

# 2017 Winter Quarterly Meeting

## SD1 Illicit Discharge Program Overview



January 31, 2017



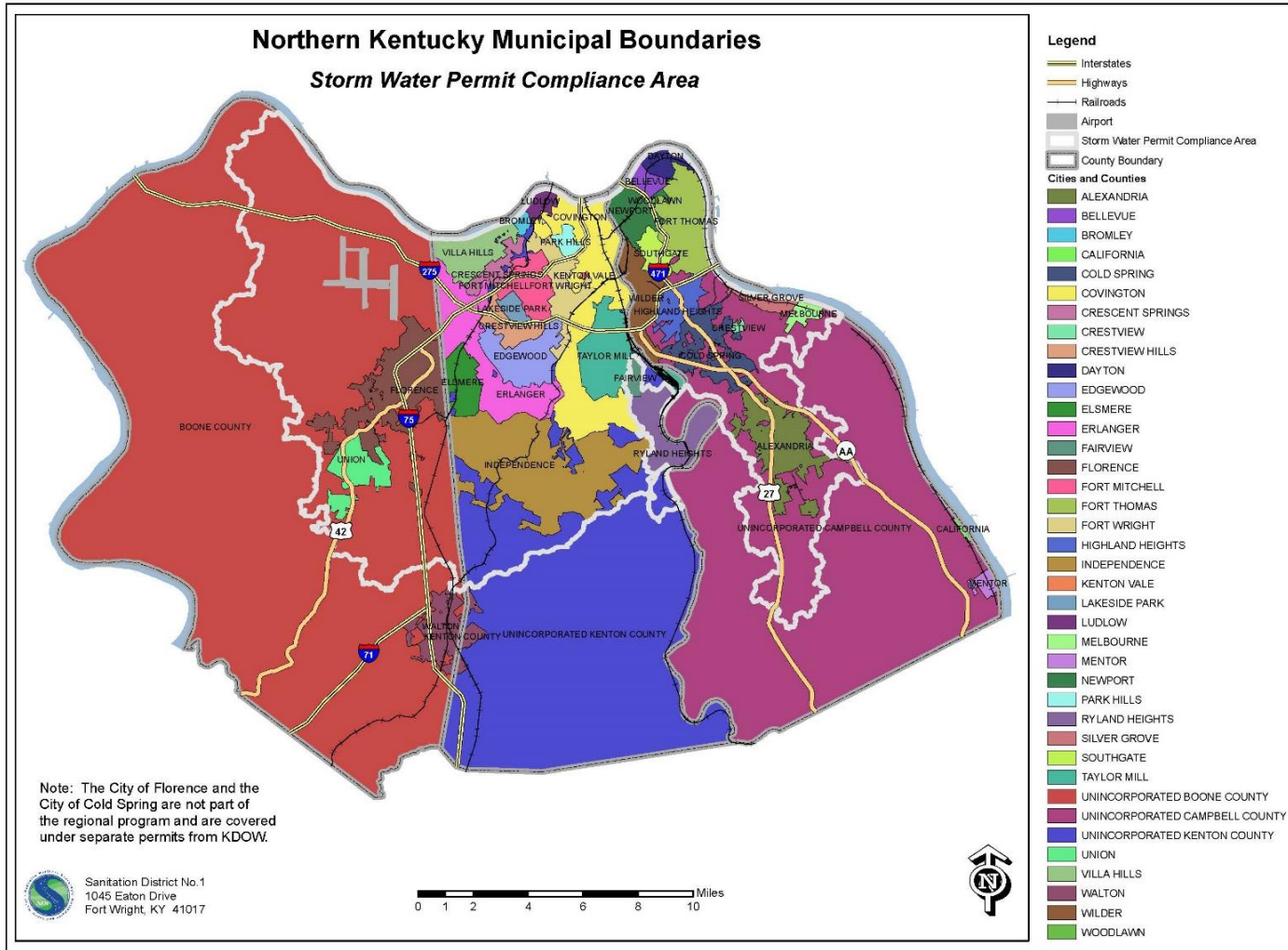
# Agenda

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- Permit Compliance Outfalls
- Chemical Library
- Field Guide
- Standard Operating Procedures
- Enforcement Response Plan
- Program Results

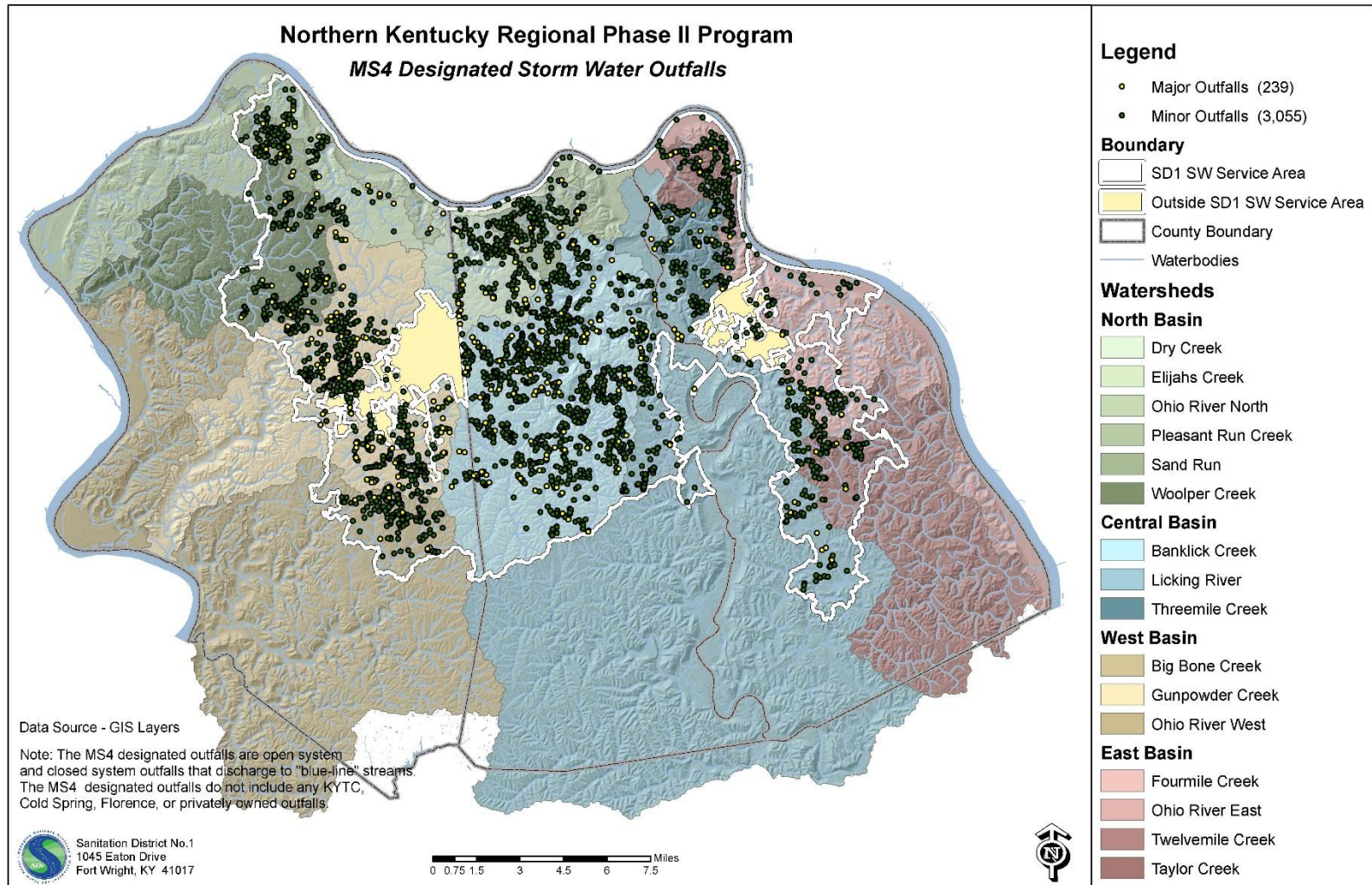


# Storm Water Service Area





# MS4 Storm Water Outfalls



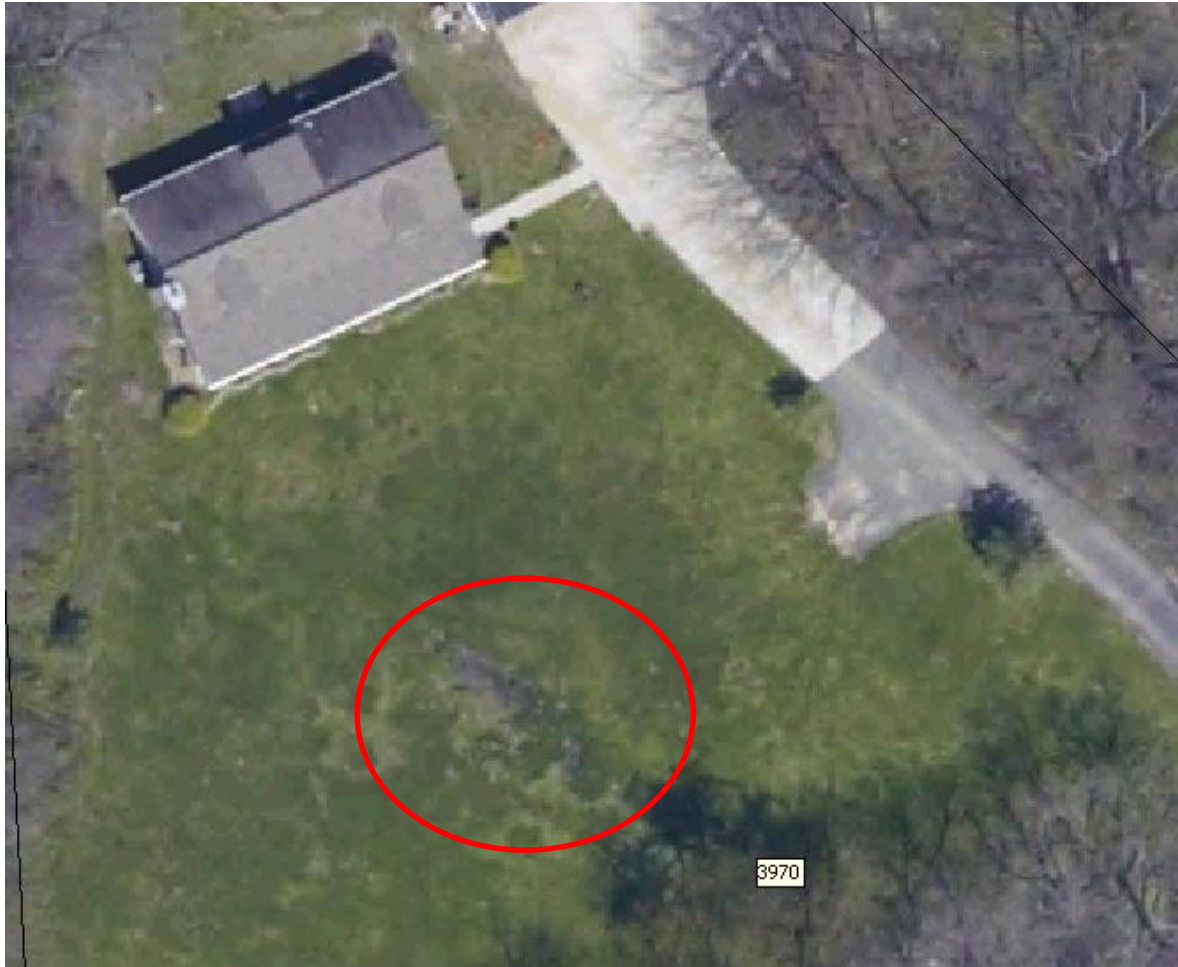


# Sanitary

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# Failing Septic





# Paint



# Grease

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# Concrete



# Industrial







# Chemical Library

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- Summary of chemical composition of discharge types found in the community.
- Based on Center for Watershed Protection Guidance Manual.
- Flow chart method for identifying illicit discharges.

# Chemical Library Development

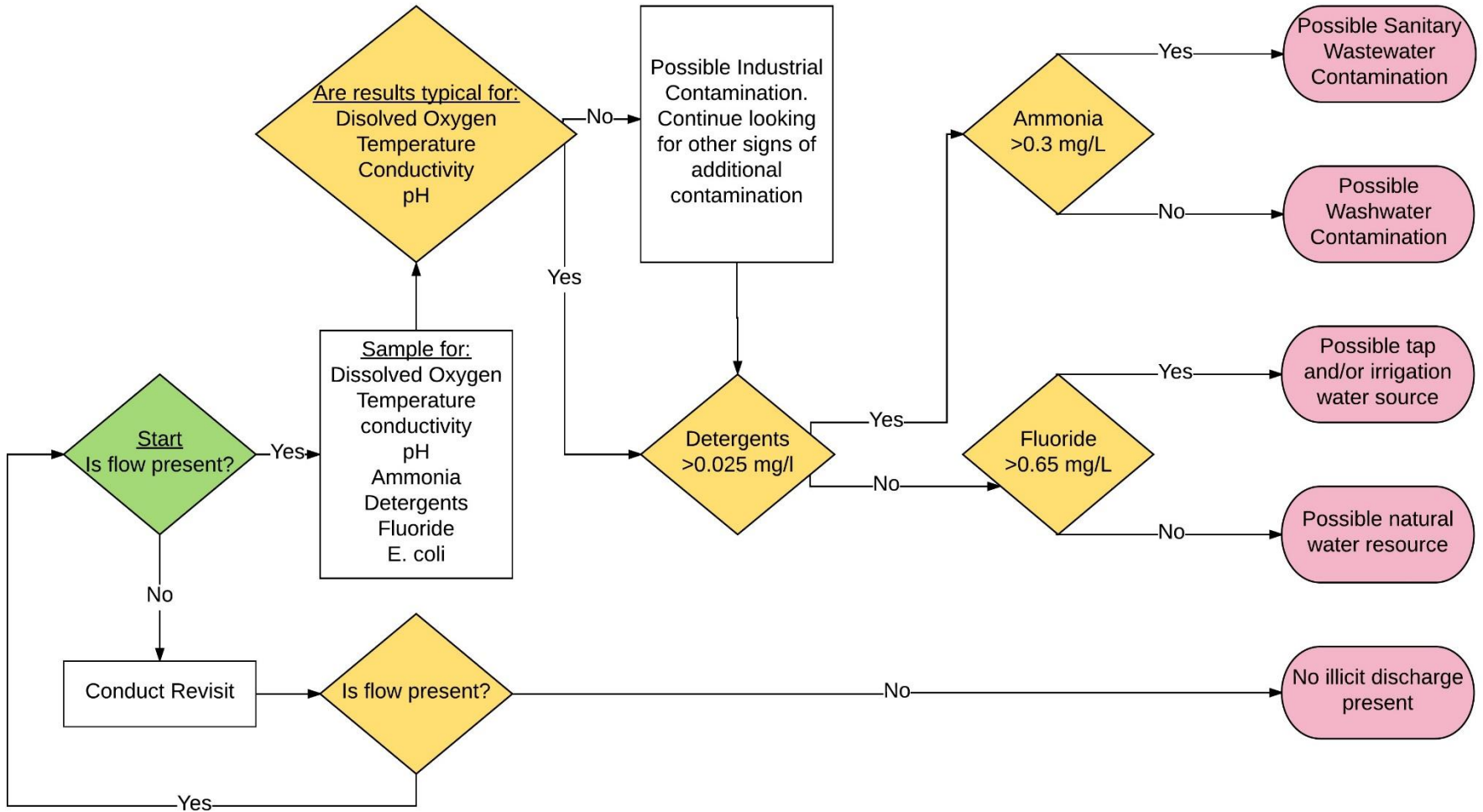
- Discharge Types
  - Ground Water
  - Spring Water
  - Tap Water
  - Commercial Sewage
  - Residential Sewage
  - Laundry Wash water
  - Industrial Process Wastewater
  - Car Wash Wastewater
- Sampling Parameters
  - Detergents
  - Ammonia
  - E. coli
  - Fluoride
  - Dissolved Oxygen
  - pH
  - Temperature
  - Specific Conductivity



# Detergents Sampling Results

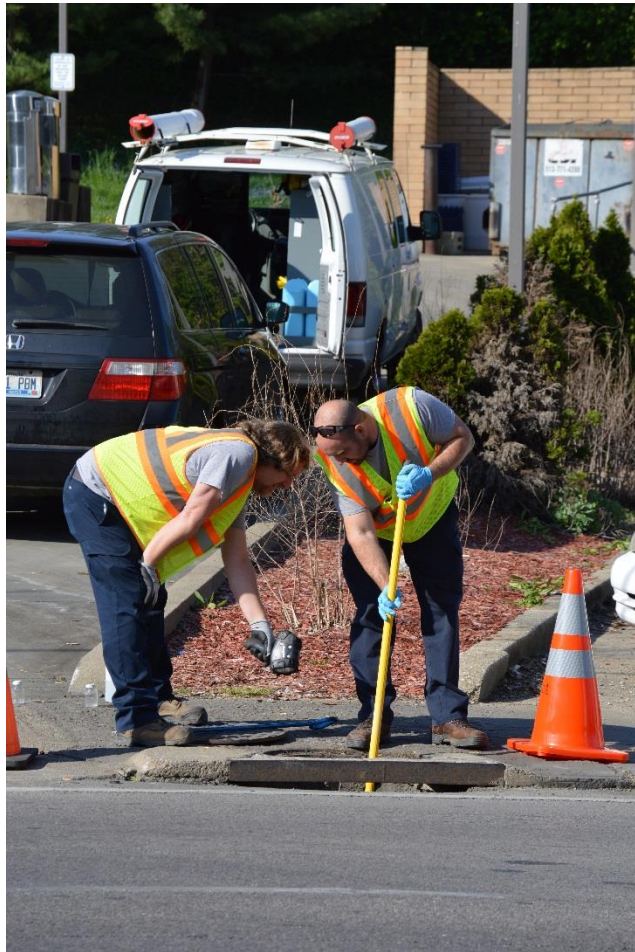
Tap Water	Spring Water	Ground Water	Car Wash	Comm. Sewage	Res. Sewage	Laundry	Industrial
0.00	0.00	0.00	0.50	0.25	0.50	3.00	0.12
0.00	0.00	0.00	1.50	0.50	1.75	3.00	0.12
0.00	0.00	0.00	1.50	0.75	2.00	3.00	0.25
0.00	0.00	0.00	1.50	1.50	2.00	3.00	0.25
0.00	0.00	0.00	3.00	2.00	2.50	3.00	0.25
0.00	0.00	0.12	3.00	2.00	3.00	3.00	0.25
0.00	0.00	0.12	3.00	2.00	3.00	3.00	0.25
0.00	0.00	0.12	3.00	3.00	3.00	3.00	0.37
0.00	0.12	0.12	3.00	3.00	3.00	3.00	0.50
0.00	0.12	0.12	3.00	3.00	3.00	3.00	0.62
0.00	0.12	0.25	3.00	3.00	3.00	3.00	1.00
0.00	0.25	0.25	3.00	3.00	3.00	3.00	1.00
0.12							1.5

SD1  
Flow Chart Method to Identify Illicit Discharges





# Sampling



# Field Guide

- Structure Types
- Taking Pictures
- Physical Characteristics
  - Flow
  - Color
  - Odor
  - Turbidity
  - Floatables
  - Deposits/Staining
  - Vegetation
  - Naturally Occurring Phenomenon
- Water Quality Sampling



# Standard Operating Procedures

- Implementation Plan
- Sample analysis
- Lucity (Asset Management Database)
  - Dye test information
  - Sample data
  - Attaching documents
  - Creating work orders

The screenshot shows the 'GBA Master Series 6.72 - [Stream Sampling - No Filter]' application window. The interface includes a menu bar (System, General, Sewer, Storm, Transportation, Water, Trees/Parks, Equipment, Facility, Work, Inventory, Mobile Manager, View, Window, Help) and a toolbar. Below the menu bar, there are input fields for 'Structure ID', 'Sample Date' (with a dropdown for month and year, and a time selector for AM/PM), and 'Sample Rec #' (set to 99). The main data entry area is divided into three columns: 'US', 'At', and 'DS'. Each column contains a vertical stack of input fields for various parameters: DO Value, pH Value, Temperature Value, Conductivity, E-Coli Value, Fecal Value, Outfall Flow Rate, Outfall Severity, Flow Rate, and Flow Rate Severity. The 'At' column has a wider input field for 'Outfall Severity'. At the bottom of the window, there is a status bar with the text 'Record 0 of 0' and 'Add Mode Ready...'. The Windows taskbar at the very bottom shows the Start button, a search icon, and several open applications including Microsoft PowerPoint and the GBA Master Series 6.72 application.



# Enforcement Response Plan

- Enforcement Response Plan
- Enforcement Response Guide
- Request for extension
- Request for Reconsideration

September 26, 2007

CERTIFIED MAIL # 91 7108 2133 3933 4291 6133

**Re: Notice of Violation**

Dear Mr. Trego:

On or about September 20, 2007, an authorized representative of Sanitation District No. 1 (District) identified the following violation(s) of the Northern Kentucky Regional Storm Water Management Program Rules and Regulations ("Rules & Regulations") existing at or near 5 Plum St.:

**Non-Compliance Description:** Process wastewater from the condenser overflow tank at your facility is discharging to the public storm sewer system. This discharge is in violation of Section 502 of the Rules & Regulations.

**Section 502: PROHIBITION OF ILLEGAL DISCHARGES**

No person shall discharge or cause to be discharged to the storm drainage system or watercourses any materials, including but not limited to pollutants or water containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

You are hereby notified that the continuance of the conditions above stated, whether ongoing or intermittent, will result in additional enforcement action in accordance with the Rules & Regulations. You must perform the following remedial measures to correct the above conditions to avoid further enforcement actions by the District:

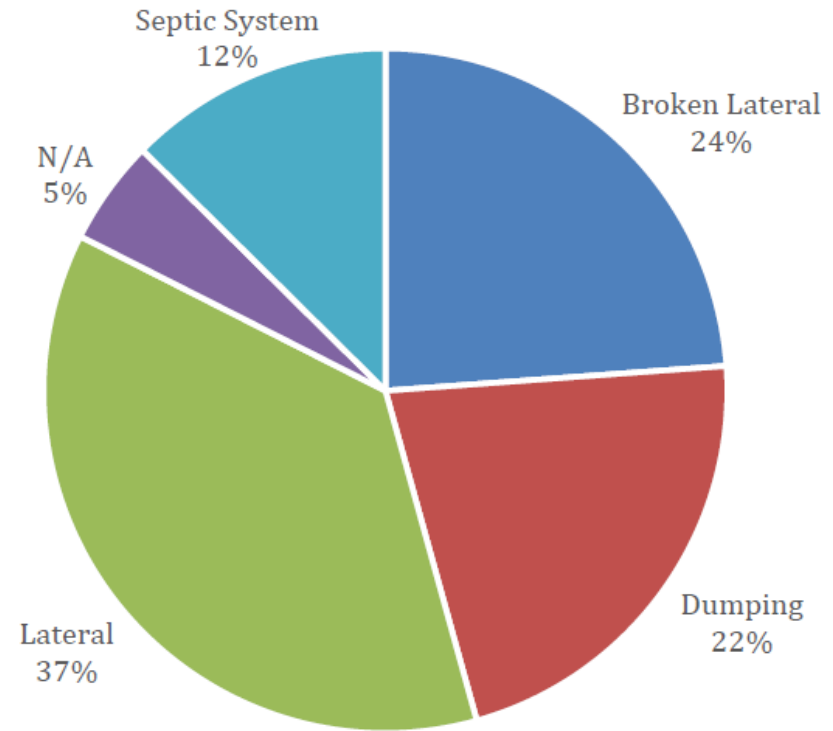
**Remedial Measure:** You must terminate the discharge from condenser overflow tank to the public storm sewer system by the due date below.

**Due Date:** October 8, 2007

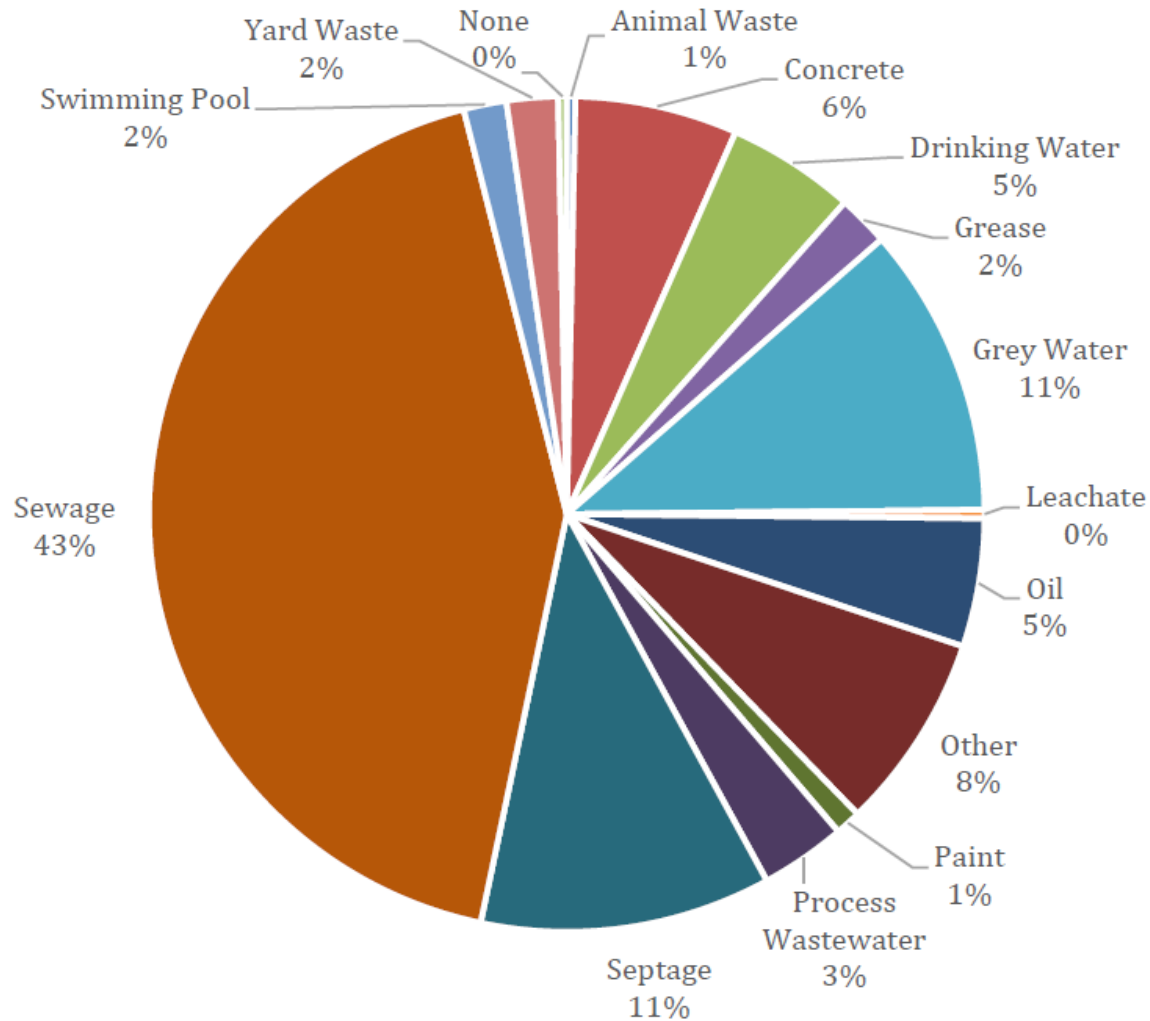
**Fine amount:** \$0.00

# Illicit Discharges Eliminated

- 2007- Present
  - Over 300 illicit discharges eliminated
- 2016
  - 29 illicit discharges eliminated
  - Approx. 1,000,000 gal. eliminated



# Contamination Comparison







Questions?