



**CITY OF DELAWARE CITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM
ILLICIT DISCHARGE DETECTION & ELIMINATION PROGRAM
2018 ANNUAL REPORT**

Prepared For

CITY OF DELAWARE CITY



Prepared By

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CITY OF DELAWARE CITY
ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM



2018 ANNUAL REPORT

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Structure Numbers:	
• 0110315786	
• 0110315787	
• 0110315788	



CITY OF DELAWARE CITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM

State Permit No. WPCC 3063A/96

NPDES Permit No. DE 0051071



ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

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1. INTRODUCTION

As part of the City of Delaware City's National Pollutant Discharge Elimination System (NPDES) Permit requirements, KCI Technologies, Inc. (KCI) was contracted to conduct work in support of the City's Illicit Discharge Detection and Elimination (IDDE) Program.

KCI's responsibilities included performing dry weather outfall field screening of the City-owned Municipal Separate Storm Sewer System (MS4) to identify potential illicit discharges (PIDs), and providing on-call investigations of reports of PID investigations.

The City of Delaware City is a Co-permittee on the Phase I MS4 Permit for New Castle County. The permit requires that 20 percent of the City's MS4 be evaluated annually for illicit discharges. KCI used the City's MS4 Mapping, which includes 12 outfalls, to identify outfalls for dry weather outfall field screening. In 2018, KCI field-screened three outfalls to meet the City's Phase I MS4 Permit requirement. There were no 302STOPPIT Hotline reports. The results of the field investigations are described in more detail below.

2. DRY WEATHER OUTFALL FIELD SCREENING

a. **Field Screening Protocol**

Dry weather outfall field screening helps to identify potential illicit discharges. If a discharge is determined to be illicit, KCI staff will track the source of the discharge. All outfall field screening is performed by a two-person field team, allowing for the safe and efficient completion of the work. Detailed information regarding outfall field screening protocol and procedures is located in the *Phase I MS4 Permit IDDE Program Standard Operating Procedures* (KCI, 2018).

b. Field Screening Results

In 2018, KCI field-screened three outfalls for dry weather flow, as listed in **Table 1** and depicted on **Figure 1**. Of the three outfalls field-screened, none had dry weather flow or other signs of illicit discharge (**Table 1**).

Appendix A contains the field data sheets for the three outfalls with no dry weather flow or other signs of illicit discharge.

TABLE 1
2018 DRY WEATHER OUTFALL FIELD SCREENING – INVESTIGATION RESULTS

Structure No.	Investigation Results
0110315786	No flow observed; No evidence of illicit discharge.
0110315787	No flow observed; No evidence of illicit discharge.
0110315788	No flow observed; No evidence of illicit discharge.

FIGURE 1
2018 DRY WEATHER OUTFALL FIELD SCREENING – OUTFALL LOCATIONS





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APPENDIX A

NO FLOW

Structure Numbers:

- 0110315786
- 0110315787
- 0110315788

ILLICIT DISCHARGE DETECTION & ELIMINATION FIELD SHEET

Structure Number: **0110315786**
 Incident ID #: **N/A**
 County: **New Castle**
 Subdivision: **N/A**
 Address/Location **202 Bayard St**

Personnel		MJ, JS
Date		5/8/2018
Time		2:09 PM
Air Temperature (F)		72
Photograph		Yes
Date Last Rain		4/28/2018
Outfall Dimensions (inches)		24
Outfall Shape		Round
Outfall Type		Ductile Iron
Flow Observed		No
Land Use		Residential
Structural Condition		Normal
Erosion (Outfall Area)		None
Algae Growth		No
Vegetative Condition (Outfall Area)		Normal
Flow Rate (cfs)		N/A
Water Temperature (F)		N/A
pH (units)		N/A
Turbidity (ntu)		N/A
Surfactants (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Ammonia (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Potassium (mg/L)	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Odor		None
Deposits/Stains		None
Color		N/A
Floatables		N/A
Determination (From IDDE Flowchart)		No Evidence of Illicit Discharge

**ILLICIT DISCHARGE DETECTION & ELIMINATION
FIELD SHEET**

Structure Number: **0110315787**
 Incident ID #: **N/A**
 County: **New Castle**
 Subdivision: **N/A**
 Address/Location **214 Canal St**

Personnel		MJ, JS
Date		5/8/2018
Time		1:53 PM
Air Temperature (F)		72
Photograph		Yes
Date Last Rain		4/28/2018
Outfall Dimensions (inches)		36
Outfall Shape		Round
Outfall Type		Ductile Iron
Flow Observed		No
Land Use		Residential
Structural Condition		Normal
Erosion (Outfall Area)		None
Algae Growth		No
Vegetative Condition (Outfall Area)		Normal
Flow Rate (cfs)		N/A
Water Temperature (F)		N/A
pH (units)		N/A
Turbidity (ntu)		N/A
Surfactants (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Ammonia (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Potassium (mg/L)	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Odor		None
Deposits/Stains		None
Color		N/A
Floatables		N/A
Determination (From IDDE Flowchart)		No Evidence of Illicit Discharge

**ILLICIT DISCHARGE DETECTION & ELIMINATION
FIELD SHEET**

Structure Number: **0110315788**
 Incident ID #: **N/A**
 County: **New Castle**
 Subdivision: **N/A**
 Address/Location **124 Canal St**

Personnel		MJ, JS
Date		5/8/2018
Time		2:21 PM
Air Temperature (F)		72
Photograph		Yes
Date Last Rain		4/28/2018
Outfall Dimensions (inches)		18
Outfall Shape		Round
Outfall Type		Ductile Iron
Flow Observed		No
Land Use		Residential
Structural Condition		Normal
Erosion (Outfall Area)		None
Algae Growth		No
Vegetative Condition (Outfall Area)		Normal
Flow Rate (cfs)		N/A
Water Temperature (F)		N/A
pH (units)		N/A
Turbidity (ntu)		N/A
Surfactants (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Ammonia (mg/L)	Field Tested:	N/A
	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Potassium (mg/L)	Lab Tested:	N/A
	Follow Up Lab Tested:	N/A
Odor		None
Deposits/Stains		None
Color		N/A
Floatables		N/A
Determination (From IDDE Flowchart)		No Evidence of Illicit Discharge