

## Section 1 - Background Data

The first section of the field sheet is used to record basic data about the potential illicit discharges, including time of day, field crew members, and current and past weather conditions. Much of the information in this section is self-explanatory, and is used to create an accurate record of when, where, and under what conditions data was collected. The land use of the drainage area contributing to the outfall should also be recorded.

### Section 1: Background Data

Description / Location of Suspected Illicit Discharge:		1.	
Date of Observation: ____ / ____ / ____	2.	Time (Military):	3.
Name(s) of Investigator(s):		4.	
Has it rained over 0.10 in. in the last 72 hours?	<input type="checkbox"/> Yes <input type="checkbox"/> No	5.	
Land Use in Drainage Area (Check all that apply):		6.	
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	<input type="checkbox"/> Woods		
<input type="checkbox"/> Commercial	Other: _____		
	Known Industries: _____		
Notes (e.g., origin of outfall, if known):		7.	

Figure 1. Section 1 of the Field Sheet

1. Describe the potential illicit discharge and location. (i.e. Soap suds flowing into ditch at the northeast corner of the intersection of Assembly St. and Main St.)
2. Give the date of the observation. (i.e. 05 / 06 / 2008)
3. Give the time the observation was taken in Military time. (i.e. 1430 hrs = 2:30pm)
4. Name of the observant of the potential illicit discharge.
5. If it rained 0.10 in. or more within in the last 3 days (72 hrs.) then check the 'Yes' box. If not, check the 'No' box.
6. Try to estimate the size of the drainage area and decide which check box best represents the type of land use in the area. Enter alternative drainage area types in the 'Other' space or any known industries in the drainage area in the 'Known Industries' Space.
7. Enter any other information that may be helpful in determining the origin of flow.

## Section 2 - Discharge Structure Description

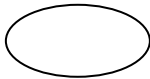
This part of the field sheet is where basic discharge structure characteristics are noted. These include material, and presence of flow at the pipe or channel, as well as the pipe's dimensions. Section 2 of the field sheet also asks if the outfall is submerged in water or obstructed by sediment. It also asks for the amount of flow, if present. If no flow is observed at the outfall, you can skip the next two sections of the field sheet and continue with Section 4.

## Section 2: Discharge Structure Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED	
<input type="checkbox"/> Closed Pipe	1. <input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	2. <input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	3. <input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	4. <u>Circular Pipe Dimensions</u> Diameter: _____ in.  <u>Elliptical Pipe Dimensions:</u> Width: _____ in. Height: _____ in.	5. In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully  With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open Drainage Channel	7. <input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Rip-Rap <input type="checkbox"/> Other: _____	8. <input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	9. Depth: _____ ft. Top Width: _____ ft. Bottom Width: _____ ft.		
Is Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 4</i>			11	
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial Description Details: _____			12	

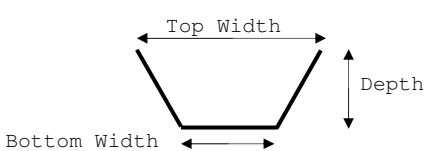
Figure 2. Section 2 of the Field Sheet

- Closed pipes include circular or elliptical pipe shapes. Fill in the entire row of information.
- RCP = Reinforced Concrete Pipe, CMP = Corrugated Metal Pipe, PVC = polyvinylchloride, HDPE = High Density Polyethylene
- Pipe shape.
- Enter the number of pipes.
- Enter the pipe dimensions in the appropriate blanks. The width and height measurements should only be taken on elliptical pipes.

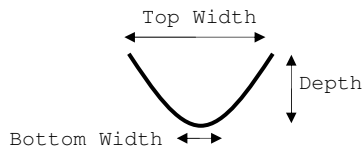


Elliptical Pipe Shape

- Determine whether the pipe is submerged in water or sediments and check the appropriate box.
- Open Drainage Channels can also be ditches.
- Enter the lining of the channel or ditch.
- Enter the shape of the channel or drainage channel.



**Trapezoidal**



**Parabolic**

- Enter the depth, top width, and bottom width dimensions. (see '9.' above)
- Check the appropriate box. If there is flow present the go to section 4.
- Approximate the amount of flow and check the appropriate box.

## Section 3 - Physical Indicators for Flowing Outfalls Only

This section of the ORI field sheet records data about four sensory indicators associated with flowing outfalls - odor, color, turbidity and floatables. Sensory indicators can be detected by smell or sight, and require no measurement equipment. Sensory indicators are important in detecting the most severe or obvious discharges. Section 3 of the field sheet asks whether the sensory indicator is present, and if so, what is its severity, on a scale of one to three.

### Section 3: Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow: <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, Skip to Section 4) <b>1.</b>					
INDICATOR <b>2.</b>	CHECK if Present <b>3.</b>	DESCRIPTION <b>3.</b>	RELATIVE SEVERITY INDEX (1-3) <b>4.</b>		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Sulfide <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Other: _____	<input type="checkbox"/> 1 - Faint	<input type="checkbox"/> 2 - Easily detected	<input type="checkbox"/> 3 - Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: _____	<input type="checkbox"/> 1 - Faint colors	<input type="checkbox"/> 2 - Somewhat visible	<input type="checkbox"/> 3 - Clearly visible
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/> 1 - Slight cloudiness	<input type="checkbox"/> 2 - Cloudy	<input type="checkbox"/> 3 - Opaque
Floatables (Does Not Include Trash)	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____	<input type="checkbox"/> 1 - Few or slight; origin not obvious  Comments:	<input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen)  Comments:	<input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)  Comments:

Figure 3. Section 4 of Field Sheet

1. If the flow has any of the four sensory indicators (odor, color, turbidity, or floatables) then check the 'Yes' box. If not, then go to section 4 or the field sheet.
2. Each row describes one of the four sensory indicators. Odor describes the smell of the discharge. The turbidity can be described as how cloudy the discharge is. Floatables describe what, if anything, is floating on top of the discharge.
3. Check the box if the sensory indicator exists.
4. Describe the severity of the sensory indicator on a scale from one to three. One being the weakest and three being the strongest.

**Section 4 - Physical Indicators for Both Flowing and Non-Flowing Discharge Structures**

Section 4 of the field sheet examines physical indicators found at both flowing and non-flowing discharge locations that can reveal the impact of past discharges. Physical indicators include discharge structure damage, discharge structure deposits or stains, abnormal vegetation growth, poor pool quality, and benthic growth on pipe surfaces. Many of these physical indicators can point to an intermittent or transitory discharge that has occurred in the past, even if the pipe is not currently flowing. Physical indicators are not ranked according to their severity, because they are often subtle, difficult to interpret and could be caused by other sources. Still, physical indicators can provide strong clues about the discharge history of a discharge structure, particularly if other discharge indicators accompany them.

**Section 4: Physical Indicators for Both Flowing and Non-Flowing Discharge Structures**

Are physical indicators that are not related to flow present? <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, Skip to Section 5) <span style="float: right;">1.</span>			
INDICATOR 2.	CHECK if Present 3.	DESCRIPTION 4.	COMMENTS 5.
Discharge Structure Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion <input type="checkbox"/> Channel Erosion	
Deposits / Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: _____	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other: _____	

Figure 4. Section 5 of Field Sheet

1. If the flow has any of the five physical indicators (discharge structure damage, deposits / stains, abnormal vegetation, poor pool quality, or pipe benthic growth) then check the 'Yes' box. If not, then go to section 5 or the field sheet.
2. Each row describes one of the four physical indicators. Benthic growth is
3. Check the box if the physical indicator exists.
4. Use this space to add any additional comments related to the physical indicators.

## Sections 5 – Overall Discharge Characterization

Section 5 of the field sheet describes the overall discharge characterization at the discharge structure. Add the severity index numbers in Section to determine which box to check in Section 5.

### Section 5: Overall Discharge Characterization

- Unlikely       Potential (presence of two or more indicators)
- Suspect (one or more indicators with a severity of 3)
- Obvious

Comments: \_\_\_\_\_

Figure 5. Section 5 of Field Sheet

The user should use their best judgment to determine whether the discharge in question is:

- Unlikely an illicit discharge,
- Potentially an illicit discharge,
- Suspected to be an illicit discharge, or
- Obviously an illicit discharge.

## Sections 6 and 7 – Other Concerns and General Comments

Section 6 allows the observer a place to document other activities that may be negatively affecting the environment such as illegal dumping activities, spills such as oils, greases, paints, etc., and trash.

Section 7 provides the observer a place to make any other general comments related to the observed potential illicit discharge that may not have had an appropriate place on the field sheet.

### Section 6: Other Concerns (e.g., illegal dumping, spills, trash or needed repairs)

Comments: \_\_\_\_\_

Figure 6. Section 6 of Field Sheet

### Section 7: General Comments

Comments: \_\_\_\_\_

Figure 7. Section 7 of Field Sheet



# POTENTIAL ILLICIT DISCHARGE FIELD SHEET INSTRUCTIONS

## Sections 5 - Overall Discharge Characterization

Section 8 of the field sheet is used to record information related to the reporting aspect of the potential illicit discharge and will be completed by the District Maintenance Engineer.

### Section 8: Reporting Information

Comments:	Date Observed:    ___ / ___ / ___
	Time Observed:    _____
Investigated by: _____	Date Investigated: ___ / ___ / ___
Was this illicit discharge reported to SCDHEC? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Reported:    ___ / ___ / ___

Figure 8. Section 8 of Field Sheet