Stormwater Management Plan:

Pesticide, Herbicide and Fertilizers (PHFs) Application

Columbia Stormwater Management
Partnering for clean waterways
CITY OF COLUMBIA, SC

Victoria Kramer
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June 1, 2010

Overview

- What does this cover?
- Program Goal
- Resident Outreach
- Business Outreach
- City Staff Training

What does this cover?

- People who might use **Pesticides**, **Herbicides** or **Fertilizers**
  - Residents
  - Plant, yard and landscaping related businesses
  - City staff

Program Goal

- To **reduce** and **prevent runoff pollution** from the use of **lawn and garden chemicals** (pesticides, herbicides and fertilizers)

Resident Outreach

- Likely target audiences
  - What to do
    - Home owners who take care of their own lawn
    - Gardeners
  - What to ask for
    - Home owners who hire a service
- Likely approaches
  - Approach stores and nurseries for partnerships
  - Work with gardening groups
- Tracking success

Business Outreach

- Likely target audiences
  - Landscapers
  - Yard chemical applicators
  - Property managers
- Likely approaches
  - Commercial Applicator Licensing
  - Conference(s)
  - Business certification program
- Tracking success

City Staff Training

- City already has Licensed Commercial Applicators
  - Forestry & Beautification
  - Parks & Recreation

City Staff Training

- Some additional staff training already in use

- Working with City departments to address
  - Fertilizer training
  - Any gaps in existing training
  - How to track training

Stormwater Management Plan:

Monitoring Program

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June 1, 2010

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Overview

- What does this require?
- Program Goals
- Program Development

- **Main Purpose:** To identify sources of pollutants through different monitoring strategies

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What does this require?

- **Testing stormwater and surface water quality** to identify issues and measure our progress

- We must **provide all monitoring data to DHEC** in our annual report.

Program Goals

- To identify **sources** of pollutants associated with a known problem (TMDL or impairment)

- To identify appropriate **best management practices** (**BMP's**) to address those sources

- To **demonstrate progress** towards reducing and eliminating those sources

What does this cover?

- Continuous in-stream monitoring and testing

- Storm event sampling

- Specialized sampling
  - Pollutants of concern
  - Suspected illicits
  - BMP effectiveness

Program Development

- Developed and fine-tuned in the first year

- Tools
  - BMP effectiveness testing
  - Watershed assessments
  - Gathering baseline data (on the watershed schedule) so we can determine the existing conditions
  - TMDL/ Impairment testing

Stormwater Management Plan:

Illicit Discharge and Improper Disposal

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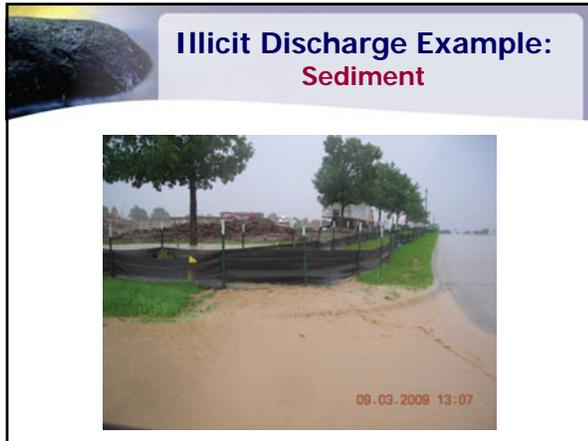
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Overview

- Some Definitions
- What does this cover?
- Program Goal
- Program Requirements
  - Detection
  - Response
  - Oils, Toxics and Household Hazardous Waste

Some Definitions

- **Illicit Discharges:** with some exceptions, anything that enters the City's storm sewer system other than stormwater runoff
  - Exceptions include:
    - Discharges allowed by other NPDES permits
    - Fire fighting activities
    - Irrigation
    - Water line flushing
    - Charity car-washing

Illicit Discharge Example:
Mystery Pipes

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Illicit Discharge Example: Sediment

Illicit Discharge Example: Spill

Some Definitions

- **Improper Disposal:** littering or dumping of trash, debris, unwanted fluids or unwanted chemicals

Improper Dumping Example: Trash and chemicals

What does this cover?

- Anyone who handles **trash**, **debris**, **unwanted fluids** or **unwanted chemicals** within the city limits

- Essentially, that's everyone!
  - Residents
  - Commercial businesses
  - Industrial businesses
  - City staff

Program Goals

- To **detect and remove** (or require discharger to remove) **illicit discharges** and **improper disposal** into the storm sewer system

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Overview of Program Requirements

- Detection
  - Dry Weather Screening
  - Illicit Discharge Detection and Elimination
  - Sanitary Sewage and Seepage Detection and Elimination
- Response
  - Investigating Problems or Complaints
  - Spill Prevention and Response
- Education and Outreach
  - Oils, Toxics and Household Hazardous Waste

Detection:
Dry Weather Screening

- Find and inventory outfalls:
  - Field screen all outfalls at least once per permit term
  - Test any dry weather flows from these outfalls
  - Compile field screening data

Outfall

Dry Weather Flow: Any flow that persists 72 hours after a rain event

Outfall with flow

Detection:
Illicit Discharge Detection...

- Program to investigate illicit discharges
  - Identify areas with reasonable potential to pollute:

Watershed Field Screening

Citizen Complaints

  - Identify and track illicit discharges based on field screening and complaint follow-up

Detection:
... And Elimination

- Address illicit discharges within 10 days of identifying source

- Sometimes requires coordination with neighboring municipalities

Detection:
Sanitary Sewage and Seepage Detection and Elimination

- Put in controls to limit sanitary sewage leaks into the storm sewer system
  - Example: Find and Fix Program

- Ties in closely with Illicit Discharge Detection and Elimination program

Response:
Investigating Problems and Complaints

- Closely tied with Illicit Discharge Detection and Elimination
- Problems identified by
  - Field screening
  - Citizen complaints
- Investigate to find the source of the problem
- Address the problem with inspections or enforcement
  - May include working with property owners to identify solutions

Response:
Spill Prevention and Response

- Develop and carry out program to prevent, contain and respond to spills

- Working with other City departments
  - For response
    - Fire, HAZMAT, Streets
    - Review existing programs
    - Enhance as necessary
  - For staff training

Education and Outreach:
Oils, Toxics and Household Hazardous Waste

- E-waste recycling program through solid waste

- Campaigns to discourage dumping of oils, household hazardous waste
  - Tie to stormwater complaint line campaign
  - Identify target audiences
  - Develop a campaign to reach audiences
  - Evaluate campaign

Thank you!