

Stormwater Training



Town of Kent
April 1, 2010

1

Summary of Today's Training

- Stormwater review
- NYSDEC Stormwater Phase II program requirements
- **Illicit discharge detection and elimination (IDDE) overview**
- Video "A drop in the Bucket"
- Questions

2

Distribution of water throughout the Earth

- Oceans and saline groundwater: 97.5%
- Freshwater: 2.5%
 - Ice caps: 1.7%
 - Groundwater: 0.7%
 - Lakes, rivers, streams, etc: 0.02%
 - Atmosphere: 0.001%
 - Soil Moisture: 0.001%
 - Biological water 0.0001%

3

What is a Storm Sewer?



- **A Municipal Separate Storm Sewer System (MS4) is:** A conveyance or system of conveyances owned by a state, city, town or other public entity that discharges to waters of the U.S. and is:
 - Designed and used for collecting or conveying stormwater
 - Not a combined sewer
 - Not part of a Publicly Owned Treatment Works (POTW)

4

NYSDEC Phase II Program Requirements: 6 Minimum Measures

- Public Education and Outreach
- Public Involvement/Participation
- **Illicit Discharge Detection and Elimination (IDDE)**
- Construction Site Runoff Control
- Post Construction Stormwater Management
- **Pollution Prevention and Good Housekeeping for Municipal Operations**

5

Required Stormwater Ordinances

- Town of Kent Stormwater Ordinance
 - Chapter 66: Steep Slope Protection and Stormwater Management.
 - Article IV: Stormwater Pollution Prevention Plans
- Town of Kent Illicit Discharge Ordinance
 - Chapter 43: Illicit Discharges to Storm Sewers

6

What is an Illicit Discharge?

A discharge to an MS4 that is not composed entirely of stormwater **Exception:** permitted discharges and fire fighting related discharges

- Unique frequency, composition and mode of entry



7

What isn't an illicit discharge

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air condition condensation
- Irrigation
- Springs
- Water crawl space pumps
- Footing drains
- Lawn watering
- Individual and residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water

8

The Main Contributors

- Sanitary wastewater
- Effluent from septic tanks
- Car wash wastewaters
- Improper oil disposal
- Household toxics
- Laundry wastewater
- Radiator flushing disposal
- Spills from roadway accidents
- Improper oil disposal



9

Discharge Frequency Types

- Continuous discharges
 - Occur most or all of the time
- Intermittent discharges
 - Occur over a shorter period of time (a few hours per day or a few days per year)
- Transitory discharges
 - Occur rarely, usually in response to a singular event such as a spill, sewer break, accident or illegal dumping episode

10

Mode of Entry

- Direct
 - Sewage, industrial, commercial cross-connection
 - Straight pipe
- Indirect
 - Spills
 - Dumping
 - Outdoor washing activities
 - Contaminated irrigation runoff



11

Land Use and Potential Generating Sites

- **Residential:** Car washing, driveway cleaning, dumping, lawn/landscape watering, septic maintenance, swimming pool discharges
- **Commercial:** Power washing, dumping/spills, vehicle fueling, washing and maintenance, parking lot maintenance, outdoor fluid storage
- **Industrial:** Industrial process water, loading and un-loading area washdowns, outdoor material storage
- **Institutional (churches, cemeteries, hospitals, schools and universities):** Building maintenance, dumping, lawn care, vehicle washing
- **Municipal:** Building maintenance, dumping, landscaping, outdoor fluid storage, road maintenance, vehicle fueling, maintenance and washing

12

Video

13

Town of Kent IDDE Program

- Stormwater Contacts:
 - **Julie Butler (Stormwater Management Officer/Building Inspector): 225-3900**
 - Tony Caravetta (Highway Superintendent): 225-7172
 - Bruce Barber (Stormwater Consultant): 914-962-7733
- Illicit Discharge Hotline Tracking sheet
- Outfall Reconnaissance Inventory
 - Lake Carmel Fall 2009
- Stormwater Pollution Prevention Plan (SWPPP)

14

SWPPP: Pollution Prevention and Good Housekeeping



Potential Pollution Sources

- Exposed material (fuel oil tanks, machinery, soil stockpiles, drums, pipes, etc)
- Spills and Leaks
- Salt Storage
- Septic Systems



Annual Reporting Requirements

- IDDE
 - Where, the nature of the discharge, corrective measures taken
- Municipal housekeeping
 - Acres of parking lots swept
 - Miles of streets swept
 - Feet (miles) of swales cleaned
 - Catch basin cleaning schedule
 - Post-construction control practices inspected and cleaned
 - Pounds of phosphorous, nitrogen and pesticides/herbicides applied

16

Questions

- Bruce Barber, Cornerstone Associates
 - 914-962-7733 Phone
 - 914-962-0330 Fax
 - barberbruce@yahoo.com

17