

**Illicit Discharge Detection and Elimination Program (IDDE)  
City of Phenix City MS4  
Phenix City, Russell and Lee Counties, Alabama  
S&ME Project No. 4482-16-055**



Prepared for:  
The City of Phenix City  
1206 7<sup>th</sup> Avenue  
Phenix City, Alabama 36868

Prepared by:  
S&ME, Inc.  
360D Quality Circle NW, Ste 450  
Huntsville, AL 35806

January 1, 2017



January 1, 2017

City of Phenix City  
1206 7<sup>th</sup> Avenue  
Phenix City, Alabama 36868

Attention: Ms. Angel Moore, P.E.

Reference: **Illicit Discharge Detection and Elimination (IDDE) Program**  
**City of Phenix City MS4**  
Phenix City, Russell and Lee Counties, Alabama  
S&ME Project No. 4482-16-055

Dear Ms. Moore:

S&ME, Inc. has prepared the attached Illicit Discharge Detection and Elimination Program (IDDE) for the City of Phenix City (City) Phase II Small Municipal Separate Storm Sewer System (MS4) in accordance with S&ME Proposal No. 44-16000420 REV 2, dated October 18, 2016 and authorized by Mr. Eddie N. Lowe, Mayor of the City of Phenix City, Alabama and Mr. Wallace B. Hunter, City Manager of the City of Phenix City, Alabama on November 1, 2016.

S&ME, Inc. appreciates the opportunity to provide our services to the City of Phenix City. If you should have questions concerning this report, or if additional information is required, please contact us.

Sincerely,

**S&ME, Inc.**

Christa C. Lyons  
Project Manager

Charles Olige, P.E.  
Senior Engineer



# **ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**

## **JANUARY 1, 2017**

City of Phenix City  
ALR040019  
Phase II Small MS4 NPDES General Permit

Prepared By:



S&ME, Inc.  
360D Quality Circle NW, Suite 450  
Huntsville, Alabama 35806  
Phone (256) 837-8882  
Fax (256) 837-6931

S&ME Project No. 4482-16-055  
© S&ME, Inc., All Rights Reserved



---

## Table of Contents

<b>1.0</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Urbanized Area Designation .....	1
1.2	Phenix City MS4 Area.....	1
1.3	Storm Sewer System.....	1
1.4	Hydrologic Units in the MS4 Area.....	2
1.5	Water Quality Concerns .....	3
1.5.1	<i>Mill Creek</i> .....	3
1.6	Illicit Discharge Detection and Elimination Program Requirements .....	4
<b>2.0</b>	<b>Non-Storm Water Discharges .....</b>	<b>5</b>
2.1	Rationale Statement.....	5
2.2	Authorized Non-Storm Water Discharges.....	5
2.3	Illicit Discharges.....	5
<b>3.0</b>	<b>Identifying Priority Areas .....</b>	<b>6</b>
3.1	Rationale Statement.....	6
3.2	Subwatersheds .....	6
3.3	Age of Infrastructure.....	7
3.4	Land Use and Industrial Density .....	7
3.5	Septic Field Density .....	8
3.6	Number of Past Reports or Complaints .....	8
3.7	Outfall Inspection Results .....	8
3.8	IDP Assessment .....	9
<b>4.0</b>	<b>Field Assessment Activities .....</b>	<b>10</b>
4.1	Rationale Statement.....	10
4.2	Outfall Verification.....	10
4.3	Outfall Identification.....	10
4.4	Dry Weather Monitoring .....	11
<b>5.0</b>	<b>Storm Water Mapping.....</b>	<b>11</b>
5.1	Rationale Statement.....	11



---

5.2	Current Mapping Status .....	11
5.3	Existing Features.....	12
5.4	Future Additions .....	12
<b>6.0</b>	<b>IDDE Ordinance .....</b>	<b>12</b>
6.1	Rationale Statement.....	12
6.2	Prohibit Illicit Discharges .....	12
6.3	Enforcement .....	12
6.4	Evaluation.....	13
<b>7.0</b>	<b>Outfall Reconnaissance Inventory .....</b>	<b>13</b>
7.1	Rationale Statement.....	13
7.2	Prioritization Schedule.....	13
7.3	Responsibility .....	14
7.4	Inspection Conditions .....	14
7.5	Equipment .....	14
7.6	Safety Considerations .....	15
7.7	Inspection Procedure .....	15
7.8	Visual Inspection .....	16
7.9	Field Screening.....	16
7.10	Discharge Sampling .....	17
7.11	Inspection Reporting.....	18
7.12	Outfall Designation .....	18
<b>8.0</b>	<b>IDDE Investigation.....</b>	<b>18</b>
8.1	Storm Drain Network Investigations.....	18
8.2	Drainage Area Investigations .....	19
8.3	On-site Investigations .....	19
8.4	Septic System Investigations.....	19
<b>9.0</b>	<b>Illicit Discharge Elimination.....</b>	<b>19</b>
9.1	Rationale Statement.....	19
9.2	Voluntary Compliance.....	20
9.3	Enforcement Actions.....	20
9.4	Corrective Action Record Keeping .....	20



---

<b>11.0</b>	<b>Public Education .....</b>	<b>21</b>
10.1	Outreach Strategies .....	21
10.1.1	<i>NPDES Industrial Permitting .....</i>	<i>21</i>
10.1.2	<i>Illicit Discharge reporting to ADEM.....</i>	<i>22</i>
10.1.3	<i>Distribute Storm Water Educational Material .....</i>	<i>22</i>
10.1.4	<i>Public Reporting and Tracking System .....</i>	<i>22</i>
10.1.5	<i>Municipal Training.....</i>	<i>22</i>
<b>11.0</b>	<b>Responsible Parties .....</b>	<b>22</b>
11.1	Coordination Between Entities .....	23
<b>12.0</b>	<b>Program Evaluation .....</b>	<b>23</b>
12.1	Rationale Statement.....	23
12.2	IDDE Tracking System.....	23
12.3	Priority Areas .....	23
12.4	Field Screening.....	24
<b>13.0</b>	<b>Agency Certification.....</b>	<b>24</b>

## List of Tables

Table 1-1: Hydrologic Hierarchy.....	2
Table 1-2: Watersheds in the Phenix City MS4 .....	2
Table 1-3: Impaired Waterbody Segments in the Urbanized Area .....	3
Table 3-1: Average Age of Development.....	7
Table 3-2: Potential Generating Sites .....	8
Table 3-3: Septic Field Density .....	8
Table 3-4: Past Illicit Discharge Reports.....	8
Table 3-5: ORI Results from the Previous Reporting Period.....	9
Table 3-6: IDP Calculation – Example 1 .....	9
Table 3-7: IDP Calculation – Example 2 .....	9
Table 8-1: Field Screening Values .....	16
Table 8-2: Illicit Discharge Indicators .....	17
Table 8-3: Laboratory Analysis.....	17
Table 8-4: Outfall Ranking .....	18
Table 11-1: Contacts for IDDE Program Implementation.....	23



## **Appendices**

Appendix I – Figures

Appendix II – Forms

Appendix III – Tables

Appendix IV – Proposed IDDE Ordinance

Appendix V – Flow Charts



## 1.0 Introduction

S&ME, Inc. has prepared this Illicit Discharge Detection and Elimination (IDDE) Program for the City of Phenix City Phase II Small Municipal Separate Storm Sewer System in accordance with S&ME Proposal No. 44-16000420 REV 2, dated October 18, 2016 and authorized by Mr. Eddie N. Lowe, Mayor of the City of Phenix City, Alabama and Mr. Wallace B. Hunter, City Manager of the City of Phenix City, Alabama on November 1, 2016.

The IDDE Program is required by Part III.B.2 of National Pollutant Discharge Elimination System (NPDES) General Permit ALR040019 for discharges from regulated small municipal separate storm sewer systems (MS4s), issued to the *Columbus, Georgia - Alabama Urbanized Area* by the Alabama Department of Environmental Management (ADEM). The urbanized area consists of the following entities: City of Phenix City, City of Columbus, Community of Ladonia, and City of Smiths Station.

### 1.1 Urbanized Area Designation

The Storm Water Phase II Final Rule issued by the United States Environmental Protection Agency (USEPA) in 1999 requires nationwide coverage of all operators of small MS4s located within the boundaries of an "urbanized area" as defined by the latest decennial Census. Based on the results of the 2010 census, the Bureau of the Census has designated the entities listed in Section 1 as the *Columbus, Georgia - Alabama Urbanized Area*. The urbanized area incorporates approximately 87 square miles. A map outlining the approximate boundary of the *Columbus, Georgia - Alabama Urbanized Area* is included in **Appendix I as Figure 1**.

### 1.2 Phenix City MS4 Area

The Phenix City Municipal Separate Storm Sewer System (Phenix City MS4) is defined as the area within both the Phenix City city limits and the urbanized area boundary. The Phenix City MS4 comprises approximately 18.63 square miles (11,921 acres) of the *Columbus, Georgia - Alabama Urbanized Area*. A map outlining the approximate boundary of the Phenix City MS4 is included in **Appendix I as Figure 1**.

### 1.3 Storm Sewer System

A Municipal Separate Storm Sewer System (MS4) is defined by 40 CFR Part 122.26(b)(8) to be a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is:

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- (ii) Designed or used for collecting or conveying storm water;
- (iii) Not a combined sewer; and,





- (iv) Not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

A major outfall is defined by 40 CFR Part 122.26(b)(8) to be a municipal separate storm sewer outfall that discharges from:

- (i) A single pipe with an inside diameter of 36 inches or more;
- (ii) A single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres;
- (iii) A single pipe with an inside diameter of 12 inches or more that receives storm water from lands zoned for industrial activity; or,
- (iv) A single conveyance other than a circular pipe associated with a drainage area of 2 acres or more that receives storm water from lands zoned for industrial activity.

Minor outfalls are smaller than these thresholds. Both major and minor outfalls can be a source of illicit discharges.

#### 1.4 Hydrologic Units in the MS4 Area

The Chattahoochee River is the primary receiving water for the Phenix City MS4. The City's storm sewer system discharges into streams located in three primary watersheds: Mill Creek, Holland Creek, and Cochgaleechee Creek watersheds. Hydrologic Hierarchy, Watersheds, and Subwatersheds are provided in the tables below.

**Table 1-1: Hydrologic Hierarchy**

<b>REGION</b>	03	South Atlantic-Gulf
<b>SUBREGION</b>	03	South Atlantic-Gulf
<b>BASIN</b>	031300	Apalachicola: The coastal drainage and associated waters from the Ochlockonee River Basin boundary to and including the Apalachicola River Basin and the drainage into Apalachicola Bay
<b>SUBBASIN</b>	03130003	Middle Chattahoochee-Walter F. George

**Table 1-2: Watersheds in the Phenix City MS4**

<b>Watershed</b>	<b>HUC</b>	<b>TOTAL AREA (Acres)</b>
Mill - Holland Creek	03130003-0101	15,872



## 1.5 Water Quality Concerns

Section 303(d) of the Clean Water Act (CWA), as amended by the Water Quality Act of 1987, and EPA's Water Quality Planning and Management Regulations (40CFR130) require states to identify waterbodies not in compliance with the water quality standards applicable to their designated use classifications. The identified waters are prioritized based on severity of the pollution. Section 303(d) then requires that total maximum daily loads (TMDLs) be determined for all pollutants causing violation of applicable water quality standards in each identified segment. The TMDL process establishes the allowable loading of pollutants, or other quantifiable parameters for a waterbody, based on the relationship between pollution sources and in-stream water quality conditions.

As mentioned in Section 1.3, the Chattahoochee River is the primary receiving water for the Phenix City MS4. ADEM has identified one impaired stream within the City. The following table summarizes the impairments for Mill Creek.

**Table 1-3: Impaired Waterbody Segments in the Urbanized Area**

ASSESSMENT UNIT ID	WATERBODY NAME	USES	CAUSES	SOURCES
AL03130003-0101-100	Mill Creek	Fish & Wildlife	Organic Enrichment (CBOD, NBOD)	Urban development

### 1.5.1 Mill Creek

According to ADEM's 2016 303(d) list, Mill Creek was identified as being impaired in 2006. Mill Creek originates in Smiths Station and flows in a southeast direction towards Phenix City. The creek discharges into Holland Creek which flows through the City and discharges into the Chattahoochee River. Mill Creek is approximately 9.93 miles long and the impairment is listed for the entire length of the creek.

The Mill Creek watershed is approximately 15,872 acres in size and is highly urbanized with many subdivisions and ongoing construction activities.

Sources of organic enrichment from potential sources within the Mill Creek watershed include:

- Failing septic systems
- Municipal storm water runoff
- Fecal matter from pets and wildlife
- Sanitary Sewer Overflows (SSOs)
- Fertilizer application / yard waste.

Part IV.D of the NPDES General Permit requires that the SWMP include BMPs and control measures specifically targeted to control discharges of pollutants associated with the impairment. The SWMP must also include a monitoring program for parameters attributed to the 303(d) listed impairment.



## **1.6 Illicit Discharge Detection and Elimination Program Requirements**

Part III.B.2 of the NPDES General Permit requires that the Permittee develop and implement an Illicit Discharge Detection and Elimination (IDDE) Program that includes the following:

- 1) Procedures to update a storm water map showing the location of all outfalls, to include the latitude and longitude, the names and location of all receiving waters, and structural BMPs owned, operated, or maintained by the Permittee.
- 2) A description of the ordinance or other regulatory mechanism used to effectively prohibit non-storm water / illicit discharges into the MS4. The ordinance or other regulatory mechanism should be reviewed annually and updated when necessary and should include:
  - escalating enforcement procedures and actions
  - the removal of illicit discharges and the immediate cessation of improper disposal practices upon identification of responsible parties
  - the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4
- 3) Field assessment activities, including visual inspections of priority outfalls, during dry weather and for the purpose of verifying the outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. The description must address the following, at a minimum:
  - A dry weather screening program designed to detect and address non-storm water discharges to the MS4.
  - Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches.
  - Procedures for tracing the source of an illicit discharge, including the specific techniques used to detect the location of the source.
  - Procedures for removing the source of the illicit discharge.
- 4) Procedures to notify ADEM of a suspect illicit discharge entering the MS4 from an adjacent MS4.
- 5) Provide a mechanism for the public to report illicit discharges discovered within the MS4 and procedures for appropriate investigation of such reports.
- 6) Provide a training program for appropriate personnel on identification, reporting, and corrective action of illicit discharges.
- 7) The individual responsible for overall management and implementation of the illicit discharge detection and elimination program and, if different, who is responsible for each of the Best Management Practices (BMPs) identified in the program.



- 8) Procedures for evaluating the success of the IDDE program.

## **2.0 Non-Storm Water Discharges**

### **2.1 Rationale Statement**

Section 402(p)(3)(B)(ii) of the Clean Water Act of 1987 requires that permits for municipal separate storm sewers include a requirement to effectively prohibit non-storm water discharges into the storm sewer system. The Alabama General NPDES Permit authorizes specific non-storm water discharges, provided they do not cause or contribute to a violation of water quality standards and they have been determined not to be substantial contributors of pollutants.

### **2.2 Authorized Non-Storm Water Discharges**

NPDES Permit ALR040019 authorizes the following non-storm water discharges:

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Uncontaminated ground water infiltration
5. Uncontaminated pumped groundwater
6. Discharges from potable water sources
7. Foundation drains
8. Air conditioning condensate
9. Irrigation water (not consisting of treated or untreated wastewater)
10. Rising ground water
11. Springs
12. Water from crawl space pumps
13. Footing drains
14. Lawn watering runoff
15. Individual residential car washing
16. Residual street wash water
17. Discharge or flows from firefighting activities (including fire hydrant flushing)
18. Flows from riparian habitats and wetlands
19. De-chlorinated swimming pool discharges, and
20. Discharge authorized by and in compliance with a separate NPDES permit

### **2.3 Illicit Discharges**

As defined by the Permit, an illicit discharge is any direct or indirect non-stormwater discharge to the stormwater system, except as permitted or exempted by the Alabama General NPDES Permit

Ordinance Chapter 10 ½ Storm Water Management of the City of Phenix City Municipal Code is proposed to be adopted by March 31, 2017. The Ordinance states that the commencement, conduct, or



continuance of any Illicit Discharge to the storm drain system is prohibited, with the exception of the following discharges:

1. Water line flushing or other potable water sources; landscape irrigation or lawn watering (not consisting of treated or untreated wastewater unless authorized by the Agent); diverted stream flows; rising ground water; uncontaminated ground water infiltration to storm drains; uncontaminated pumped ground water; foundation or footing drains (not including active groundwater dewatering systems); crawl space pumps; air conditioning condensation; springs; individual residential car washing, to include charitable car washes; natural riparian habitat or wetland flows; swimming pools (if dechlorinated, typically less than one (1) PPM chlorine); saltwater swimming pool discharges; discharge or flows from firefighting activities (including fire hydrant flushing); residual street wash water; and any other water source not containing Pollutants.
2. Discharges specified in writing by the Agent as being necessary to protect public health and safety.
3. Dye testing, provided verbal notification has been given to the Agent prior to the time of the test.
4. Any Non-Stormwater Discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the EPA, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.
5. Any Non-Stormwater Discharge excluded by the Clean Water Act.

The Ordinance also states: *"The construction, use, maintenance or continued existence of Illicit Connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, Illicit Connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation of this article if the person connects a line conveying sewage to the MS4, or allows such a connection to continue."*

## **3.0 Identifying Priority Areas**

### **3.1 Rationale Statement**

Priority areas within an MS4 are those areas more likely to have illicit discharges. Typically, illicit discharges are not uniformly distributed across a community. Instead, illicit discharges are generally clustered within areas defined by characteristics such as land use or infrastructure age.

### **3.2 Subwatersheds**

The city limits of Phenix City encompasses approximately 27.96 square miles and the Phenix City MS4 is comprised of approximately 18.63 square miles. To assist with data collection and evaluation, fourteen subwatersheds for the waterbodies within the City limits (including several small unnamed tributaries) were delineated using the USGS topographic map. For those subwatersheds which extend beyond the



jurisdictional boundaries of the City, the entire subwatershed will be evaluated to ensure that potential sources of illicit discharges are identified.

A map showing the delineated subwatersheds to which the City discharges is included in **Appendix I** as **Figure 2**.

The City will determine Priority Areas by assigning each subwatershed an Illicit Discharge Potential (IDP) score. The IDP score will be determined by evaluating each subwatershed based on the following characteristics:

- Age of Infrastructure
- Land Use and Industry Density
- Septic System Density
- Number of Past Reports or Complaints
- Outfall Inspection Results

### **3.3 Age of Infrastructure**

Phenix City was initially settled in 1897. The first sanitary sewers were installed at least as early as the 1910s. Areas where the average age of development is over 100 years were constructed before Phenix City established sanitary sewer service and would have been added to the sewer system when it was first constructed. Areas of the Phenix City MS4 where the sanitary sewers are over 50 years old will be considered to have high illicit discharge potential due to the possibility of leaking pipes, improper connections, or modified connections.

Using data provided by the Phenix City Utilities Department, the City will evaluate the delineated subwatersheds and assign an IDP score based on the following criteria.

**Table 3-1: Average Age of Development**

<b>AVERAGE AGE OF DEVELOPMENT (YEARS)</b>	<b>IDP SCORE</b>
<10	1
25-50	2
>50	3

### **3.4 Land Use and Industrial Density**

Commercial sites are frequently a source of illicit discharges, often due to activities such as outdoor washing, vehicle fueling, vehicle repair, or poor dumpster management.

Potential illicit discharge generating sites include permitted commercial sites, as well as those that are exempt from regulatory oversight. For the purpose of assigning an IDP score, the City will determine the number of registered sites within each watershed using data obtained from available public sources such



as MYWATERS Mapping, EPA ECHO Database, and ADEM E-file. An IDP score will be assigned for each watershed based on the following criteria.

**Table 3-2: Potential Generating Sites**

POTENTIAL SITES PER SQUARE MILE	IDP SCORE
<3	1
3-10	2
>10	3

### 3.5 Septic Field Density

While the majority of the City is currently on sewer service, some areas or individual lots remain on septic systems. Septic systems are known potential sources of illicit discharges.

The City will evaluate the delineated subwatersheds and assign an IDP score based on the following criteria.

**Table 3-3: Septic Field Density**

NUMBER OF SEPTICE FIELDS PER SQUARE MILE	IDP SCORE
<10	1
20-100	2
>100	3

### 3.6 Number of Past Reports or Complaints

Any area with a history of past illicit discharge reports or complaints will be considered to have illicit discharge potential. The City will evaluate the delineated subwatersheds and assign an IDP score based on the following criteria.

**Table 3-4: Past Illicit Discharge Reports**

NUMBER OF REPORTS / COMPLAINTS IN PAST 2 YEARS	IDP SCORE
<5	1
5-25	2
>25	3

### 3.7 Outfall Inspection Results

Data from the outfall inspections conducted during the previous reporting period will be analyzed to designate each subwatershed as having obvious, suspect, possible, or unlikely discharge potential. Subwatersheds containing outfalls with obvious or suspect illicit discharges will be prioritized.



**Table 3-5: ORI Results from the Previous Reporting Period**

OUTFALL RANKING	IDP SCORE
UNLIKELY	1
POTENTIAL	2
SUSPECT	3
OBVIOUS	4

### 3.8 IDP Assessment

The delineated subwatersheds will be analyzed each year to determine the priority areas for the upcoming year’s screening. Examples of how IDP is assessed are shown in Tables 9 and 10. A worksheet for subwatershed scoring is included in **Appendix II**.

**Table 3-6: IDP Calculation – Example 1**

SUBWATERSHED CRITERION	RESULTS	IDP SCORE
Average Age of Development	75 years	3
Number of Potential Generating Sites	3 sites	2
Number of Septic Fields Per Square Mile	1 septic field per square mile	1
Number of IDDE Reports in Past 2 Years	8 (2012) + 21 (2013) = 29	3
ORI Results	1 obvious discharge	4
<b>TOTAL IDP SCORE – EXAMPLE 1</b>		<b>13</b>

**Table 3-7: IDP Calculation – Example 2**

SUBWATERSHED CRITERION	RESULTS	IDP SCORE
Average Age of Development	9 years	1
Number of Potential Generating Sites	0 sites	1
Number of Septic Fields Per Square Mile	37 septic field per square mile	2
Number of IDDE Reports in Past 2 Years	5 (2012) + 12 (2013) = 17	2
ORI Results	All outfalls labeled “unlikely”	1
<b>TOTAL IDP SCORE – EXAMPLE 2</b>		<b>7</b>

Based on the five criteria, the lowest possible IDP score is a 5. The highest possible IDP score is a 16. **Priority watersheds are defined as those having an IDP score between 10 and 16.** Therefore, the subwatershed in Example 1 would be designated a Priority Area. The subwatershed in Example 2 would not.



## 4.0 Field Assessment Activities

### 4.1 Rationale Statement

The City will conduct field assessment activities for the purpose of verifying outfall locations, identifying previously unknown outfalls, and locating, identifying, and correcting illicit discharges to the MS4.

### 4.2 Outfall Verification

Probable outfalls may be identified during mapping activities, during review of proposed development plans, or through illicit discharge reports. When a probable outfall is identified, it will be added to the storm water system map and labeled as unverified.

The City will verify probable outfalls through field observation. Probable outfalls will be verified **within 12 months** of being added to the storm water system map.

Field observation to verify mapping data includes collection and confirmation of the following information:

1. Outfall coordinates
2. Conveyance type (ditch, culvert, pipe, etc.)
3. Conveyance shape
4. Conveyance size (pipe diameter, ditch width and depth, box culvert dimensions, etc.)
5. Conveyance material (RCP, PVC, CMP, etc.)
6. Outfall condition
7. Outfall elevation
8. Pictures of the outfall, with outfall identification shown in the picture

The outfall verification data may be recorded on the Outfall Reconnaissance Inventory Field Sheet (located in **Appendix II**) or on a separate form. Outfall verification may be conducted in conjunction with dry-weather monitoring activities discussed in Section 7.

### 4.3 Outfall Identification

The City of Phenix City Engineering Department has previously identified approximately 300 outfalls within the City Limits of Phenix City that are depicted on **Figure 3** in **Appendix I**. The City is re-evaluating their outfall inventory by updating the outfall criteria and observation methods. As of December 2016, 70 outfalls that were easily assessable have been re-evaluated and inspected. The 70 outfalls are provided in **Appendix III**. The current storm sewer map is included in **Appendix I** as **Figure 4**.

The remaining outfalls will be verified by **March 31, 2021**.

The City has implemented a stream-walking program designed to identify previously unknown outfalls and evaluate previously identified outfalls to the MS4. There approximately 40.80 miles of total stream length (inventory) within the MS4 area. Starting at the locations where each waterbody exits the MS4

boundary, City personnel will move upstream to identify points where storm water discharged within the City limits enters the stream.

Field observation to identify outfalls includes collection of the following data:

1. Outfall coordinates
2. Conveyance type (ditch, culvert, pipe, etc.)
3. Conveyance shape
4. Conveyance size (pipe diameter, ditch width and depth, box culvert dimensions, etc.)
5. Conveyance material (RCP, PVC, CMP, etc.)
6. Outfall condition
7. Outfall elevation
8. Surrounding land use
9. Pictures of the outfall, with outfall identification shown in the picture

The outfall identification data may be recorded on the Outfall Reconnaissance Inventory Field Sheet (located in **Appendix II**) or on a separate form. Outfall identification may be conducted in conjunction with dry-weather monitoring activities discussed in Section 7.

The City plans to complete an average of six to eight miles of stream inventory per reporting period. Based on the stream lengths, the anticipated date of completion for the current permit cycle is **March 31, 2021**.

The City will continue to update the Storm Sewer GIS Map as additional outfalls are identified.

#### **4.4 Dry Weather Monitoring**

The City will perform dry weather monitoring of known outfalls as detailed in Section 7.

## **5.0 Storm Water Mapping**

### **5.1 Rationale Statement**

Accurate and up-to-date maps of the storm sewer system are critical to the implementation of the IDDE program. Maps are used to direct field crews, locate outfalls, assess illicit discharge potential, track reports, and track corrective actions.

### **5.2 Current Mapping Status**

The City has completed the storm water system map to include waters of the State, known outfalls, and the existing storm sewer system. As previously discussed, the City is evaluating the identified outfalls. As the outfalls are evaluated they will be added to the storm water system map.

The City will continue to update the existing map as storm drain features are identified.

### 5.3 Existing Features

Existing storm drain features such as ditches or swales were mapped using both aerial photography and field observations. Natural drainage features that are mapped using aerial photography will be verified by City personnel or contracted crews in conjunction with the stream-walking program.

As a component of the stream-walking program discussed in Section 4.3, City personnel or contracted crews will also collect GPS data to map natural drainage features not included in the aerial mapping. This data will be collected as needed.

### 5.4 Future Additions

Proposed additions to the Phenix City MS4, including new storm sewers and drainage ditches associated with new development, will be mapped based on the civil plans provided to the City. Plans will be provided by developers (preferably in electronic format) and added to the GIS database.

Outfalls from proposed development will be verified after construction is complete using the procedure outlined in Section 4.2.

## 6.0 IDDE Ordinance

Part III.B.2.(a)(ii) of NPDES Permit ALR040004 requires the City of Phenix City to effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the storm sewer system that are not listed in Part I.B. of the Permit, and implement appropriate enforcement procedures and actions.

Ordinance Chapter 10 ½ Storm Water Management of the City of Phenix City Municipal Code is proposed to be adopted by March 31, 2017. A copy of the full IDDE ordinance, including definitions and a listing of discharges specifically or conditionally allowed, is included in **Appendix IV**.

### 6.1 Rationale Statement

The purpose of the illicit discharge ordinance is to provide legal authority to the City to prohibit illicit discharges, investigate suspected illicit discharges, require elimination of illicit discharges, and carry out enforcement actions.

### 6.2 Prohibit Illicit Discharges

Section 10 ½-6(a) of the IDDE ordinance prohibits non-storm water discharges into the storm sewer system, with the exception of those non-storm discharges explicitly allowed by NPDES Permit ALR040019. Section 10 ½-6(b) of the IDDE ordinance prohibits illicit connections.

### 6.3 Enforcement

Section 10 ½-3 of the IDDE ordinance states, "*The City shall administer, implement, and enforce the provisions of this article through the Agent.*"



Section 10 ½-9 and Section 10 ½-13 provides the City with the ability to perform inspections at construction sites and industrial facilities, trace suspected illicit discharges, require elimination of confirmed illicit discharges, and compel compliance with the ordinance.

Section 10 ½-13 grants the City the ability to issue a Notice of Violation (NOV) to an individual or business who has *"violated a prohibition or failed to meet a requirement of this article."* This written NOV may order compliance to the individual or business. This section describes the enforcement actions available to the City. Enforcement actions include:

1. performance of monitoring, analyses, and reporting
2. elimination of illicit connections or illicit discharges
3. abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property
4. payment of a fine to cover administrative and remediation costs
5. implementation of source control or treatment BMPs

Section 10 ½-15 authorizes the City to enter private property and to take any and all measures necessary to abate the violation. Section 10 ½-18 and 10 ½-19 authorize the City to declare violations as a public nuisance and/or criminal prosecution.

## **6.4 Evaluation**

Ordinance Chapter 10 ½ Storm Water Management will be reviewed on an annual basis and updated regularly. The ordinance will be evaluated on its effectiveness in addressing identified illicit discharges and preventing repeat offenders.

## **7.0 Outfall Reconnaissance Inventory**

The City will conduct an Outfall Reconnaissance Inventory (ORI) to visually inspect each known outfall from the City's storm water drainage system to identify areas of pollution or non-storm water discharges.

### **7.1 Rationale Statement**

Visual inspection of outfalls can identify problem areas without the need for in-depth laboratory analysis. Indicators of potential illicit discharges include outfalls that are flowing during dry weather, indicating a potential illicit connection, or outfalls that have high turbidity, strong odors, or unusual colors.

### **7.2 Prioritization Schedule**

The City or trained subcontractors will conduct visual inspections of all identified outfalls within the City at least once during each five-year permit cycle.

Outfalls in priority areas that have been identified based on the criteria discussed in Section 3 of this plan will be visually inspected once per year.

### 7.3 Responsibility

ORI inspections are the responsibility of the **City Engineer**. Inspections may be performed by City staff or by subcontracted crews. All field reports will be reviewed by the **City Engineer**.

### 7.4 Inspection Conditions

ORI inspections should be conducted when the outfall is accessible, unobstructed, and when there will be no storm water flows.

The preferred conditions for outfall inspections include:

- Dry season (e.g., summer or early fall)
- No rainfall over 0.1 inch in the previous 48 hours
- Recently mowed, low vegetation, or leaf-off conditions

Field crews should allow three to four days of an antecedent dry period before starting or resuming inspections after long periods of heavy rain.

### 7.5 Equipment

Prior to conducting field work, crews should assemble all required equipment listed below and review records from prior inspections in the same area to become familiar with the outfall locations and any potential inspection challenges. Field crews should prepare for consecutive days of field work when possible.

1. Minimum 2 person crew when unsafe conditions exist
2. Safety gear (e.g., vest, hard hat, cones)
3. City identification
4. Field notebook and pencils
5. Outfall Reconnaissance Inventory Field Sheet
6. Map or aerial photo of inspection area
7. GPS unit with charged battery
8. Cell phone with charged battery
9. Digital camera with charged battery
10. Compass
11. Machete or clippers
12. Flash light or headlamp with charged battery
13. Tape measure
14. Dry erase board and marker (to identify outfall in photos)
15. First aid kit
16. Stopwatch or watch with second hand
17. Clear 1-liter sample bottle to evaluate field parameters
18. Sampling kits (see Section 7.9)
19. Cooler with ice

20. Permanent marker
21. Thermometer
22. pH probe
23. Ammonia test strips
24. Nitrile or latex gloves
25. Wide-mouth container
26. Hand sanitizer

## 7.6 Safety Considerations

Health and safety considerations for outfall inspection and sampling include, but are not limited to, the potential for contact with:

- Contaminated water
- Sharp debris and objects
- Wild animals
- Landowners
- Confined spaces

Field crews should be comprised of at least two individuals, each equipped with proper footwear (e.g., sturdy waterproof boots or waders) and gloves (e.g., neoprene, latex, or rubber).

Private properties should not be accessed unless proper notification has been provided, preferably in advance. Field crews should carry identification or wear clothing that identifies them as municipal workers or subcontractors.

It is recommended that field crews be vaccinated against Hepatitis B, particularly if the crews will be accessing waters known to be contaminated with illicit sewage discharges.

A confined space refers to a space that has limited openings for entry and exit, unfavorable natural ventilation that could contain or produce hazardous atmospheres, and is not intended for continuous employee occupancy. Examples of confined spaces field crews might encounter are manholes or tunnels. In the event a confined space is encountered during an IDDE investigation, the space will be investigated using cameras. **Under no circumstances should inspection personnel enter a confined space.**

If confined space entry is necessary to complete the IDDE investigation, the **City Engineer** may coordinate with the Utilities Department to locate City personnel with the appropriate confined space entry training and equipment. Under no circumstances should any person enter a confined space until all required safeguards have been accomplished.

## 7.7 Inspection Procedure

The ORI inspection procedure includes the following activities:

1. Visually inspect the outfall and the immediate surrounding area



2. Photograph the current conditions (using the whiteboard to identify the outfall in the photos)
3. Complete the Outfall Reconnaissance Inventory Field Sheet

If flow is observed continue with steps 4 and 5.

4. Measure observed flow by timing how long it takes to fill a wide-mouth container of known volume
5. Perform field screening of observed flow

Potential illicit discharges are indicated by outfalls that have flow in dry weather and/or foul odors or discolored water in or around the outfall pipe. During field inspections, crews should also note whether outfalls have maintenance issues, such as damaged infrastructure or trash accumulation.

When a potential illicit discharge is identified, field crews will photograph the discharge and outfall, then conduct a brief visual inspection of the surrounding area to identify possible sources of the discharge.

A flow chart outlining the screening and sampling procedure is included in **Appendix V**.

## 7.8 Visual Inspection

Visual observations are used to document conditions at the outfall and complete the Outfall Reconnaissance Inventory Field Sheet (see **Appendix II**). Sections 1, 2, and 5 of the Field Sheet require information on outfall location, surroundings, condition, and type. Sections 3 and 4 of the Field Sheet are used to record the following dry-weather flow observations:

- Flow rate
- Color of discharge
- Odor
- Turbidity
- Floatables

## 7.9 Field Screening

Where dry weather flows are noted, but no obvious illicit discharge is identified, field crews will screen the discharge for indicators of illicit discharges. Field screening will include testing for temperature, pH, and ammonia.

**Table 8-1: Field Screening Values**

PARAMETER	UNLIKELY	SUSPECT
Temperature	<85°F	>85°F
pH	5.5 to 9.0	<5.5 or >9.0
Ammonia	<1 mg/L	>1 mg/L



Sanitary wastewater and certain industrial discharges can substantially increase outfall discharge temperatures. Elevated discharge temperatures may indicate a sanitary or industrial illicit discharge. Discharge temperatures over 90 °F indicate an obvious illicit discharge, likely due to an industrial source such as cooling water or boiler blowdown.

Extreme pH levels can indicate the presence of an industrial illicit discharge.

Ammonia concentrations in groundwater or tap water are typically low. High ammonia concentrations in dry-weather flows may indicate the discharge of sanitary wastewater or liquid wastes from some industrial sites.

### 7.10 Discharge Sampling

If a discharge has a severity index of 3 on one or more indicators in Section 4 of the ORI Field Sheet, or if field screening results indicate a suspect discharge, field crews will collect samples to be analyzed for the following parameters:

**Table 8-2: Illicit Discharge Indicators**

PARAMETER	INDICATOR
Surfactants	> 0.25 mg/L indicates discharge is contaminated by sewage or wash water
Fluoride	> 0.13 and < 0.6 mg/L indicate tap water source > 0.6 mg/L indicates industrial source
Ammonia (NH <sub>3</sub> )	A/P ratio > 1 indicates sewage; A/P ratio < 1 indicates wash water ≥50 mg/L indicates industrial discharge
Potassium	A/P ratio > 1 indicates sewage; A/P ratio < 1 indicates wash water ≥20 mg/L indicates industrial discharge
Total Phosphorous	> 0.4 mg/L indicates contamination from lawn practices, agriculture, sewage, or wash water

The table below provides the preferred laboratory method, sampling container, required preservative, and analysis hold time for each parameter. The City will use this as a guideline for sampling protocols.

**Table 8-3: Laboratory Analysis**

PARAMETER	EPA METHOD	CONTAINER	PRESERVATIVE	HOLD TIME
MBAS (Surfactants)	5540 C-2011	HDPE – 1 L	None	<b>48 hours</b>
Ammonia Nitrogen	350.1	HDPE – 500 mL	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> + H <sub>2</sub> SO <sub>4</sub>	28 days
Fluoride	300.0	HDPE – 125 mL	None	28 days
Total Phosphorus	365.2	HDPE – 250 mL	H <sub>2</sub> SO <sub>4</sub>	28 days
Potassium	200.7	HDPE – 500 mL	HNO <sub>3</sub>	180 days





## 7.11 Inspection Reporting

Completed ORI Field Sheets, photos, and additional information collected during the ORI inspection will be submitted to the **City Engineer** within 48 hours of completion of the inspection.

If the inspection crew encounters a transitory discharge, such as a liquid or oil spill, during inspection activities, the observed spill or environmental hazard will be immediately reported to the **City Engineer**.

## 7.12 Outfall Designation

Data from each ORI Field Sheet will be analyzed to designate the observed outfall as having obvious, suspect, possible, or unlikely discharge potential.

Discharges with an “obvious” ranking will be investigated within 5 days of determination, assuming the source was not identified at the time the discharge was observed. Discharges with a “suspect” ranking will be investigated within 7 days. Discharges that have a “potential” ranking will be investigated within 14 days. Discharges with an “unlikely” ranking will be noted for comparison during future inspections. Investigations will generally follow the procedures outlined in Section 8.

**Table 8-4: Outfall Ranking**

RESPONSE TIME	RANKING	CHARACTERISTICS
5 days	Obvious	Outfalls where there is an illicit discharge that doesn't require sample collection for confirmation
7 days	Suspect	Flowing outfalls with high severity (ranking of 3) on one or more physical indicators
14 days	Potential	Flowing or non-flowing outfalls with presence of two or more physical indicators
-	Unlikely	Non-flowing outfalls with no physical indicators of an illicit discharge

## 8.0 IDDE Investigation

Once an illicit discharge is suspected or detected at an outfall or in a stream, one of four types of illicit discharge investigations is triggered to track down the source:

- Storm drain network investigations
- Drainage area investigations
- On-site investigations
- Septic system investigations

### 8.1 Storm Drain Network Investigations

Storm sewer investigations use field crews to trace the source of a discharge problem to a single segment of a storm sewer. The investigation starts at the outfall and works progressively up the trunk from the outfall. Common investigative methods include:

- Visual inspection at manholes
- Sandbagging or damming the trunk
- Dye testing
- Smoke testing
- Video assessment

## 8.2 Drainage Area Investigations

Drainage area investigations are initially conducted in the office, and involve a parcel by parcel analysis of potential generating sites within the drainage area of the suspect outfall. Drainage area investigations are appropriate when the flow type in the discharge appears to be specific to a certain type of land use or generating site.

These investigations may include the following techniques:

- Analysis of land use
- Obtaining permit information from the ADEM
- Review of as-built drawings
- Aerial photography analysis
- Infrared aerial photography analysis

## 8.3 On-site Investigations

On-site investigations are typically performed by dye testing the plumbing systems of households and buildings. Where septic systems are prevalent, inspections of tanks and drain fields may be needed.

## 8.4 Septic System Investigations

If a septic system is suspected as the source of an illicit discharge, the City will notify the Russell County or Lee County Health Department, Environmental Services Division. Once a complaint is received, the Health Department should visit the property to inspect and verify the complaint. If problems are observed with the septic system, the Health Department will issue a Notice to the property owner requiring corrective actions within a certain timeframe, typically 30 days.

The **City Engineer** will be responsible for coordinating with the Russell County Health Department, Lee County Health Department, and the Phenix City Utilities Board to confirm that the required corrective actions have been completed.

## 9.0 Illicit Discharge Elimination

### 9.1 Rationale Statement

Following the identification of an illicit discharge or connection, the City will first attempt to secure voluntary compliance through education. If corrective actions are not taken, the City will respond to identified illicit discharges, illicit connections, or illegal dumping activities using the enforcement actions defined in Ordinance Chapter 10 ½ Storm Water Management.



Under the provisions of the IDDE ordinance discussed in Section 6 of this plan, the City may issue a Notice of Violation.

## 9.2 Voluntary Compliance

When an illicit discharge or illicit connection is identified, the City will first pursue voluntary compliance through responsible party education. Business operators and property owners may not be aware of illicit connections or illegal discharge activities on their property, or the illicit discharge/connection may have been legal at one time. In these cases, the non-compliance may be adequately addressed by providing information about the connection or operation, the environmental consequences of the illicit discharge, and suggestions on how to remedy the problem.

Property owners and/or operators will be notified that the identified illicit discharge or illicit connection must be corrected in a timely manner and that the City will conduct a follow-up site visit to verify compliance. Field staff should also provide the property operator with an educational brochure targeting illicit discharge violations and a copy of the IDDE ordinance.

## 9.3 Enforcement Actions

When voluntary compliance does not produce the desired result, the City is required to pursue follow-up enforcement action.

Section 10 ½-13 grants the City the ability to issue a Notice of Violation (NOV) to an individual or business who has "*violated a prohibition or failed to meet a requirement of this article.*" This written NOV may order compliance to the individual or business. This section describes the enforcement actions available to the City. Enforcement actions include:

1. performance of monitoring, analyses, and reporting
2. elimination of illicit connections or illicit discharges
3. abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property
4. payment of a fine to cover administrative and remediation costs
5. implementation of source control or treatment BMPs

Section 10 ½-15 authorizes the City to enter private property and to take any and all measures necessary to abate the violation. Section 10 ½-18 and 10 ½-19 authorize the City to declare violations as a public nuisance and/or criminal prosecution. All enforcement actions will be the responsibility of the **City Engineer**.

## 9.4 Corrective Action Record Keeping

When a suspect illicit discharge or illicit connection is identified, the **City Engineer** will open a case log detailing:

- Type of suspected discharge
- Location of suspected discharge
- Copy of the ORI or citizen report



- IDDE investigation activities and dates
- IDDE investigation results
- Responsible party information
- All communications with the responsible party
- Proof of corrective actions

Throughout the problem investigation and corrective action activities, all information related to the incident or property in question should be documented in the case log.

## **10.0 Public Education**

Part III.B.2 of NPDES permit ALR040019 requires that the City address the following:

- 1) Procedures to notify ADEM of a suspect illicit discharge entering the MS4 from an adjacent MS4.
- 2) Provide a mechanism for the public to report illicit discharges discovered within the MS4 and procedures for appropriate investigation of such reports.
- 3) Provide a training program for appropriate personnel on identification, reporting, and corrective action of illicit discharges.

The City has selected outreach activities that educate the public and businesses on how they as individuals or how their business activities can impact water quality and how water quality impacts effect each individual and business. This measure is intended to reduce pollutants at the source by helping dischargers understand the potential negative consequences of their activities.

## **10.1 Outreach Strategies**

### *10.1.1 NPDES Industrial Permitting*

As authorized by the Clean Water Act, the NPDES Permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Title 40, Part 122 of the Code of Federal Regulations (40CFR122) specifies that discharges associated with certain industrial activities must obtain an NPDES permit. The ADEM currently provides for individual and general NPDES permitting.

Information pertaining to permitted facilities will be obtained from available public sources such as MYWATERS Mapping, EPA ECHO Database, and ADEM E-file and incorporated into the Storm Water System Map. This information will be used in conjunction with the storm water system mapping and monitoring data to evaluate potential sources of storm water pollution and to identify unpermitted facilities.

Unpermitted facilities that require an NPDES permit will be reported to the Industrial Section of the ADEM. The City of Phenix City will rely on the ADEM for industrial NPDES permitting and enforcement.



### *10.1.2 Illicit Discharge reporting to ADEM*

If the City identifies a suspect illicit discharges entering the MS4 from an adjacent MS4, the City will contact the adjacent MS4 with the pertinent details. The City will notify ADEM if the adjacent MS4 does not respond and eliminate the discharge. The City will rely on the ADEM for enforcement.

### *10.1.3 Distribute Storm Water Educational Material*

The City will prepare and distribute educational materials highlighting identification and reporting of potential illicit discharges at selected public locations and events. The educational materials may include information on proper disposal of hazardous household wastes, pesticide or fertilizer use, vehicle washing, septic tank maintenance, or runoff management.

### *10.1.4 Public Reporting and Tracking System*

The City will create a reporting and tracking system for illicit discharges (including spills or illegal dumping), impaired waterways, and violations of ordinances relating to storm water pollution. The selected system will provide for anonymous reporting. The City will publicize the selected illicit discharge reporting method on the storm water webpage on the City website.

Records of public complaints will include:

- Date, time, and description of the complaint
- Location of subject construction sites
- Identification of any actions taken (inspections, enforcement, corrections, etc.) that are sufficient to cross-reference inspection and enforcement records

The City publicizes the reporting methods on provided educational materials and the storm water webpage. The City will evaluate the current public reporting and tracking methods annually.

### *10.1.5 Municipal Training*

City employees will participate in annual training regarding the prevention of storm water pollution at municipal facilities or related to municipal activities. This training will focus on identification of illicit discharges as well as the prevention of storm water pollution at municipal facilities or related to municipal activities. Municipal workers will be trained in the Specific municipal operations such as fueling, vehicle maintenance, vehicle washing, paint and paint waste storage and disposal, and used oil disposal may be addressed. The training session will be conducted annually during each reporting period.

Municipal workers will be notified of the procedures for reporting suspected illicit discharges to the City Engineer, including the preferred method of contact (email) and the information to be included in the report (e.g., location, date, time, observations).

## **11.0 Responsible Parties**

The **City Engineer** is responsible for the coordination and implementation of the IDDE Program.



### 11.1 Coordination Between Entities

Coordination between departments and individuals within Phenix City is critical to effective implementation of the IDDE Program. The **City Engineer** is responsible for overseeing the IDDE Program and coordinating with other municipal or county departments to ensure that outfalls are identified, inspections are conducted, reports are received, data is mapped, and enforcement actions are taken.

Departments involved in executing the components of the IDDE program are:

**Table 11-1: Contacts for IDDE Program Implementation**

DEPARTMENT	CONTACT	PHONE
Phenix City Public Works Department	Division Chief	334-448-2760
Phenix City Building Department	Chief Building Inspector	334-448-2740
Phenix City Utilities Department	Utilities Engineer	334-448-2880
Russell County Health Department	Environmental Services	334-297-0251
Lee County Health Department	Environmental Services	334-745-5765

## 12.0 Program Evaluation

### 12.1 Rationale Statement

The IDDE program is currently based on assumptions of illicit discharge types and potential. As the program moves forward and more data become available, the IDDE plan will be adapted to reflect the actual scope and nature of illicit discharges within the Phenix City MS4.

### 12.2 IDDE Tracking System

Suspected illicit discharges will be logged in a case file and identified on the storm water system map. The data collected in the tracking system will be reviewed annually to help identify common illicit discharge types and locations.

As specific illicit discharges are identified, the monitoring results may be used to compile benchmarks for common illicit discharge types. The indicators listed in Section 7.10 may require adjustment for conditions specific to Phenix City, Alabama.

Results of the tracking system evaluation and/or indicator benchmark assessment will be discussed in the Annual Report.

### 12.3 Priority Areas

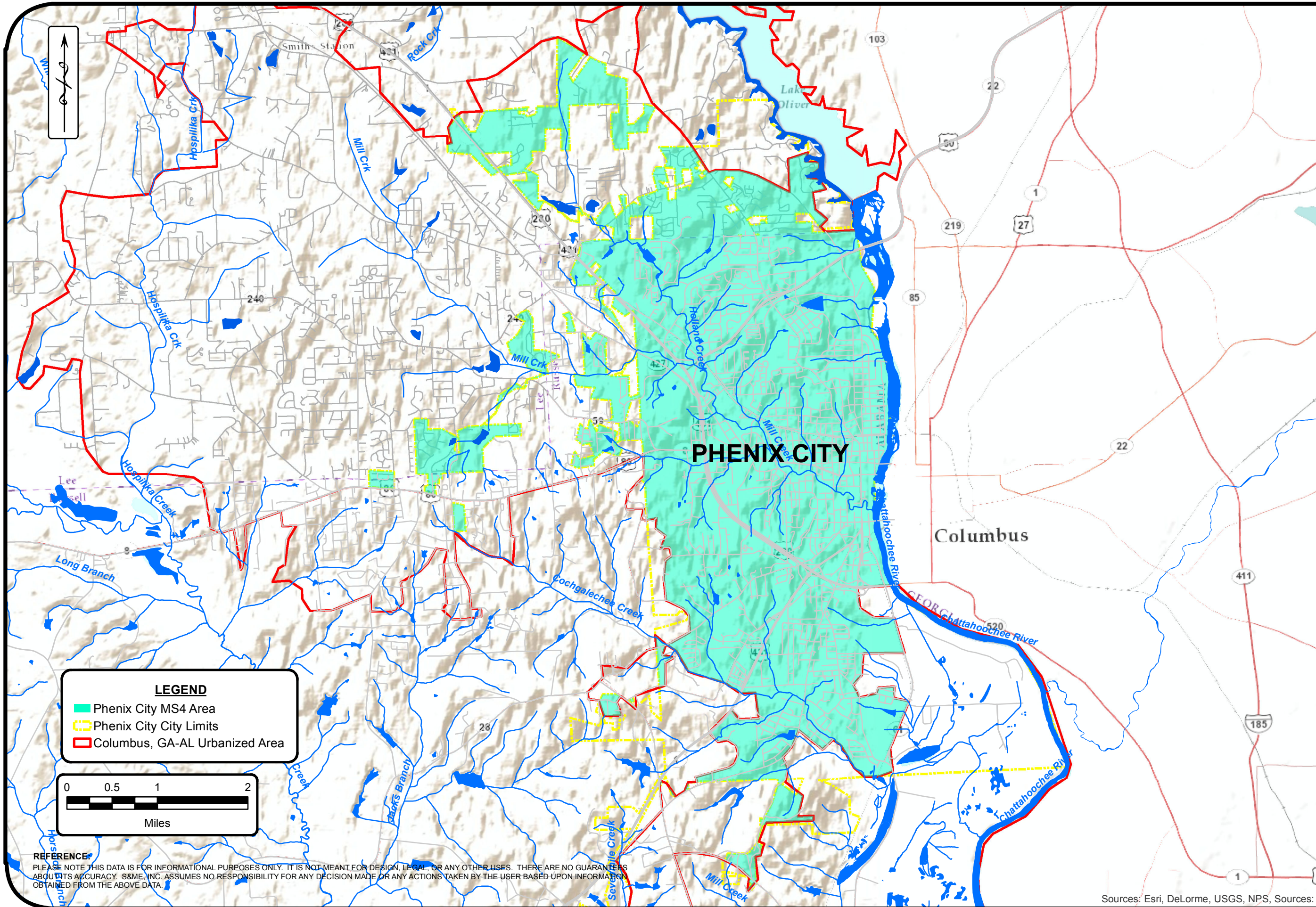
Currently, priority subwatersheds are identified based on age of infrastructure, land use and industrial density, septic field density, number of past illicit discharge reports or complaints, and the outfall inspection results. Illicit discharge potential scores are calculated using the methods described in Section 3 of this plan.



## **Appendices**

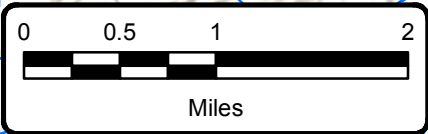


## **Appendix I –Figures**



**LEGEND**

- Phenix City MS4 Area
- Phenix City City Limits
- Columbus, GA-AL Urbanized Area



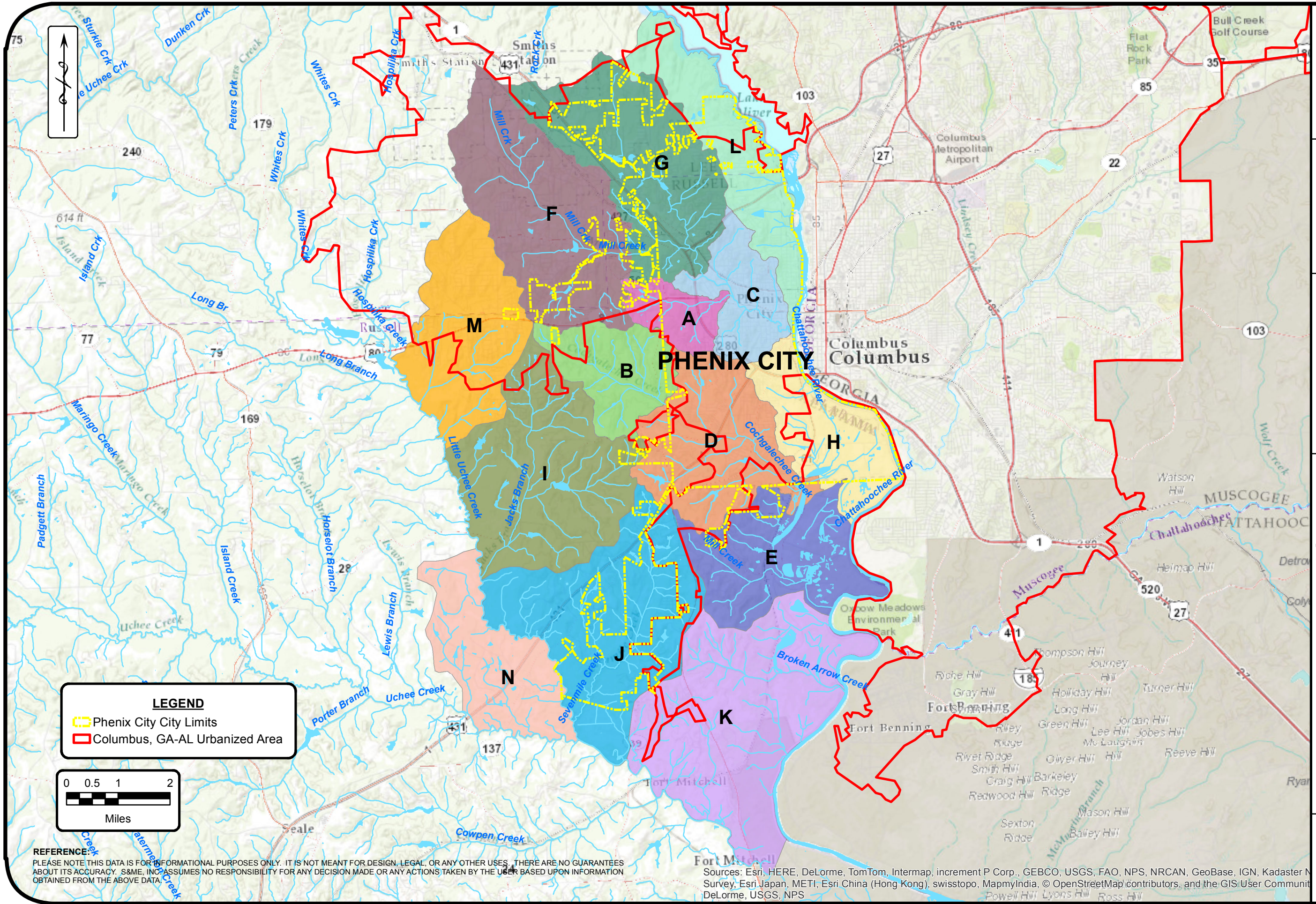
**REFERENCE:**  
 PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES. THERE ARE NO GUARANTEES ABOUT ITS ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA.

SCALE: 1:63,360	DATE: 11/17/16	DRAWN BY: EJK
PROJECT NO: 4482-16-055		CHECKED BY: CCL
NPDES NO: ALR040019		

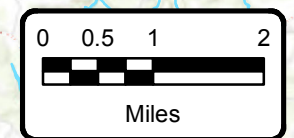
**S&ME**  
 WWW.SMEINC.COM

**PHENIX CITY MS4**  
 PHENIX CITY URBANIZED AREA  
 PHASE II SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM

Sources: Esri, DeLorme, USGS, NPS, Sources:



**LEGEND**  
 [Yellow dashed line] Phenix City City Limits  
 [Red solid line] Columbus, GA-AL Urbanized Area



**REFERENCE:**  
 PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES. THERE ARE NO GUARANTEES ABOUT ITS ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA.

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NV, Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, DeLorme, USGS, NPS

SCALE: 1:110,000	DATE: 12/21/16
PROJECT NO: 4482-16-055	DRAWN BY: EJK
NPDES NO: ALR040019	CHECKED BY: CCL

**PHENIX CITY MS4  
 DELINEATED DRAINAGE BASINS**

PHENIX CITY URBANIZED AREA  
 PHASE II SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM

FIGURE NO.  
**3**

FIGURE 3



1 inch = 2,000 feet

**Legend**

- + OUTFALLS
- STREAMS
- MS-4
- CityName
- Phenix City

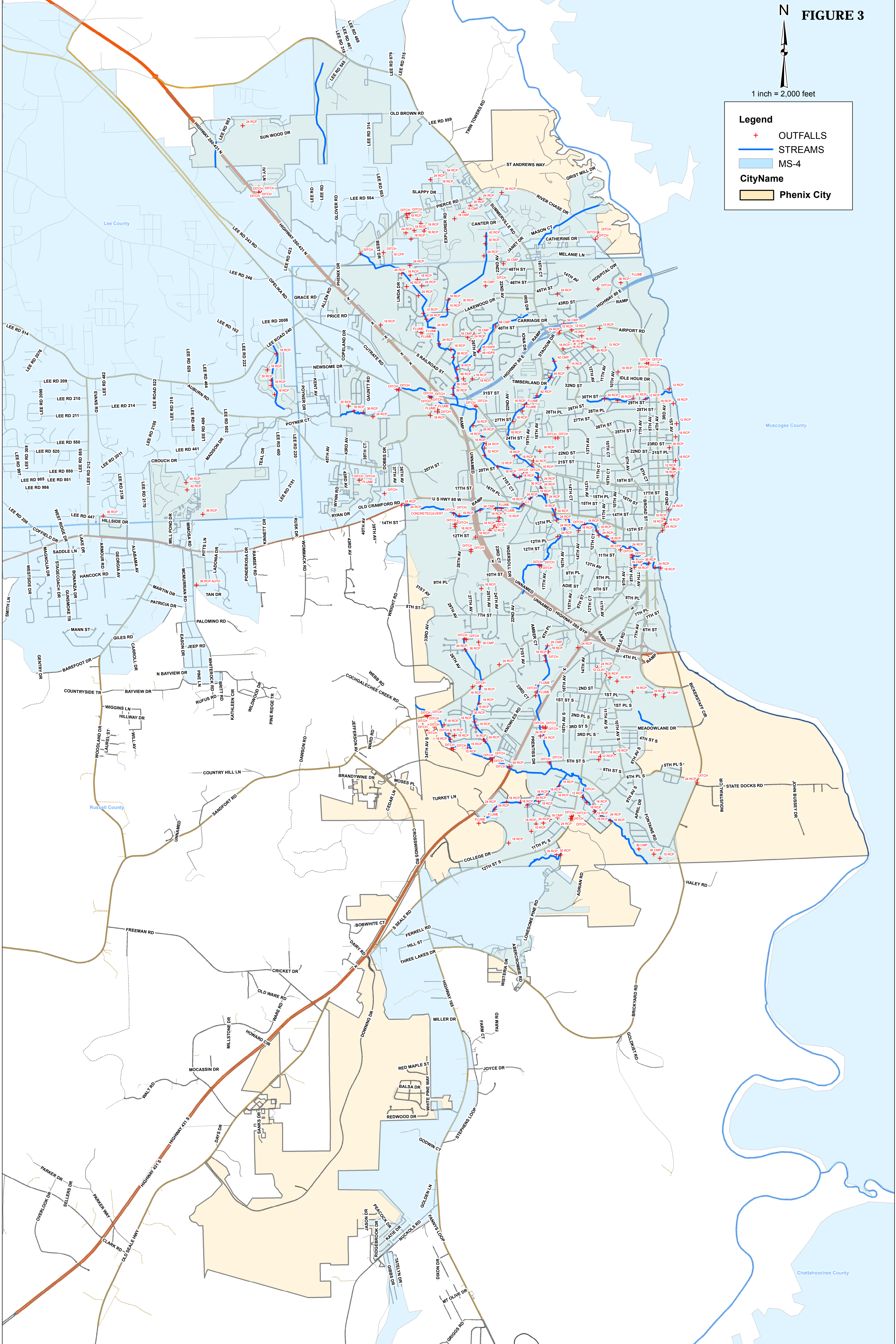


FIGURE 4

N



1 inch = 2,000 feet

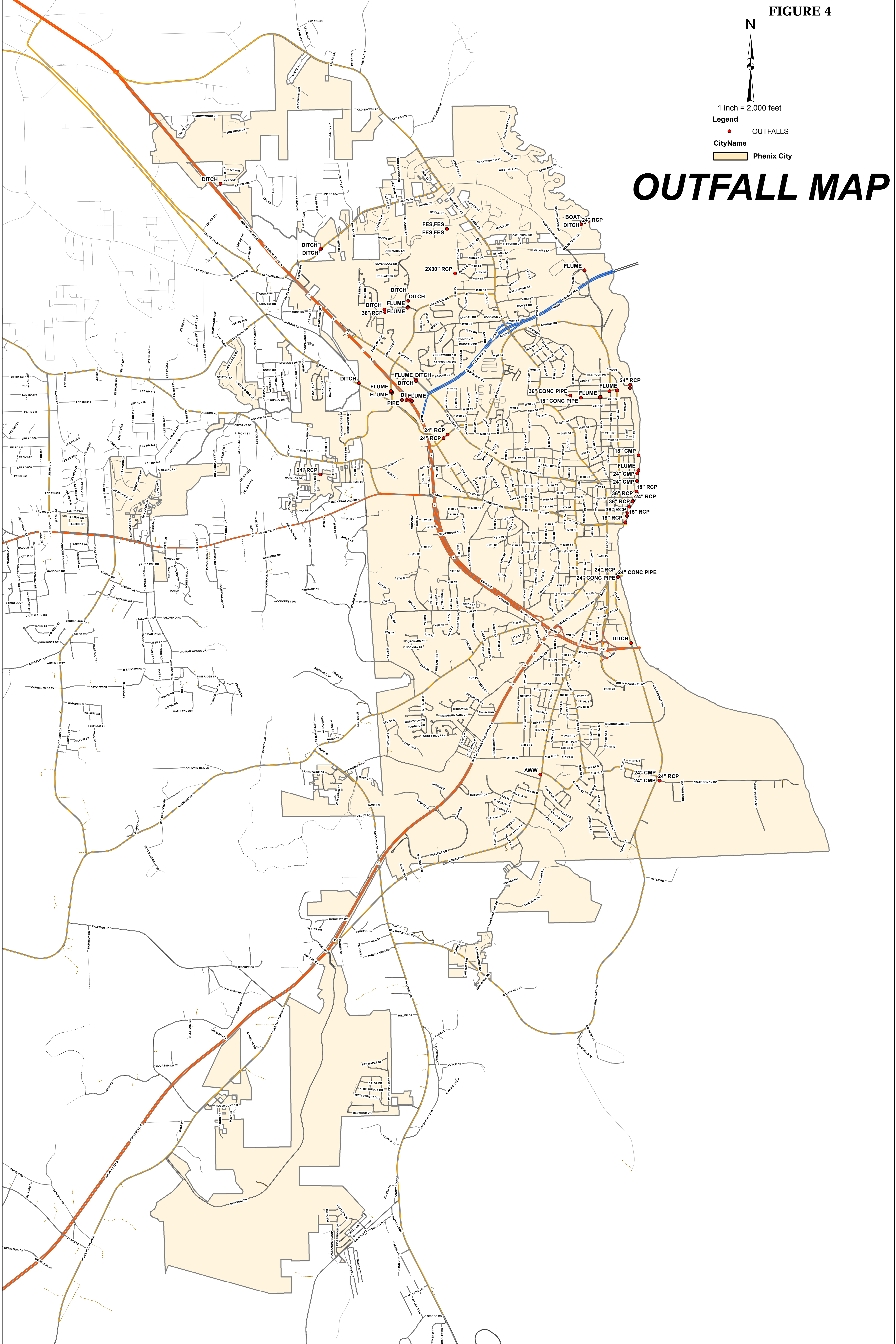
Legend

• OUTFALLS

CityName

Phenix City

# OUTFALL MAP



**Appendix II – Forms**

## ILLICIT DISCHARGE POTENTIAL WORKSHEET

SUBWATERSHED: \_\_\_\_\_

DATE OF EVALUATION: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

			IDP RANKING VALUES				
	CRITERION	RESULT	1	2	3	4	IDP SCORE
1	AVERAGE AGE OF DEVELOPMENT		< 10 years	25-50 years	> 50 years		
2	# OF POTENTIAL GENERATING SITES		< 3 sites	3-10 sites	> 10 sites		
3	SEPTIC FIELD DENSITY (# septic fields / subwatershed area)		< 10 fields / mi <sup>2</sup>	20-100 fields / mi <sup>2</sup>	> 100 fields / mi <sup>2</sup>		
4	# OF ILLICIT DISCHARGE REPORTS IN PAST 2 YEARS		< 5 reports	5 - 25 reports	> 25 reports		
5	ORI RESULTS		Unlikely	Potential	Suspect	Obvious	
						TOTAL IDP	

**TOTAL IDP > 10 = PRIORITY AREA**

# OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

## Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.):	Last 24 hours:	Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

## Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____ _____	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	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	<b>(applicable when collecting samples)</b>			
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

## Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Seconds	Stop watch
<input type="checkbox"/> Flow #2	Flow depth		Inches	Tape measure
	Flow width	____', ____"	Ft, In	Tape measure
	Measured length	____', ____"	Ft, In	Tape measure
	Time of travel		Seconds	Stop watch
Temperature		°F	Thermometer	
pH		pH Standard Units	Test strip / probe	
Ammonia		mg/L	Test strip	



## OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET (CONTINUED)

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow?  Yes  No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <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 in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
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/slight; Origin not obvious	<input type="checkbox"/> 2 – Some; Indications of origin (e.g., possible suds or oil sheen)	<input type="checkbox"/> 3 – Some; Origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present?  Yes  No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oil <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:	

### Section 6: Overall Outfall Characterization

<input type="checkbox"/> Unlikely <input type="checkbox"/> Potential (presence of two or more indicators) <input type="checkbox"/> Suspect (one or more indicators with a severity of 3) <input type="checkbox"/> Obvious
---

### Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, what time was the sample collected?
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool	
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

### Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

## **Appendix III – Tables**

<b>Outfall Number</b>	<b>Lat / Long</b>	<b>Description</b>	<b>Stream</b>
Outfall 1	Lat: 32.520469 Long: 85.066078	DITCH	HOLLAND CREEK
Outfall 2	Lat: 32.510986 Long: 85.049103	DITCH	HOLLAND CREEK
Outfall 3	Lat: 32.510853 Long: 85.049214	DITCH	HOLLAND CREEK
Outfall 4	Lat: 32.501694 Long: 85.038222	36" RCP	HOLLAND CREEK
Outfall 5	Lat: 32.501858 Long: 85.038172	18" RCP	HOLLAND CREEK
Outfall 6	Lat: 32.502128 Long: 85.038389	DITCH	HOLLAND CREEK
Outfall 7	Lat: 32.490183 Long: 84.998906	24" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 8	Lat: 32.490228 Long: 84.998919	FLUME	UNNAMED TRIBUTARY
Outfall 9	Lat: 32.490203 Long: 84.998822	FLUME	UNNAMED TRIBUTARY
Outfall 10	Lat: 32.490983 Long: 84.996614	24" RCP	CHATAHOOCHEE RIVER
Outfall 11	Lat: 32.490522 Long: 84.996544	18" CONCRETE PIPE	CHATAHOOCHEE RIVER
Outfall 12	Lat: 32.490036 Long: 85.000164	18" CMP	UNNAMED TRIBUTARY
Outfall 13	Lat: 32.489203 Long: 85.001819	18" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 14	Lat: 32.489189 Long: 85.001806	FLUME	UNNAMED TRIBUTARY
Outfall 15	Lat: 32.489142 Long: 85.001819	18" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 16	Lat: 32.489181 Long: 85.001625	18" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 17	Lat: 32.489244 Long: 85.001658	18" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 18	Lat: 32.489158 Long: 85.005019	18" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 19	Lat: 32.489472 Long: 85.006853	36" CONCRETE PIPE	UNNAMED TRIBUTARY
Outfall 20	Lat: 32.490567 Long: 85.026297	(2) 30" RCP	HOLLAND CREEK
Outfall 21	Lat: 32.513681 Long: 85.027664	42" CMP	HOLLAND CREEK
Outfall 22	Lat: 32.513683 Long: 85.027600	DITCH	HOLLAND CREEK
Outfall 23	Lat: 32.503319 Long: 85.034314	DITCH	UNNAMED TRIBUTARY
Outfall 24	Lat: 32.504250 Long: 85.034106	DITCH	UNNAMED TRIBUTARY
Outfall 25	Lat: 32.502442 Long: 85.034425	FLUME	UNNAMED TRIBUTARY
Outfall 26	Lat: 32.502306 Long: 85.034417	FLUME	UNNAMED TRIBUTARY
Outfall 27	Lat: 32.478350 Long: 85.049522	24" RCP	MILL CREEK
Outfall 28	Lat: 32.491567 Long: 85.042697	DITCH	MILL CREEK
Outfall 29	Lat: 32.490244 Long: 85.037231	DITCH	MILL CREEK
Outfall 30	Lat: 32.490050 Long: 85.037203	FLUME	MILL CREEK
Outfall 31	Lat: 32.490150 Long: 85.037392	FLUME	MILL CREEK
Outfall 32	Lat: 32.490358 Long: 85.037378	FLUME	MILL CREEK
Outfall 33	Lat: 32.491778 Long: 85.033092	DITCH	HOLLAND CREEK

Outfall 34	Lat: 32.491928 Long: 85.033239	FLUME	HOLLAND CREEK
Outfall 35	Lat: 32.491981 Long: 85.033083	DITCH	HOLLAND CREEK
Outfall 36	Lat: 32.491917 Long: 85.033017	DITCH	HOLLAND CREEK
Outfall 37	Lat: 32.483475 Long: 85.028461	24" RCP	HOLLAND CREEK
Outfall 38	Lat: 32.483978 Long: 85.027750	24" RCP	HOLLAND CREEK
Outfall 39	Lat: 32.514572 Long: 85.003631	24" RCP	CHATAHOOCHEE RIVER
Outfall 40	Lat: 32.514514 Long: 85.004131	24" RCP	CHATAHOOCHEE RIVER
Outfall 41	Lat: 32.514181 Long: 85.004756	24" RCP	CHATAHOOCHEE RIVER
Outfall 42	Lat: 32.514525 Long: 85.004619	DITCH	CHATAHOOCHEE RIVER
Outfall 43	Lat: 32.514597 Long: 85.004547	BOAT RAMP	CHATAHOOCHEE RIVER
Outfall 44	Lat: 32.434822 Long: 85.012436	AWW TEST SITE / DITCH	COCHGALECHEE CREEK
Outfall 45	Lat: 32.488878 Long: 85.033781	FLUME	MILL CREEK
Outfall 46	Lat: 32.489225 Long: 85.034119	FLUME	MILL CREEK
Outfall 47	Lat: 32.489100 Long: 85.034406	CURB INLET	MILL CREEK
Outfall 48	Lat: 32.489000 Long: 85.034725	FLUME	MILL CREEK
Outfall 49	Lat: 32.489031 Long: 85.035522	24" CONCRETE PIPE	MILL CREEK
Outfall 50	Lat: 32.507547 Long: 85.004239	FLUME	CHATAHOOCHEE RIVER
Outfall 51	Lat: 32.463653 Long: 84.998917	24" RCP	CHATAHOOCHEE RIVER
Outfall 52	Lat: 32.463278 Long: 84.998956	24" CONCRETE PIPE	CHATAHOOCHEE RIVER
Outfall 53	Lat: 32.463228 Long: 84.998956	24" CONCRETE PIPE	CHATAHOOCHEE RIVER
Outfall 54	Lat: 32.453925 Long: 84.996019	DITCH	CHATAHOOCHEE RIVER
Outfall 55	Lat: 32.433819 Long: 84.992158	30" CONCRETE PIPE	COCHGALECHEE CREEK
Outfall 56	Lat: 32.433825 Long: 84.992125	24" RCP	COCHGALECHEE CREEK
Outfall 57	Lat: 32.434311 Long: 84.992367	24" CMP	COCHGALECHEE CREEK
Outfall 58	Lat: 32.434333 Long: 84.992350	24" CMP	COCHGALECHEE CREEK
Outfall 59	Lat: 32.471136 Long: 84.997647	18" RCP	CHATAHOOCHEE RIVER
Outfall 60	Lat: 32.472006 Long: 84.997347	15" RCP	CHATAHOOCHEE RIVER
Outfall 61	Lat: 32.472525 Long: 84.997186	12" RCP	CHATAHOOCHEE RIVER
Outfall 62	Lat: 32.473381 Long: 84.996956	36" RCP	CHATAHOOCHEE RIVER
Outfall 63	Lat: 32.474194 Long: 84.996297	24" RCP	CHATAHOOCHEE RIVER
Outfall 64	Lat: 32.474103 Long: 84.996383	36" RCP	CHATAHOOCHEE RIVER
Outfall 65	Lat: 32.474642 Long: 84.995864	36" RCP	CHATAHOOCHEE RIVER
Outfall 66	Lat: 32.475569 Long: 84.995711	18" RCP	CHATAHOOCHEE RIVER
Outfall 67	Lat: 32.477058 Long: 84.995553	24" CMP	CHATAHOOCHEE RIVER

Outfall 68	Lat: 32.478169 Long: 84.995558	24" CMP	CHATAHOOCHEE RIVER
Outfall 69	Lat: 32.478622 Long: 84.995336	Flume	CHATAHOOCHEE RIVER
Outfall 70	Lat: 32.480781 Long: 84.995283	18" CMP	CHATAHOOCHEE RIVER

## **Appendix IV – Proposed IDDE Ordinance**

**ORDINANCE NO. 2016-**

**AN ORDINANCE AMENDING THE *CODE OF ORDINANCES, OF THE CITY OF PHENIX CITY, ALABAMA*, ADDING CHAPTER 10 ½ STORMWATER MANAGEMENT, TO REGULATE DISCHARGES AND CONNECTIONS TO STORM SEWER SYSTEM WITHIN THE CORPORATE LIMITS OF THE CITY OF PHENIX CITY**

**WHEREAS**, the City of Phenix City, Alabama, is required under Federal and State regulations to implement a Stormwater Management Plan (SWMP) to address Pollutants which may be discharged from the public Municipal Separate Storm Sewer System (MS4); and

**WHEREAS**, the purpose of this Ordinance is for the health, safety, and general welfare of the citizens of the City of Phenix City through the regulation of Non-Stormwater Discharges to the Storm Drainage System to the maximum extent practicable as required by federal and state law; and

**WHEREAS**, this Ordinance establishes methods for controlling the introduction of Pollutants into the MS4 in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process; and

**WHEREAS**, the objectives of this Ordinance are:

- 1) To regulate the contribution of Pollutants to the MS4 by stormwater discharges by any user;
- 2) To prohibit Illicit Connections and Discharges to the MS4; and
- 3) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this Ordinance;

**NOW, THEREFORE, BE IT ORDAINED** by the City Council of the City of Phenix City, Alabama, that the *Code of Ordinances, City of Phenix City, Alabama*, is hereby amended by the creation and inclusion of the following chapter:

**CHAPTER 10 ½ - STORMWATER MANAGEMENT**

**ARTICLE I. GENERAL**

**Sec. 10 1/2-1. Purpose.**

**It is the purpose of this chapter to:**

**(a)** Protect, maintain and enhance the health, safety, and general welfare of the citizens and environment of the City of Phenix City, Alabama through the regulation of Non-Stormwater Discharges to the Storm Drainage System to the maximum extent practicable as required by federal and state law; and

**(b)** Implement a Stormwater Management Plan to address pollutants which may be discharged from the public Municipal Separate Storm Sewer System (MS4); and

**(c)** To regulate the contribution of Pollutants to the MS4 by stormwater discharges by any user;

(d) To prohibit Illicit Connections and Discharges to the MS4; and

(e) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this Ordinance.

**ARTICLE II. MUNICIPAL SEPARATE STORM SEWER SYSTEM**

**Sec. 10 ½ - 1. Definitions.**

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section:

*Alabama Department of Environmental Management (ADEM)* means the state agency which administers all major federal environmental laws, including the Clean Air, Clean Water and Safe Drinking Water Acts and federal solid and hazardous waste laws.

*Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (Handbook)* means the published document which provides guidance for preventing or minimizing the related problems of erosion, sediment, and stormwater on construction sites and eroding urban areas. The *Handbook* provides a basis for developing sound plans and implementing appropriate measures, commonly referred to as Best Management Practices (BMPs).

*Authorized Enforcement Agent (Agent)* means an agent, whether corporate or individual, which has been designated by the City Manager as being responsible for enforcement of this article.

*Best Management Practices (BMPs)* means activities, prohibitions of practices, maintenance procedures, and other management practices implemented to prevent or reduce the discharge of pollutants to waters of the State. BMPs also include treatment systems, operating procedures, and practices to control facility runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.

*City* means the City of Phenix City, Alabama, a municipal corporation.

*City Engineer* means the director of the City of Phenix City Engineering Department or his/her designee.

*Clean Water Act* means the Federal Water Pollution Control Act (33 U.S.C. § 1251, *et seq.*), and any subsequent amendments thereto.

*Construction Activity* means construction projects resulting in land disturbance of one (1) acre or more. Such activities include, but are not limited to, clearing and grubbing, grading, excavating, and demolition.

*Hazardous Waste* means a solid waste, or combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

- a. Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed.



*Illicit Connection* means any man-made conveyance connecting a non-stormwater discharge directly to a municipal separate storm sewer system.

*Illicit Discharge* means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to an NPDES permit.

*Industrial Activity* means any activity subject to NPDES Industrial Permits as defined in 40 CFR, § 122.26 (b)(14).

*Municipal Separate Storm Sewer System (MS4)* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined in ADEM Administrative Code 355-6-6.02(pp). See 40 CFR Part 122.26(b)(8).

*National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit* means a permit issued by the EPA (or by a state under authority delegated pursuant to 33 USC Section 1342(b)) that authorizes the discharge of Pollutants to Waters of the United States and Waters of the State, whether the permit is applicable to an individual, group, or general area-wide basis.

*Non-Stormwater Discharge* means any discharge to the City's MS4 that is not composed entirely of stormwater.

*Person* means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner of the premises or as the owner's agent.

*Pollutant* means the pollutants specified in *Ala. Code* § 22-22-1(b)(3) (1975) and any other effluent characteristics specified in a permit, including anything which causes or contributes to pollution. A pollutant includes but is not limited to dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water. Pollutant does not mean (a) sewage from vessels; or (b) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the state, and if the commission determines that such injection or disposal will not result in the degradation of ground or surface water resources.

*Premises* means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including facilities, adjacent sidewalks, and parking strips located thereon and includes all land uses.

*Storm Drainage System* means publicly and/or privately owned facilities by which stormwater is collected and/or conveyed, including, but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and hand-made or altered drainage channels, reservoirs, and other drainage structures.

*Stormwater* means any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation. Stormwater is that portion of the rainfall and resulting surface flow that is in excess of which can be absorbed through the infiltration capacity of the surface of the basin.

*Stormwater Management Program (SWMP)* means a program developed by the City that covers the duration of the NPDES Permit and that addresses the BMPs, control techniques and systems, design and engineering methods, public participation and education, monitoring, and other appropriate provisions designed to reduce the discharge of Pollutants from the MS4 to the maximum extent practicable. The SWMP includes controls necessary to reduce the discharge of Pollutants from its MS4 consistent with § 402(p)(3)(B) of the Clean Water Act and 40 CFR Part 122.26.

*United States Environmental Protection Agency (EPA)* means the agency of the United States Federal Government whose mission is to protect human and environmental health.

*Wastewater* means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

*Waters of the State* means the waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce as defined in *Ala. Code* § 22-22-1(b)(2) (1975).

*Waters of the United States* means surface watercourses and water bodies as defined in 40 CFR.

**Sec. 10 ½ - 2. Applicability.**

This article shall apply to all water entering the municipal separate storm sewer system generated on any developed and undeveloped lands, unless explicitly exempted by the Agent.

**Sec. 10 ½ - 3. Responsibility for administration.**

The City shall administer, implement, and enforce the provisions of this article through the Agent.

**Sec. 10 ½ -4. Severability.**

The provisions of the ordinance enacting this article are hereby declared to be severable. If any provision, clause, sentence, or paragraph of said ordinance, or the application thereof to any person, establishment, or circumstances, shall be held invalid, such invalidity shall not affect the other provisions or application of this article.

**Sec. 10 ½ -5. Ultimate responsibility.**

The standards set forth in this article and promulgated thereby are minimum standards; therefore this article does not intend or imply that compliance by any person will ensure that there will be no contamination, pollution, or unauthorized discharge of Pollutants.

**Sec. 10 ½ -6. Discharge prohibitions.**

(a) No person shall discharge or cause to be discharged into the MS4 or watercourses any materials, including, but not limited to, Pollutants or waters containing any Pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater. The commencement, conduct, or continuance of any Illicit Discharge to the storm drain system is prohibited, with the exception of the following discharges:

- (1) Water line flushing or other potable water sources; landscape irrigation or lawn watering (not consisting of treated or untreated wastewater unless authorized by the Agent); diverted stream flows; rising ground water; uncontaminated ground water infiltration to storm drains; uncontaminated pumped ground water; foundation or footing drains (not including active groundwater dewatering systems); crawl space pumps; air conditioning condensation; springs; individual residential car washing, to include charitable car washes; natural riparian habitat or wet-land flows; swimming pools (if dechlorinated, typically less than one (1) PPM chlorine); saltwater swimming pool discharges; discharge or flows from firefighting activities (including fire hydrant flushing); residual street wash water; and any other water source not containing Pollutants.
- (2) Discharges specified in writing by the Agent as being necessary to protect public health and safety.
- (3) Dye testing, provided verbal notification has been given to the Agent prior to the time of the test.
- (4) Any Non-Stormwater Discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the EPA, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.
- (5) Any Non-Stormwater Discharge excluded by the Clean Water Act.

(b) The construction, use, maintenance or continued existence of Illicit Connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, Illicit Connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation of this article if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

**Sec. 10 ½-7. Suspension of MS4 access.**

(a) In the event of an emergency, the City may suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment; the health or welfare of persons; the MS4, Waters of the State or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Agent may take such steps as deemed necessary to prevent or minimize damage to the MS4, Waters of the State or Waters of the United States, or to minimize danger to persons.

(b) Any person discharging to the MS4 in violation of this article may have their MS4 access terminated if such termination would abate or reduce the Illicit Discharge. The Agent will notify a violator of the proposed termination of its MS4 access. The violator may petition the Agent for reconsideration. If the violator and the Agent do not agree on such matters the violator may petition ADEM for final ruling.

(c) A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior written approval of the Agent.

**Sec. 10 1/2-8. Industrial or construction activity discharges.**

Any person subject to an NPDES Industrial Permit or an NPDES Construction General Permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Agent prior to the allowing of discharges to the MS4.

**Sec. 10 1/2-9. Monitoring of discharges.**

(a) This section applies to all facilities that have stormwater discharges associated with Industrial Activity, including Construction Activity.

(b) The Agent shall be permitted to enter and inspect facilities subject to regulation under this article as often as may be necessary to determine compliance. If a facility has security measures in force which require proper identification and clearance before entry into its premises, the facility operator shall make the necessary arrangements to allow access to the Agent.

(c) Facility operators shall allow the Agent ready access to all parts of the premises for the purposes of inspection, sampling, examination, and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by State and Federal law.

(d) The Agent shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the Agent to conduct monitoring and/or sampling of the facility's stormwater discharge.

(e) The Agent has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

(f) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Agent and shall not be replaced. The costs of clearing such access shall be borne by the operator.

(g) Unreasonable delays in allowing the Agent access to a permitted facility is a violation of a stormwater discharge permit and of this article. A person who is the operator of a facility with an NPDES permit to discharge stormwater associated with Industrial Activity commits an offense if the person denies the Agent reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this article.

(h) If the Agent has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this article, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this article or any order issued, or to protect the overall public health, safety, and welfare of the community, then the Agent may seek issuance of a search warrant from any court of competent jurisdiction in Russell County or Lee County, Alabama.

**Sec. 10 1/2-10. Requirement to prevent, control, and reduce stormwater pollutants by use of BMPs.**

BMPs for any activity, operation, or facility which may cause or contribute to pollution or contamination of stormwater, the storm drain system, Waters of the State, or Waters of the United States, shall meet the design criteria set forth in the most recent edition of the *Handbook* and defined in the City's SWMP, as necessary for compliance with requirements of the NPDES permit. The owner or operator of a commercial or industrial establishment shall provide, at its own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the MS4 through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an Illicit Discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs, designed by a certified professional licensed in the State of Alabama, such as Professional Engineers, Landscape Architects, or Certified Erosion Control Specialist and approved by the Agent, to prevent the further discharge of Pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with Industrial Activity, to the extent practicable, shall be deemed compliant with the provisions of this section.

**Sec. 10 1/2-11. Watercourse protection.**

Every person owning property through which a watercourse passes shall keep that part of the watercourse within said property free of trash, debris, excessive vegetation, and other obstacles originating from that property which would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner shall maintain existing privately-owned structures within or adjacent to a watercourse so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

**Sec. 10 1/2-12. Notification of spills.**

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting or may result in Illicit Discharges or Pollutants discharging into the MS4, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of Hazardous Waste, said person shall immediately notify emergency response agencies of the occurrence by means of emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the Agent in person or by phone or email no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Agent within three (3) business days of the notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for a minimum of three (3) years.

**Sec. 10 1/2-13. Notice of violation (NOV).**

Whenever the Agent finds that a person has violated a prohibition or failed to meet a requirement of this article, the Agent may order compliance by written notice of violation to the responsible person. Such notice may include, but not be limited to:

- (1) The performance of monitoring, analyses, and reporting;
- (2) The elimination of Illicit Connections or Illicit Discharges;
- (3) That violating discharges, practices, or operations shall cease and desist;

- (4) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property; per § **Sec. 10 1/2-10**.
- (5) Payment of a fine to cover administrative and remediation costs; and
- (6) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline for completion of the remediation or restoration, as determined by the Agent. Said notice shall further advise that, should the violator fail to either (i) remediate or restore within the established deadline or (ii) petition for reconsideration in accordance with § 10 ½ -14, the work will be done by the City or its designee at the expense of the violator.

**Sec. 10 1/2-14. Reconsideration after notice of violation.**

- (a) Any person receiving a Notice of Violation may petition the Agent for reconsideration by submitting to the City Engineer a written request for the same within fifteen (15) days of the date of the Notice of Violation. A hearing for reconsideration shall take place within fifteen (15) days of the date of the City Engineer's receipt of the written request.
- (b) Upon conclusion of the hearing, the Agent will advise the violator of his/her approval or disapproval of the violator's submittal for reconsideration.
  - (1) If the Agent approves the resubmittal, he/she shall set forth in writing the terms and conditions of his/her approval, including deadlines for compliance. If the violator fails to remediate or restore according to the terms of the approved resubmittal, the work will be done by the City or its designee at the expense of the violator.
  - (2) If the Agent does not approve the resubmittal, then, within thirty (30) days of the Agent's decision, the violator must either correct the violations or appeal the Agent's decision to ADEM for a final determination.
    - a. Should the violator choose to correct the violations, he must timely remediate or restore as directed in the original Notice of Violation. If he fails to do so, the work will be done by the City or its designee at the expense of the violator.
    - b. Should the violator choose to appeal, all directives of the Agent will be stayed until a decision is rendered by ADEM.
      - 1. If the appeal is successful, the violator shall then be responsible for compliance with any orders issued by ADEM and no further action will be taken by the Agent on that particular Notice of Violation.
    - c. If the appeal is unsuccessful, the violator must correct all violations pursuant to the requirements set forth in the original Notice of Violation and do so within thirty (30) days of the issuance of ADEM's ruling. If he/she fails to do so, the work will be done by the City or its designee at the expense of the violator.

**Sec. 10 1/2-15. Enforcement.**

If any violation is not corrected in accordance with the applicable requirements and time standards as set forth by § 10 1/2-14, then the Agent is hereby authorized to enter upon the subject private property and to take any and all measures necessary to abate the violation. It shall be unlawful

for any person, owner, agent or person in possession of any premises to refuse to allow the Agent to enter upon the premises for the purposes set forth above.

**Sec. 10 1/2-16. Cost of City's abatement of violation.**

(a) Should the City undertake abatement of a violation, the owner of the property will be notified of the documented costs, including any applicable administrative costs, within thirty (30) days of completion. Upon receipt of the notification of costs from the City, if the owner does not pay the amount due within thirty (30) days, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. The lien shall remain in place until paid in full.

**Sec. 10 1/2-17. Injunctive relief.**

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this article. If a person has violated or continues to violate the provisions of this article, the Agent may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

**Sec. 10 1/2-18. Violations deemed a public nuisance.**

In addition to the enforcement processes and penalties provided in this article, any condition caused or permitted to exist in violation of any of the provisions of this article is declared a threat to public health, safety, and welfare, and is hereby deemed a public nuisance which may be summarily abated or restored at the violator's expense. At the City's discretion, a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

**Sec. 10 1/2-19. Criminal prosecution.**

Any person who violates this article or provisions of a BMP plan issued under this article shall be reported to ADEM, for prosecution to the fullest extent of the law.

**Sec. 10 1/2-20. Remedies not exclusive.**

The remedies listed in this article are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Agent to seek cumulative remedies.

**Sec. 10 1/2-21. Repeal of conflicting provisions.**

All current provisions of the *Code* and any prior ordinances or parts of ordinances which are in conflict with this article are hereby repealed.

**Sec. 10 1/2-22. Adoption of *Handbook*.**

The *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*, as most recently revised, which is on file in the City of Phenix City Engineering Department, is hereby adopted for use by the City of Phenix City, owners, developers, utilities, and all other interested parties to regulate and govern the prevention and minimization of the related problems of erosion, sediment, and stormwater on construction sites and

eroding urban areas. Every regulation, provision, condition, and term contained therein is made a part of this *Code* as if fully set out herein.”

**Section 2.** That there are hereby reserved in the *Code* Sections 10 ½ - 23 through 10 ½-40 and that the codifier is hereby instructed to reflect the same.

**Section 3.** That this Ordinance shall become effective immediately upon proper publication as required by law.

**PASSED, ADOPTED, AND APPROVED** this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
MAYOR

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
MEMBERS OF THE CITY COUNCIL OF THE  
CITY OF PHENIX CITY, ALABAMA.

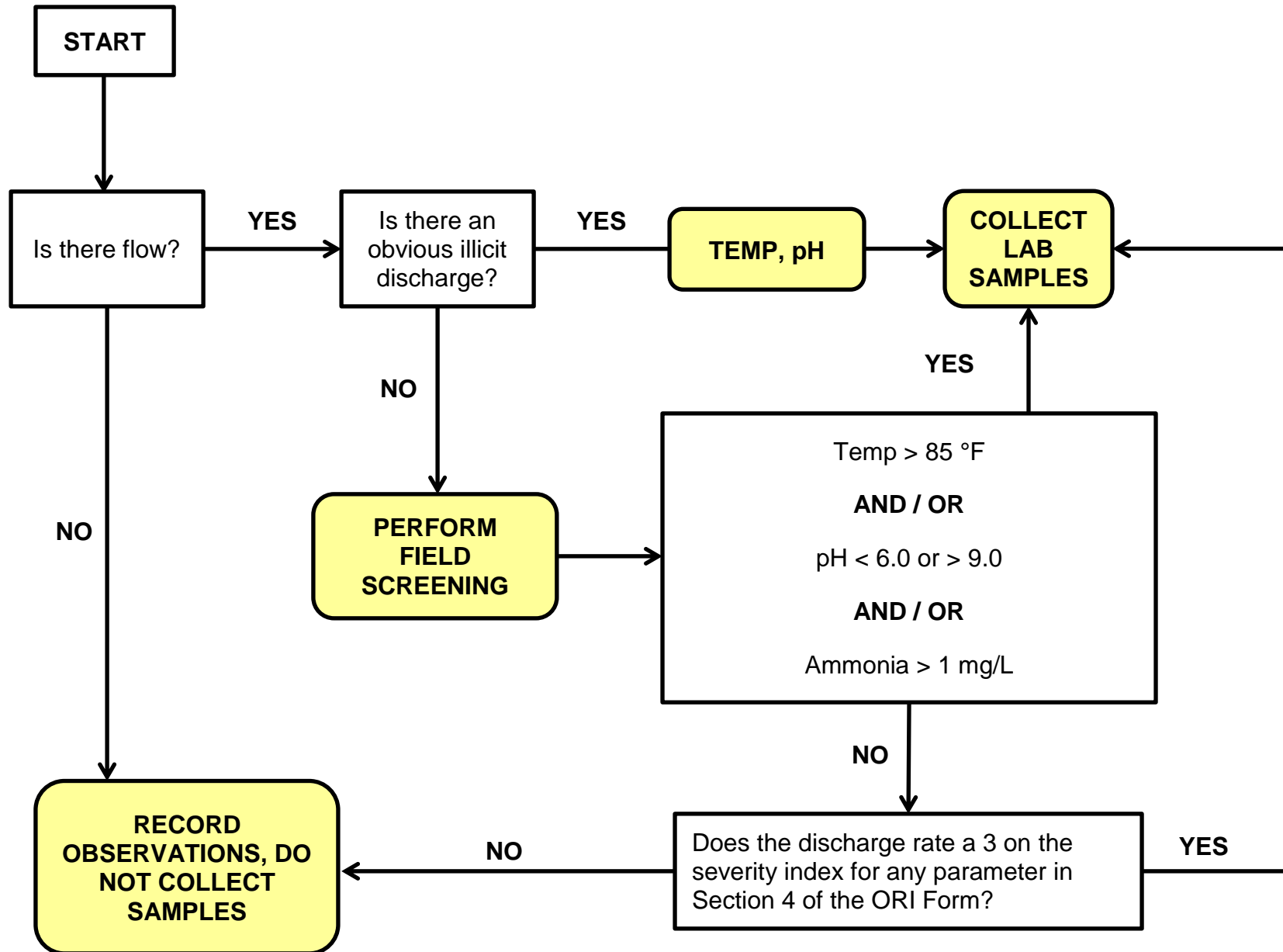
ATTEST:

\_\_\_\_\_  
CITY CLERK



## **Appendix V – Flow Charts**

### FLOW CHART: WHEN TO SAMPLE



**FLOW CHART: Evaluating Analytical Data to Determine Discharge Type**

