

**HINDS COUNTY**  
**STORMWATER PHASE II PROGRAM**

**B.3 Dye Testing**

1. Prior to performing this test, it is necessary to inform building owners and occupants in advance and gain permission for entry.
2. To perform the test, you need a crew of two or more people (ideally, all with two-way radios). One person is inside the building; the others are stationed at the appropriate storm sewer and sanitary sewer manholes (which should be opened) and/or outfalls. The inside person drops dye into a plumbing fixture (i.e., toilet or sink) and runs a sufficient amount of water to move the dye through the plumbing system. The inside person then radios to the outside crew that the dye has been dropped, and the outside crew watches for the dye in the storm sewer and sanitary sewer, recording the presence or absence of the dye.
3. Local public health and state water quality staff should also be notified.

**B.4. Tracking Illegal Dumping**

1. Report any illegal-dumping behavior (i.e., who illegally dumped and where illegal dumping occurred) to the Hotline.
2. Observe the materials that have been illegally dumped and trace the potential sources of the materials.
3. Note where dumping occurs most often, record patterns of time of day and day of the week, and note common responsible parties.

**OBSERVE!! REPORT!!  
DOCUMENT!!**

**C. Source Elimination**

1. Provide the responsible party (home or business owners) with information about the illegal connections between their buildings and the storm sewer systems, its environmental consequences, the applicable regulations, and how to remedy it.
2. Send the property owner a Notice of Violation (NOV), which may require the violator to take steps such as monitoring, elimination of an illicit connection or discharge, or payment of a fine. Follow enforcement procedures stated in IDDE Ordinance.
3. MS4s and sanitary sewer systems should be inspected periodically and maintained properly to keep them in good repair.
4. Measures should be taken to clean up areas where illegal dumping has taken place, and controls such as signs or access restrictions should be used, as appropriate, to prevent further dumping.
5. Educate businesses, municipal employees, and the general public about the environmental and legal consequences of illegally disposing of waste into the storm sewer system
6. Publicize waste-disposal options, such as used oil recycling and household hazardous waste collections.
7. Keep track of incident locations

**ILLICIT DISCHARGE  
DETECTION AND  
ELIMINATION**



**For more information contact:**  
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Phase II Storm Water Management  
Program  
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Raymond, MS-39154  
(601) 857-8732 or (601) 353-5762  
[www.co.hinds.ms.us/swmp](http://www.co.hinds.ms.us/swmp)**

**Clean Water: It's Up to All of Us!!**



# HINDS COUNTY STORMWATER PHASE II PROGRAM

## What is Illicit Discharge?

An illicit discharge is any discharge to an MS4 that is not composed entirely of storm water. Exceptions are discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities.

## What are Different Pollutants Involved?

Sediments, excess nutrient, debris, household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids, viruses and bacteria are just few common pollutants impacting water quality.

## Why Should We Care?

Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants thereby significantly degrading receiving water quality and threatening aquatic, wildlife, and human health.

## What are the Sources of Illicit Discharges?

Sanitary Wastewater, Effluent from Septic Tanks, Car Wash Wastewater, Radiator Flushing Disposal, Laundry Wastewater, Spills from Roadway Accidents, Improper Disposal of Auto and Household Toxics, Animal Waste, Illegal Dumping and Littering

**KNOW YOUR IDDE ORDINANCE!!**

## A. Detection

### A.1 Identifying Priority Areas

1. Commercial/Industrial Areas.
2. Older areas of town.
3. Areas where there have been repeated complaints.
4. Locations identified from ambient water quality sampling data.

### A.2 Dry-Weather Outfall and/or Manhole Surveys

1. Make visual observations of outfalls during dry weather to look for any non-storm water flows.
2. Enlist a watershed association or other volunteer organization to help with the outfall survey.
3. Notify the public that the survey will be taking place (e.g., send notices to property owners in the area).
4. Keep safety considerations at the forefront of survey procedures at all times.
5. Observe dry-weather flows for odor, color, turbidity, and floatable matter.
6. Observe outfalls for deposits and stains, vegetation, and damage to outfall structures.
7. Fill out Inspection forms during any outfall surveys.
8. Consider taking digital photographs during inspections to document illicit discharge and dumping, problems identified, and progress in detecting and eliminating the source.

**SAFETY FIRST!!!!**

## B. Source Tracing

### B.1 Manhole Observations

Consider following steps to follow dry-weather flows upstream along the conveyance system to bracket the location of the source:

1. Consult the drainage system map.
2. Check the next "upstream" manhole with a junction to see if there is evidence of discharge. You may wish to sample each manhole that has a discharge.
3. Repeat these steps until a junction is found with no evidence of discharge; the discharge source is likely to be located between the junction with no evidence of discharge and the next downstream junction.
4. Be aware of the surrounding areas and look for water in gutters and streets.

### B.2 Smoke testing

1. Prior to performing this test, it is necessary to inform building owners and occupants in the area in advance.
2. This technique involves injecting non-toxic smoke into storm sewer lines and then noting the emergence of smoke from sanitary sewer vents in illegally connected buildings or from cracks and leaks in the storm sewer lines. The injection is accomplished by placing a smoke bomb in the storm sewer manhole below ground and forcing air in after it. Smoke-generating machines can also be used.
3. Test personnel should be stationed at points of suspected illegal connections or cracks/leaks, noting any escape of smoke.
4. It is also advisable to inform the police and fire departments.

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