

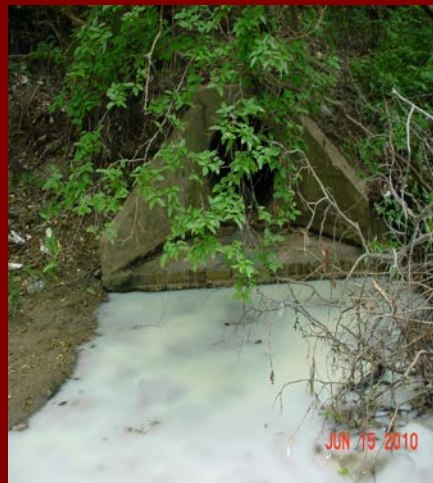
**NCTCOG
IDDE Workshop**

**City of Dallas
Stormwater Management**

**Dixon Branch Illicit Discharge
Investigation**

GROUP PROBLEM SOLVING

- **Problem**
 - Milky white discharge into natural creek channel
 - Musty, weak chemical odor
 - No suds or paper products observed
 - Discharge has occurred for about a week, during the hours of 11 am and 4 pm
- **Objective**
 - Find the source(s) of the illicit discharge(s)



Facilitator Worksheet - Dixon Branch Illicit Discharge Investigation

Findings

- High pH, high BOD
- Elevated ammonia, TSS, Turbidity
- Slight trace of chlorine, nitrates, nitrites
- There is a line connected to the storm drain that is not indicated on the GIS map
- Surrounding elements that could cause an illicit discharge:
 - Corner shopping center, middle school, residential homes

Steps to Identify Illicit Discharge

- Check all possible public sources
 - i.e. Wastewater and potable water lines
- Drive all streets in the surrounding area. Check all gutters drains and inlets for discharge matching description discharge in the creek
- Look for illicit discharges entering the storm drains, or someone doing home or business remodeling.
- Use CCTV and/or Dye test method(s) to check storm lines in the area
- Identify additional parameters, collect samples, and send samples to a NELAC certified laboratory
- Alert city departments that operate in the area to keep an eye out for illegal dumping. (Ex. Code Enforcement, City Marshalls Office, Water Utilities)

Conclusion

- After several days of investigation, a city employee noticed maintenance staff at a nearby Middle School dumping white material into the storm drain inlet. This activity was photographed, and SWM issued a Notice-of-Violation to the School District.
- Packaging in the school dumpster indicated a floor finishing compound, a Pro-stripper, and a solvent used for stripping floors.
 - Testing of the discharge indicated minor concentrations of SemiVolatile Organic Compounds, indicating dilution of these materials.
 - MSDS sheet indicates rapid breakdown of compounds in the environment and typically high BOD measurements
- Closed circuit television of the storm drainage system confirmed that the mapped storm sewer system extends about a mile west of the creek up to the Middle School. This storm sewer was not included in prior City mapping of the area.
- TCEQ and EPA were notified. The school district was held responsible for clean-up.