**
  - Ohio EPA  [www.epa.ohio.gov/dsw/storm/index.aspx](http://www.epa.ohio.gov/dsw/storm/index.aspx)

- **Ohio EPA Contacts at NEDO**

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