



# **ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**

Gadsden Alabama Urbanized Area  
Phase II Small MS4  
NPDES General Permit ALR040009

March 2014

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S&ME Project No. 4482-14-012

## TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 Urbanized Area Designation.....	1
1.2 Gadsden-Etowah MS4 Area.....	1
1.3 Hydrologic Units in the Urbanized Area.....	2
1.4 Water Quality Concerns.....	2
1.5 Storm Sewer System.....	3
1.6 Municipal Separate Storm Sewer Outfalls.....	4
1.7 Major and Minor Outfalls.....	4
1.8 Illicit Discharge Detection and Elimination Program Requirements.....	5
<b>2. NON-STORM WATER DISCHARGES .....</b>	<b>6</b>
2.1 Rationale Statement.....	6
2.2 Authorized Non-Storm Water Discharges.....	6
2.3 Illicit Discharges.....	7
<b>3. IDENTIFYING PRIORITY AREAS .....</b>	<b>7</b>
3.1 Rationale Statement.....	7
3.2 Drainage Basins.....	7
3.3 Zoning / Land Use.....	8
3.4 Number of Past Reports or Complaints.....	8
3.5 Potential Generating Sites.....	9
3.6 Age of Development.....	9
3.7 IDP Assessment.....	10
<b>4. FIELD ASSESSMENT ACTIVITIES.....</b>	<b>11</b>
4.1 Rational Statement.....	11
4.2 Outfall Identification.....	11
4.3 Outfall Verification.....	12
4.4 Dry Weather Monitoring.....	13
<b>5. STORM WATER MAPPING.....</b>	<b>13</b>
5.1 Rationale Statement.....	13
5.2 Existing Features.....	13
5.3 Future Additions.....	14
5.4 Outfalls.....	14
<b>6. IDDE ORDINANCES.....</b>	<b>14</b>
6.1 Rationale Statement.....	14
6.2 Prohibit Illicit Discharges and Connections.....	15
6.3 Enforcement Responsibility.....	15
6.4 Enforcement Actions.....	16
6.5 Evaluation.....	17
<b>7. OUTFALL RECONNAISSANCE INVENTORY.....</b>	<b>17</b>
7.1 Rationale Statement.....	17
7.2 Prioritization Schedule.....	17
7.3 Responsibility.....	18
7.4 Inspection Conditions.....	18
7.5 Equipment.....	18
7.6 Safety Considerations.....	19
7.7 Inspection Procedure.....	20
7.8 Visual Inspection.....	21
7.9 Field Screening.....	21
7.10 Discharge Sampling.....	22
7.11 Inspection Reporting.....	22
7.12 Outfall Ranking.....	23

<b>8. IDDE INVESTIGATION</b> .....	<b>23</b>
8.1 Storm Drain Network Investigations .....	24
8.2 Drainage Area Investigations .....	24
8.3 On-site Investigations .....	24
8.4 Septic System Investigations .....	24
<b>9. ILLICIT DISCHARGE ELIMINATION</b> .....	<b>25</b>
9.1 Rationale Statement .....	25
9.2 Voluntary Compliance .....	25
9.3 Enforcement Actions .....	25
9.4 Corrective Action Record Keeping .....	26
<b>10. PUBLIC EDUCATION</b> .....	<b>26</b>
10.1 Rationale Statement .....	26
10.2 Target Audiences .....	27
10.3 Municipal Employees .....	27
10.4 General Public .....	27
10.5 Engineers, Developers, and Contractors .....	28
10.6 Local Businesses .....	28
<b>11. RESPONSIBLE PARTIES</b> .....	<b>28</b>
11.1 Coordination Between Entities .....	28
<b>12. PROGRAM EVALUATION</b> .....	<b>29</b>
12.1 Rationale Statement .....	29
12.2 IDDE Tracking System .....	29
12.3 Priority Areas.....	29
12.4 Field Screening .....	30
<b>13. AGENCY CERTIFICATIONS</b> .....	<b>31</b>
13.1 City of Gadsden .....	31
13.2 City of Glencoe.....	31
13.3 City of Hokes Bluff .....	32
13.4 Rainbow City .....	32
13.5 City of Southside .....	33
13.6 Etowah County .....	33

## **APPENDICES**

### **APPENDIX A – FIGURES**

Figure 1 – Gadsden, Alabama Urbanized Area

### **APPENDIX B – IDDE ORDINANCES**

City of Attalla , Ordinance No. 802(08), dated February 19, 2008  
City of Gadsden, Ordinance No. O-77-05, dated May 17, 2005  
City of Glencoe, Ordinance No. 07-06, dated November 8, 2007  
City of Hokes Bluff, Ordinance No. O-2-12-002, dated December 11, 2012  
Rainbow City, Ordinance No. 490, dated December 10, 2012  
City of Southside, Ordinance No. O-10-2012, dated December 10, 2012

### **APPENDIX C – FORMS**

Drainage Basin Illicit Discharge Potential Worksheet  
Outfall Reconnaissance Inventory Field Sheet

### **APPENDIX D – FLOW CHARTS**

When to Sample: ORI Observations and Sampling  
Evaluating Analytical Data to Determine Discharge Type

# 1. INTRODUCTION

S&ME, Inc. has prepared this Illicit Discharge Detection and Elimination Program for the *Gadsden, Alabama Urbanized Area* Phase II Small Municipal Separate Storm Sewer System in accordance with S&ME Proposal No. 13-199, dated September 20, 2013 and authorized by Mr. Sherman Guyton, Mayor of the City of Gadsden, on January 3, 2014.

The Illicit Discharge Detection and Elimination Program is required by Part III.B.3 of National Pollutant Discharge Elimination System (NPDES) General Permit ALR040009 for discharges from regulated small municipal separate storm sewer systems (MS4s), issued to the *Gadsden, Alabama Urbanized Area* by the Alabama Department of Environmental Management (ADEM). The permit is jointly held by the following entities: City of Attalla, City of Gadsden, City of Glencoe, City of Hokes Bluff, Rainbow City, City of Southside, and portions of unincorporated Etowah County.

## 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 2000 census, the Bureau of the Census has designated portions of the entities listed in Section 1 as the *Gadsden, Alabama Urbanized Area*. The urbanized area incorporates approximately 75 square miles. A map outlining the approximate boundary of the *Gadsden, Alabama Urbanized Area* is included in **Appendix A** as Figure 1.

## 1.2 Gadsden-Etowah MS4 Area

The Gadsden-Etowah MS4 is defined as the portions of the entities’ systems within the urbanized area boundary.

**Table 1. Gadsden-Etowah MS4 Entities**

ENTITY NAME	TOTAL ENTITY AREA (SQ MILE)	ENTITY AREA WITHIN THE URBANIZED AREA BOUNDARY (SQ MILE)
City of Attalla	6.98	5.59
City of Gadsden	38.29	31.21
City of Glencoe	17.02	3.73
City of Hokes Bluff	12.11	4.08
City of Rainbow City	25.60	7.60
City of Southside	19.15	10.00
Etowah County	548.42	12.33

### 1.3 Hydrologic Units in the Urbanized Area

Neely Henry Lake (Coosa River) is the primary receiving water for the Gadsden-Etowah MS4. Other receiving waters include Horton Creek, Black Creek, and Big Wills Creek.

**Table 2. Hydrologic Hierarchy**

REGION	03	South Atlantic-Gulf
SUBREGION	0315	Alabama River Basin
BASIN	031501	Coosa-Tallapoosa: Above the confluence of and including the Coosa and Tallapoosa River Basins
SUBBASIN	03150106	Middle Coosa

**Table 3. Watersheds in the Urbanized Area**

WATERSHED	HUC 10 ID
Big Wills Creek	03150106-01
Coosa River-Black Creek	03150106-02
Coosa River-Big Canoe Creek	03150106-03

**Table 4. Subwatersheds in the Urbanized Area**

SUBWATERSHED	HUC 12 ID	TOTAL AREA (SQ MILES)	TOTAL AREA IN UA (SQ MILES)
Little Wills Creek	03150106-01-06	28.36	2.8
Black Creek	03150106-01-07	63.87	12.7
Horton Creek	03150106-01-08	26.44	15.03
Thorton Lakes - Dry Creek	03150106-02-02	15.27	0.09
Big Cove Creek	03150106-02-03	28.24	3.95
Turkey Town Creek	03150106-02-04	89.67	15.49
Lower Big Canoe Creek	03150106-03-06	52.01	2.16
<b>H. Neely Henry Lake - Coosa River</b>	<b>03150106-03-09</b>	<b>72.53</b>	<b>22.57</b>

### 1.4 Water Quality Concerns

Section 303(d) of the Clean Water Act (CWA), as amended by the Water Quality Act of 1987, and the USEPA 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. 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.

Neely Henry Lake is the primary receiving water for the Gadsden-Etowah MS4. In 1996, the ADEM identified five of the six reservoirs on the Coosa River within the State of Alabama’s borders as being impaired, including Neely Henry Lake. The following table summarizes the impaired segments of Neely Henry Lake.

**Table 5. Impaired Waterbody Segments in the Urbanized Area**

ASSESSMENT UNIT ID	WATERBODY NAME	USES	CAUSES	SOURCES
AL03150106-0309-101	Coosa River (Neely Henry Lake)	Swimming Fish & Wildlife	Nutrients pH Organic Enrichment (CBOD, NBOD)	Industrial Municipal Flow regulation/modification Upstream sources
AL03150106-0309-102	Coosa River (Neely Henry Lake)	Fish & Wildlife	Nutrients pH Organic Enrichment (CBOD, NBOD)	Industrial Municipal Flow regulation/modification Upstream sources
AL03150106-0104-101	Coosa River (Neely Henry Lake)	Fish & Wildlife	Nutrients pH Organic Enrichment (CBOD, NBOD) Priority Organics (PCBs)	Industrial Municipal Flow regulation/modification Upstream sources Contaminated sediments
AL03150106-0104-102	Coosa River (Neely Henry Lake)	Public Water Supply Fish & Wildlife	Nutrients pH Organic Enrichment (CBOD, NBOD) Priority Organics (PCBs)	Industrial Municipal Flow regulation/modification Upstream sources Contaminated sediments

In 2008, the US EPA approved TMDLs for Neely Henry Lake related to Nutrients (Total Phosphorous), pH, and Dissolved Oxygen. The Gadsden-Etowah MS4 is required to achieve a **30% reduction in Total Phosphorus loading.**

**1.5 Storm Sewer System**

A Municipal Separate Storm System 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.

## **1.6 Municipal Separate Storm Sewer Outfalls**

An MS4 outfall is defined as a point source where a municipal separate storm sewer discharges to waters of the State. This definition does not include open conveyances connecting two municipal separate storm sewers. Also excluded are pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

Waters of the State are defined by Chapter 335-6-10-.02(10) of the ADEM Administrative Code as all waters of any river, stream, watercourse, pond, lake, coastal, 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.

## **1.7 Major and Minor Outfalls**

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.

## 1.8 Illicit Discharge Detection and Elimination Program Requirements

Part III.B.3 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 for locating priority areas likely to have illicit discharges, including at a minimum, evaluating land uses associated with business/industrial activities present, areas where complaints have been registered in the past, and areas with storage of large quantities of materials that could result in spills.
- 2) 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.
- 3) Procedures to develop and update a storm water map showing the location of all outfalls, to include the latitude and longitude, and the names and location of all receiving waters.
- 4) Descriptions of the sources of information used for the storm water maps, and how the outfall locations will be verified with field surveys.
- 5) A description of the ordinance or other regulatory mechanism used to effectively prohibit illicit discharges into the MS4 and the reasons for selecting the mechanism.
- 6) The plan to ensure through appropriate enforcement procedures and actions that the illicit discharge ordinance (or other regulatory mechanism) is implemented.
- 7) The plan to detect and address illicit discharges to the system, including discharges from illegal dumping and spills. The plan must include, to the extent practicable, dry weather field screening for non-storm water flows and field tests of chemical parameters selected as indicators of discharge sources. The plan must also address on-site sewage disposal systems that flow into the storm drainage system. The description must address the following, at a minimum:
  - Procedures for locating priority areas which includes 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.
  - Procedures for program evaluation and assessment.

- 8) How public employees, businesses, and the general public will be informed of hazards associated with illegal discharges and improper disposal of waste and how this plan will coordinate with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs.
- 9) 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.
- 10) Procedures for evaluating the success of the IDDE program.

## **2. 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 sewers. 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 ALR040009 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**

An illicit discharge is any direct or indirect non-stormwater discharge to the stormwater drainage system, except as permitted or exempted by the Alabama General NPDES Permit or local ordinances.

Currently, all six municipalities in the Gadsden-Etowah MS4 have adopted an ordinance regulating illicit discharges.

## **3. 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.

Part B.3(a)(iv) of the Permit requires that the MS4 establish procedures for locating priority areas. The procedures must include, at a minimum, and evaluation of the following criteria:

1. Land uses associated with business or industrial activities present
2. Areas where complaints have been registered in the past
3. Areas with storage of large quantities of materials that could result in spills

### **3.2 Drainage Basins**

The urbanized area encompasses approximately 75 square miles and the individual entities range from 7 to 38 square miles in size. To assist with data collection and evaluation, drainage basins will be delineated for the waterbodies included within the Gadsden-Etowah MS4. The drainage basins are intended to divide each entity's jurisdictions into smaller, more manageable areas in order to target mapping and inspection activities.

The initial delineation of the drainage basins will be conducted using the USGS topographic map. As mapping of the storm sewer systems progress, the delineated drainage basins may require adjustment to reflect areas where natural topography has been modified and flow redirected.

Once the drainage basins are delineated, each entity will determine their Priority Areas by assigning each drainage basin an Illicit Discharge Potential (IDP) score. The IDP score will be determined by evaluating each drainage basin based on the following characteristics:

- Zoning / Land use
- Number of past reports or complaints
- Potential generating sites
- Age of development

For those drainage basins which extend beyond the boundaries of the Gadsden-Etowah MS4, or where a drainage basin is shared by more than one MS4 entity, the entire drainage basin will be evaluated to ensure that potential sources of illicit discharges are identified.

Entities may also choose to designate additional priority areas independent of the drainage basin IDP screening, if there are specific concerns or past problems in that area.

**3.3 Zoning / Land Use**

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 cities will evaluate the zoning districts present in each drainage basin. The County will evaluate the MS4 area within its jurisdiction based on land use. An IDP score will be assigned for each drainage basin based on the following criteria.

**Table 6. Zoning / Land Use**

ZONING / LAND USE TYPE IN DRAINAGE BASIN	IDP SCORE
RESIDENTIAL	1
BUSINESS	2
INDUSTRIAL	3

**3.4 Number of Past Reports or Complaints**

Any area with a history of past illicit discharge reports or complaints will be considered to have higher illicit discharge potential. The Gadsden-Etowah MS4 entities will evaluate the delineated drainage basins and assign an IDP score based on the following criteria.

**Table 7. Past Illicit Discharge Reports**

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

### 3.5 Potential Generating Sites

Areas with storage of large quantities of materials that could result in spills include permitted commercial sites, as well as those that are exempt from regulatory oversight. Activities requiring permitting, reporting, and/or registration include the storage of petroleum products, fertilizers, hazardous waste, use oil, and hazardous materials.

For the purpose of assigning an IDP score, the Gadsden-Etowah MS4 entities will determine the number of registered sites within each drainage basin using data obtained from publicly-available sources such as the Facility Registry System, EPA ECHO Database, and ADEM E-file system. The data sources used will be cited in the Annual Report. An IDP score will be assigned for each drainage basin based on the following criteria.

**Table 8. Potential Generating Sites**

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

### 3.6 Age of Development

The *Gadsden, Alabama Urbanized Area* was first settled in the early 1800s. Areas where the average age of development is over 50 years were constructed before the cities established sanitary sewer service, and would have been added to the sewer system when it was first constructed. These areas will be considered to have high illicit discharge potential due to the possibility of leaking pipes, improper connections, or modified connections.

The Gadsden-Etowah MS4 will evaluate the delineated drainage basins and assign an IDP score based on the following criteria.

**Table 9. Average Age of Development**

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

### 3.7 IDP Assessment

The delineated drainage basins will be analyzed each reporting period to determine the priority areas for that period’s dry weather monitoring. Examples of how IDP is assessed are shown in Tables 9 and 10. A worksheet for drainage basin scoring is included in **Appendix C**.

**Table 10. IDP Calculation - Example 1**

DRAINAGE BASIN CRITERION	RESULTS	IDP SCORE
Zoning / Land Use	Industrial districts	3
Number of IDDE Reports in Past 2 Years	3 (2012) + 16 (2013) = 19	2
Number of Potential Generating Sites	1 site	1
Average Age of Development	75 years	3
<b>TOTAL IDP SCORE – EXAMPLE 1</b>		<b>9</b>

**Table 11. IDP Calculation - Example 2**

DRAINAGE BASIN CRITERION	RESULTS	IDP SCORE
Zoning / Land Use	Business districts	2
Number of IDDE Reports in Past 2 Years	5 (2012) + 12 (2013) = 17	2
Number of Potential Generating Sites	2 sites	1
Average Age of Development	12 years	2
<b>TOTAL IDP SCORE – EXAMPLE 2</b>		<b>7</b>

Based on the four criteria, the lowest possible IDP score is a 4. The highest possible IDP score is a 12. **Priority Areas are those drainage basins having an IDP score between 9 and 12.** Therefore, the drainage basin in Example 1 would be designated a Priority Area. The drainage basin in Example 2 would not.

## 4. FIELD ASSESSMENT ACTIVITIES

### 4.1 Rational Statement

As required by Section III.B.3(iv) of the NPDES General Permit, the Gadsden-Etowah MS4 entities 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 Identification

The Gadsden-Etowah MS4 entities will each implement stream-walking programs designed to identify previously unknown outfalls to the MS4. The stream-walking programs should target Priority Areas first. Coordination between entities will be required where a delineated drainage basin crosses a municipal boundary.

Starting at the location where a waterbody exits a delineated drainage basin, field crews will move upstream to identify points where storm water discharged from the MS4 enters the waterbody. 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 C**) or on a separate form. The forms will be used to add the identified outfalls to the entity's MS4 map. An updated map will be provided with the Annual Report.

Based on the National Hydrography Dataset (NHD), the Gadsden-Etowah MS4 area contains approximately 150 miles of stream length. As streams are mapped by each entity, the total stream lengths may change from those identified in the NHD.

**Table 12. NHD Stream Lengths in the MS4**

ENTITY	STREAM LENGTH IN REGULATED MS4 AREA (MILES)
Attalla	11.26
Gadsden	53.21
Glencoe	5.63
Hokes Bluff	9.16
Rainbow City	14.41
Southside	18.65
Etowah County	35.16

The entities will walk approximately 20% of their total stream length within the regulated MS4 each reporting period. Based on the stream lengths obtained from the national hydrography dataset, the anticipated date of completion for the initial mapping is **March 31, 2019**.

Outfall identification may also be conducted in conjunction with dry-weather monitoring activities discussed in Section 7 of this plan.

### 4.3 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 MS4 entities will verify probable outfalls through field observation. Probable outfalls will be verified **within 18 months** of being added to the storm water system map.

Field observation to verify an outfall 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 C**) or on a separate form. The forms will be used to add the identified outfalls to the entity's MS4 map. An updated map will be provided with the Annual Report.

Outfall verification may be conducted in conjunction with dry-weather monitoring activities discussed in Section 7.

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

The Gadsden-Etowah MS4 entities will perform dry weather monitoring of known outfalls as detailed in Section 7.

### **5. 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.

Part III.3(a)(ii) of the Permit requires that the Gadsden-Etowah MS4 develop a map showing:

1. Location of all outfalls;
2. Names and location of all waters of the State that receive discharges from those outfalls;
3. Structural BMPs owned, operated, and maintained by boundaries of the Permittee's watershed;
4. Storm water outfalls which become known;
5. Known connections to the MS4 authorized or allowed by the Permittee after the effective date of permit coverage; and,
6. Any geographic areas which may discharge storm water into the Permittee's MS4, which may not be located within the regulated area boundary.

#### **5.2 Existing Features**

Existing storm sewer infrastructure will be mapped to assist with drainage basin delineation, the determination of priority areas, outfall inspections, and IDDE investigations. Mapping should include storm sewer pipes, manholes, inlets, and junction boxes to help identify illicit connections or illicit discharge sources.

Existing storm drain features such as ditches or swales will be mapped using both aerial photography and field observations. Natural drainage features that are mapped using aerial

photography will be verified by municipal or county personnel or contracted crews in conjunction with the stream-walking program.

Each Gadsden-Etowah MS4 entity will continue to update their existing storm sewer maps as storm drain features are identified.

### **5.3 Future Additions**

Proposed additions to the Gadsden-Etowah MS4, including new storm sewers or drainage ditches, will be mapped based on the civil plans provided to the entity in which the project is located. Plans will be provided by developers and the relevant features will be added to the entity's storm sewer map.

The City of Southside will require developers to submit drainage plans in electronic format compatible with the City's mapping system. The City of Southside will also require developers to provide latitude and longitude coordinates of outfalls in decimal degrees.

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

### **5.4 Outfalls**

As discussed in Section 4, newly verified or identified outfalls will be added to the storm sewer map, and an updated map will be provided with the Annual Report.

## **6. IDDE ORDINANCES**

### **6.1 Rationale Statement**

The purpose of an illicit discharge ordinance is to provide legal authority to the Gadsden-Etowah MS4 entities to prohibit illicit discharges, investigate suspected illicit discharges, require elimination of illicit discharges, and carry out enforcement actions.

Part III.B.3.(a)(iii) of NPDES Permit ALR040009 requires the entities comprising the Gadsden-Etowah MS4 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.2 of the Permit, and implement appropriate enforcement procedures and actions.

Currently, the six municipalities in the Gadsden-Etowah MS4 have adopted an illicit discharge ordinance. Copies of the ordinances are included in **Appendix B**.

**Table 13. Gadsden-Etowah MS4 IDDE Ordinances**

MS4 ENTITY	ORDINANCE NUMBER	DATE ADOPTED
City of Attalla	802(08)	02-19-2008
City of Gadsden	O-77-05	05-17-2005
City of Glencoe	07-06	11-08-2007
City of Hokes Bluff	O-2012-002	12-11-2012
City of Rainbow City	490	12-10-2012
City of Southside	O-10-2012	12-10-2012
Etowah County	NOT APPLICABLE – ORDINANCE PROHIBITED BY STATE LAW	

In the case of Etowah County, home rule is limited by the state constitution. Counties have no general grant of power in the state constitution and must go to the Alabama Legislature for authority to engage in any activity not currently authorized by the State Constitution. Authority may be granted through constitutional amendments or by an act of the legislature known as "local legislation." Etowah County currently does not have the authority to enact an illicit discharge ordinance, and will require action from the Alabama Legislature to gain that ability.

## **6.2 Prohibit Illicit Discharges and Connections**

The IDDE ordinances must explicitly prohibit non-storm water discharges into the storm sewer system, with the exception of those non-storm discharges specifically allowed by NPDES Permit ALR040009. The IDDE ordinances must also explicitly prohibit illicit connections to the storm sewer system. The prohibition of illicit connections should be retroactive, to include connections made in the past, whether or not the connection was permissible at the time.

Sections 108-8, 108-8, 8, and VIII of the Attalla, Gadsden, Glencoe, and Southside ordinances, respectively, specifically define and prohibit illicit discharges and illicit connections. The prohibition of illicit connections is retroactive in all four ordinances.

Rainbow City ordinance 490 and Hokes Bluff ordinance O-2012-002 do not use the term "illicit discharge" or "illicit connection" but Section 11.A of the Rainbow City ordinance and Section 11.1 of the Hokes Bluff ordinance list allowable discharges. Sections 11.B and 11.2 of the Rainbow City and Hokes Bluff ordinances prohibit all discharges not explicitly authorized in the ordinances.

## **6.3 Enforcement Responsibility**

The IDDE ordinances should specify which department or individual within each municipality is responsible for IDDE program enforcement.

Section 108-9(1) of Attalla ordinance 802(08) specifies that the departments of building and public works have the authority to pursue enforcement actions as described in Section 108-9(2).

Section 108-9(1) of Gadsden ordinance O-77-05 specifies that enforcement authority is granted to the departments of planning and engineering, with the available enforcement actions detailed in Section 108-9(2).

Section 9(1) of Glencoe ordinance 07-06 specifies that the departments of building and zoning have the authority to pursue enforcement actions as described in Section 9(2).

Section 11.3 of Hokes Bluff ordinance O-2012-002 specifies that the City of Hokes Bluff intends to rely upon ADEM for enforcement of violations of the ordinance. No enforcement action will be taken by the City of Hokes Bluff if ADEM issues a Notice of Violation or an administrative order, or if ADEM commences administrative or civil action. If a violation is not appropriately corrected or abated following the ADEM enforcement action, then the City will proceed with the enforcement actions authorized in Section 11.8.

Section 11.C of Rainbow City ordinance 490 specifies that Rainbow City intends to rely upon ADEM for enforcement of violations of the ordinance. No enforcement action will be taken by Rainbow City if ADEM issues a Notice of Violation or an administrative order, or if ADEM commences administrative or civil action. If a violation is not appropriately corrected or abated following the ADEM enforcement action, then the City will proceed with the enforcement actions authorized in Section 11.F.

Section IX(1) of Southside ordinance O-10-2012 grants enforcement authority to the departments of planning and engineering and specifies the available enforcement actions in Section IX(2).

## **6.4 Enforcement Actions**

The IDDE ordinances must provide the municipalities with the ability to perform inspections, trace suspected illicit discharges, require elimination of confirmed illicit discharges, and compel compliance with the ordinance.

The IDDE ordinance must describe the enforcement actions available to the municipality. Enforcement actions may include a Warning Notice, a Notice of Violation, suspension of MS4 access, alternative compensatory actions (e.g., storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.), civil penalties, and criminal prosecution.

Sections 108-7(3) of Attalla ordinance 802(08) grants the city the ability to establish inspection programs. Section 108-9 lists the available enforcement actions.

Section 108-7(3) of Gadsden ordinance O-77-05 grants the city the ability to establish inspection programs. Section 108-9 lists the available enforcement actions.

Section 7(3) of Glencoe ordinance 07-06 grants the city the ability to establish inspection programs. Section 9 lists the available enforcement actions.

Section 9.2 of Hokes Bluff ordinance O-2012-002 provides for inspections of properties where Land Disturbing Activities are being conducted or where Post-Construction Strategies have been implemented. Section 11 lists the available enforcement actions.

Section 9.B of Rainbow City ordinance 490 provides for inspections of properties where Land Disturbing Activities are being conducted or where Post-Construction Strategies have been implemented. Section 11 lists the available enforcement actions.

Section VII(3) of Southside ordinance O-10-2012 grants the city the ability to establish inspection programs. Section IX lists the available enforcement actions.

## **6.5 Evaluation**

Each entity's ordinance will be reviewed on an annual basis and updated as needed. The ordinances will be evaluated on their effectiveness in addressing identified illicit discharges and preventing repeat offenders.

# **7. OUTFALL RECONNAISSANCE INVENTORY**

Each Gadsden-Etowah MS4 entity will conduct an Outfall Reconnaissance Inventory (ORI) to visually inspect known outfalls from the regulated portion of its storm water drainage system for the purpose of locating, identifying, and correcting illicit discharges to the MS4.

## **7.1 Rationale Statement**

Visual inspections of outfalls are critical to the identification and elimination of illicit discharges. 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. Where suspect discharges are observed, additional testing can assist in determining the discharge source.

## **7.2 Prioritization Schedule**

The drainage basins designated as Priority Areas using the procedures outlines in Section 3 of this plan will be prioritized for outfall inspection activities. Outfalls located in Priority Areas will be inspected at a greater frequency than outfalls located outside Priority Areas.

The Gadsden-Etowah MS4 is currently in the process of performing the initial delineation and evaluation of Priority Areas. Once the initial IDP assessment is completed and Priority Areas are assigned for the 2014-2015 reporting period, each entity should be able to determine what percentage of outfalls they have the capability to inspect each year.

Following the initial assessment, Priority Areas will be re-evaluated **by April 30 of each year** (e.g., by April 30, 2015 for the April 1, 2015 through March 31, 2016 reporting period). The anticipated inspection schedule for the following reporting period will be included in each Annual Report.

### 7.3 Responsibility

ORI inspections within the jurisdiction of each Gadsden-Etowah MS4 entity are the responsibility of the entity's **IDDE Program Manager**. Inspections may be performed by municipal staff or by subcontracted crews. All field reports will be received and reviewed by the entity's **IDDE Program Manager**. Table 18 in Section 11.1 of this plan lists the **IDDE Program Manager** for each entity.

### 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
- Due to sample hold time, discharge samples should not be collected on a Friday, Saturday, or Sunday.

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
2. Safety gear (e.g., vest, hard hat, cones)
3. City or County 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 **IDDE Program Manager** may coordinate with other municipal departments to locate 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 and entry permits completed.

## **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 D**.

## 7.8 Visual Inspection

Visual observations are used to observe conditions at the outfall and complete the Outfall Reconnaissance Inventory Field Sheet (see **Appendix C**). 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 14. 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 15. Illicit Discharge Indicators**

PARAMETER	INDICATOR
Surfactants	> 0.25 mg/L indicates discharge is contaminated by sewage or washwater
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 washwater ≥50 mg/L indicates industrial discharge
Potassium	A/P ratio > 1 indicates sewage; A/P ratio < 1 indicates washwater ≥20 mg/L indicates industrial discharge
Total Phosphorous	> 0.4 mg/L indicates contamination from lawn practices, agriculture, sewage, or washwater

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 16. 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 Phosphorous	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 entity's **IDDE Program Manager** 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 entity’s **IDDE Program Manager**.

**7.12 Outfall Ranking**

Section 6 of the ORI Field Sheet requires the inspector to characterize the observed outfall as having obvious, suspect, possible, or unlikely discharge potential.

Discharges with an “obvious” ranking will be investigated within 10 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 30 days. Discharges that have a “potential” ranking will be investigated within 60 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 17. Outfall Ranking**

RESPONSE TIME	RANKING	CHARACTERISTICS
10 days	Obvious	Outfalls where there is an illicit discharge that doesn’t require sample collection for confirmation
30 days	Suspect	Flowing outfalls with high severity (ranking of 3) on one or more physical indicators
60 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. 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

When an illegal dumping or other illicit discharge source is directly observed by inspection personnel, it is generally not necessary to follow these investigation procedures, as the source of the problem discharge is already known.

## **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 testing

## **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 EPA and 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 entity responsible for the investigation will notify the Etowah County Health Department, Environmental Services Division at (256) 439-2586.

Once a complaint is received, the Health Department will 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.

Each entity's **IDDE Program Manager** will be responsible for coordinating with the Etowah County Health Department to confirm that the required corrective actions have been completed.

## **9. ILLICIT DISCHARGE ELIMINATION**

### **9.1 Rationale Statement**

Following the identification of an illicit discharge or connection, the **IDDE Program Manager** for the entity with jurisdiction will first attempt to secure voluntary compliance through education. If corrective actions are not taken, the municipality will respond to identified illicit discharges, illicit connections, or illegal dumping activities using the enforcement actions defined in their illicit discharge ordinance.

As previously discussed, the County does not currently have the ability to enact an illicit discharge ordinance; therefore, identified illicit discharges, connections, or dumping activities will be reported to the ADEM Water Division for enforcement actions.

### **9.2 Voluntary Compliance**

When an illicit discharge or illicit connection is identified, the **IDDE Program Manager** for the entity with jurisdiction 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 **IDDE Program Manager** 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 **IDDE Program Manager** is required to coordinate with the appropriate municipal department to pursue follow-up enforcement action.

The Gadsden, Glencoe, Southside, and Rainbow City ordinances provide for the issuance of a Written Notice specifying the violation and requiring the submission of an explanation for the violation and a plan to correct it and prevent future violations. The response must be submitted to the city issuing the notice within 10 days of the date of the notice.

The Gadsden, Glencoe, and Southside ordinances provide for the issuance of Consent Orders describing the specific actions that must be taken and a specific time frame for completion. The ordinances also allow a violator the opportunity of a Show Cause Hearing to explain why a proposed enforcement action should not be taken against the violator.

The Gadsden, Glencoe, Southside, and Rainbow City ordinances all provide for the issuance of Compliance Orders or Cease and Desist Orders.

## **9.4 Corrective Action Record Keeping**

When a suspect illicit discharge or illicit connection is identified, the entity's **IDDE Program Manager** will open a case log detailing:

- Type of suspected discharge
- Location of suspected discharge
- Copy of the ORI or IDDE 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. PUBLIC EDUCATION**

### **10.1 Rationale Statement**

Part III.B.3(a) of NPDES permit ALR040009 requires that the Gadsden-Etowah MS4 “inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.”

The Gadsden-Etowah MS4 entities have selected outreach activities that educate the public and businesses about their ultimate impact on water quality and its potential impact on them. This measure is intended to reduce pollutants at the source by helping dischargers understand the potential negative consequences of their activities.

## 10.2 Target Audiences

The primary target audiences within the Gadsden-Etowah MS4 for public education related to the IDDE program are:

- **Municipal Employees**
  - Primarily responsible for identifying and reporting illicit discharges
  - Responsible for preventing illicit discharges associated with municipal operations
- **General Public** (homeowners and citizens)
  - Potential contributors of illicit discharges from activities such as dumping paint, motor oil, or other chemicals into a storm drain
  - Encouraged to report potential illicit discharges
- **Engineers, Developers, and Contractors**
  - Potential contributors of illicit discharges through dumping of paint, concrete washout water, oil, or construction site sediments into the storm water system
- **Local Businesses**
  - Potential contributors of illicit discharges through unpermitted or facilities
  - Potential contributors of illicit discharges through improper facility operations or lack of best management practices

## 10.3 Municipal Employees

In coordination with the Pollution Prevention and Good Housekeeping for Municipal Operations control measures discussed in the Storm Water Management Program (SWMP) and most recent Annual Report, municipal and County 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 pollution prevention, good housekeeping measures, and illicit discharge detection. Specific municipal operations such as fueling, vehicle maintenance, vehicle washing, paint and paint waste storage and disposal, and used oil disposal may be addressed.

## 10.4 General Public

In coordination with the Public Education and Outreach measures discussed in the SWMP and most recent Annual Report, the Gadsden-Etowah MS4 entities will prepare and distribute educational materials 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.

Each entity 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 entities will publicize the selected illicit discharge reporting method on the storm water webpage on their respective websites.

### **10.5 Engineers, Developers, and Contractors**

In coordination with the Public Education and Outreach measures discussed in the SWMP and most recent Annual Report, the Gadsden-Etowah MS4 entities will provide educational materials to individuals requesting building or development permits. These materials may include information on construction storm water permitting, erosion and sediment controls, the impacts of sediment on water quality, proper disposal of construction waste, or proper storage and disposal of paints and paint waste.

### **10.6 Local Businesses**

In coordination with the Public Education and Outreach measures discussed in the SWMP and most recent Annual Report, the Gadsden-Etowah MS4 entities will prepare and distribute educational materials at selected public locations. 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.

The Gadsden-Etowah MS4 will also prepare educational materials for distribution during illicit discharge investigation activities. These materials will provide information on common business-related illicit discharges, NPDES permitting, and the municipal IDDE ordinance.

## **11. RESPONSIBLE PARTIES**

The **IDDE Program Manager** for each entity is responsible for the coordination and implementation of the IDDE Program within their municipality's or County's jurisdiction.

### **11.1 Coordination Between Entities**

Coordination between departments and individuals within the Gadsden-Etowah MS4 is critical to effective implementation of the IDDE Program. The **IDDE Program Manager** for each municipality or County 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.

The following table lists each entity’s **IDDE Program Manager** and contact information.

**Table 18. Contacts for IDDE Program Implementation**

MS4 ENTITY	IDDE PROGRAM MANAGER	PHONE	EMAIL
City of Attalla	Jason Nicholson	256-441-9200	j.nicholson@attallacity.com
City of Gadsden	Jeremy Ward	256-549-4527	jward@cityofgadsden.com
City of Glencoe	Bobbi Noah	256-492-1424	bobbinoh@cityofglencoe.net
City of Hokes Bluff	Lisa Johnson	256-492-2414	hbcity@cityofhokesbluff.net
City of Rainbow City	Heath Williamson	256-413-1240	heathw@rbcAlabama.com
City of Southside	Jimmy Whittemore	256-442-9775 Ext. 103	jwhittemore@cityofsouthside.com
Etowah County	Robert Nail	256-549-5358	tgraves@etowahcounty.org

## **12. 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 Gadsden-Etowah MS4.

### **12.2 IDDE Tracking System**

Suspect illicit discharges will be logged in a case file and identified on the storm water system maps. The data collected by 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 each entity or drainage basin.

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

### **12.3 Priority Areas**

Currently, priority drainage basins are identified based on land use, number of past illicit discharge reports or complaints, number of potential generating sites, and age of infrastructure. Illicit discharge potential scores are calculated using the methods described in Section 3 of this plan.

The purpose of designating priority areas is to pin-point areas where program funds and efforts can be targeted to the most effect. Too few or too many priority areas are not beneficial to the implementation of the IDDE program; therefore, the methods for determining priority areas will be evaluated annually to ensure that the criteria are not too inclusive or exclusive.

Part III.3(a)(iv) of NPDES Permit ALR040009 requires that the Gadsden-Etowah MS4 evaluate, at a minimum:

- Land uses associated with business/industrial activities present;
- Areas where complaints have been registered in the past; and
- Areas with storage of large quantities of materials that could result in spills.

Possible future criteria for the evaluation of illicit discharge potential include:

- Number of outfalls per stream mile
- Septic system density
- Sanitary sewer condition and age

Additional criteria may be removed or added as necessary. The rationale for eliminating or adding criteria will be discussed in the Annual Report.

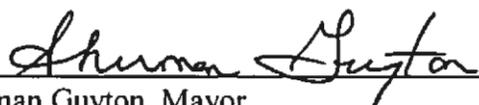
## **12.4 Field Screening**

The field screening values identified in Section 7.9 of this plan are currently based on values obtained by other municipalities in other areas of the state. Once enough data has been collected, the Gadsden-Etowah MS4 will review the results from both unlikely and suspect flows and determine if the screening values should be adjusted.

**13. AGENCY CERTIFICATIONS**

**13.1 City of Gadsden**

I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the City of Gadsden, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Sherman Guyton, Mayor  
City of Gadsden, Alabama

3/28/14  
Date

**13.2 City of Glencoe**

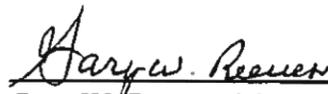
I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the City of Glencoe, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

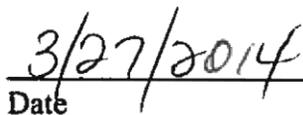
  
\_\_\_\_\_  
Charles Gilchrist, Mayor  
City of Glencoe, Alabama

3-28-2014  
Date

### 13.3 City of Hokes Bluff

I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the City of Hokes Bluff, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

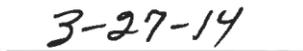
  
\_\_\_\_\_  
Gary W. Reeves, Mayor  
City of Hokes Bluff, Alabama

  
\_\_\_\_\_  
Date

### 13.4 Rainbow City

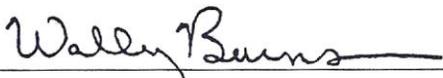
I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the Rainbow City, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Terry John Calhoun, Mayor  
Rainbow City, Alabama

  
\_\_\_\_\_  
Date

**13.5 City of Southside**

I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the City of Southside, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Wally Burns, Mayor  
City of Southside, Alabama

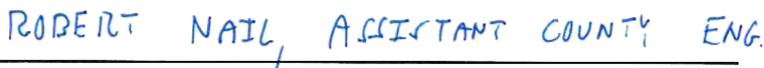
\_\_\_\_\_  
March 28, 2014  
Date

**13.6 Etowah County**

I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the Etowah County, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Signature of Etowah County Responsible Official

\_\_\_\_\_  
3/28/14  
Date

  
\_\_\_\_\_  
Print Name and Title

**13.7 City of Attalla**

I certify under penalty of law that this Illicit Discharge Detection and Elimination Program and all attachments pertaining to the City of Attalla, Alabama Municipal Separate Storm Sewer System were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Larry Means, Mayor  
City of Attalla, Alabama

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Print Name and Title

**GADSDEN-ETOWAH MS4**  
**ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**  
NPDES General Permit ALR040009

**APPENDIX A – FIGURES**

Figure 1 – Gadsden, Alabama Urbanized Area

**GADSDEN-ETOWAH MS4**  
**ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**  
NPDES General Permit ALR040009

**APPENDIX B – IDDE ORDINANCES**

City of Attalla , Ordinance No. 802(08), dated February 19, 2008

City of Gadsden, Ordinance No. O-77-05, dated May 17, 2005

City of Glencoe, Ordinance No. 07-06, dated November 8, 2007

City of Hokes Bluff, Ordinance No. O-2-12-002, dated December 11, 2012

Rainbow City, Ordinance No.490, dated December 10, 2012

City of Southside, Ordinance No. O-10-2012, dated December 10, 2012

**GADSDEN-ETOWAH MS4**  
**ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**  
NPDES General Permit ALR040009

**APPENDIX C – FORMS**

Drainage Basin Illicit Discharge Potential Worksheet

Outfall Reconnaissance Inventory Field Sheet

**GADSDEN-ETOWAH MS4**  
**ILLCIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**  
NPDES General Permit ALR040009

**APPENDIX D – FLOW CHARTS**

When to Sample: ORI Observations and Sampling

Evaluating Analytical Data to Determine Discharge Type