

**Madison MS4  
2014-2015 Annual Report  
City of Madison, Alabama  
NPDES Permit No. ALS000014  
S&ME Project No. 4482-15-041**



Prepared for:  
**City of Madison**  
**100 Hughes Road**  
**Madison, Alabama 35758**

Prepared by:  
**S&ME, Inc.**  
**399 Executive Dr**  
**Huntsville, AL 35816**

**January 28, 2016**



January 28, 2016

City of Madison  
100 Hughes Road  
Madison, Alabama 35758

Attention: Ms. Gina Romine, ADEM Compliance Administrator

Reference: **2014-2015 Annual Report**  
**City of Madison, Alabama**  
NPDES Permit No. ALS000014  
S&ME Project No. 4482-15-041  
NPDES Permit No. ALS000014

Dear Ms. Romine:


S&ME, Inc. has completed the Annual Report for the October 1, 2014 to September 30, 2015 reporting period for the above-referenced project. Our services were performed in accordance with S&ME Proposal No. 44-1500180, dated June 18, 2015 and authorized by Purchase Order 2016-00000129, dated October 22, 2015.

One hardcopy and an electronic copy of the Annual Report was submitted on CD to the Alabama Department of Environmental Management on January 29, 2015. One hardcopy of the Annual Report and an electronic copy are included for your records and for inspection by ADEM.


S&ME appreciates the opportunity to be of service to you. If you have any questions regarding the information provided herein, please do not hesitate to contact us.

Sincerely,

**S&ME, Inc.**

  
Sarah L. Yeldell, PE  
Project Manager

  
Emily J. Kennedy  
Environmental Scientist

  
Deborah J. Jones, PE  
Senior Engineer



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## 1.0 Introduction

S&ME, Inc. has prepared this Annual Report for the City of Madison Phase II Small Municipal Separate Storm Sewer System in accordance with S&ME Proposal No. 44-1500180, dated June 18, 2015 and authorized by Purchase Order 2016-00000129, dated October 22, 2015.

The Annual Report is required by Part IV of the Alabama Department of Environmental Management (ADEM) National Pollutant Discharge Elimination System (NPDES) Individual Permit ALS000014 for discharges from the City of Madison municipal separate storm sewer system (Madison MS4).

### 1.1 Permit History

The Storm Water Phase I Final Rule issued by the United States Environmental Protection Agency (EPA) in 1990 requires coverage of all operators of "medium" and "large" MS4s serving populations of 100,000 or greater. The Individual Phase I NPDES Permit ALS000005 for storm water discharges from the Huntsville Area Medium MS4 was issued to the City of Madison, the City of Huntsville, and the Alabama Department of Transportation (ALDOT) with an effective date of October 1, 2001. The five-year permit expired on September 30, 2006 and permit coverage was administratively extended.

NPDES Permit ALS000005 covered all areas within the corporate boundaries of the City of Madison and the City of Huntsville. From 2001 to 2013, the City of Madison, the City of Huntsville, and ALDOT operated as co-permittees under the joint MS4 Permit. In April of 2013, ALDOT was issued an Individual NPDES MS4 permit and ALDOT's coverage under the permit with Madison and Huntsville was terminated.

The Storm Water Phase II Rule issued by the EPA 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. As of the 2010 Census, approximately 86.6% of the area of the City of Madison was located within the *Huntsville, Alabama Urbanized Area*.

In August of 2014, the City of Madison received a draft of the Phase I permit for reissuance. In October 2014, the City met with ADEM to discuss an Individual Phase II Permit. The draft of Individual NPDES Permit ALS000014 was filed for public notice on February 18, 2015.

Individual Phase II NPDES Permit No. ALS000014 for storm water discharges from the Madison MS4 was issued to the City of Madison with an effective date of **May 1, 2015**. The Individual Phase II Permit replaces the Individual Phase I permit previously issued to the City of Madison, the City of Huntsville, and the Alabama Department of Transportation. NPDES Permit ALS000014 currently covers all urbanized areas within the corporate boundaries of the City of Madison. The permit will expire on **April 30, 2020**. A copy of the Individual Phase II NPDES Permit is included in **Appendix B**.



## 1.2 Enforcement History

On August 12-13, 2013, ADEM representatives conducted an audit of the City of Madison’s MS4 Program. As a result of the audit findings, a Notice of Violation (NOV) was issued to the City on December 19, 2013 citing deficiencies in the City’s implementation of the permit requirements. The NOV required that the City submit a Storm Water Management Program Plan (SWMPP) to ADEM by March 19, 2014.

On March 26, 2014, Consent Order No. 14-049-CWP was issued to the City of Madison. The Consent Order required that the City submit a revised SWMPP by April 30, 2014. The revised SWMPP was submitted to ADEM in April 2014.

## 1.3 Madison MS4 Area

The City of Madison Municipal Separate Storm Sewer System (Madison MS4) is defined as the area within both the city limits and the urbanized area boundary. The Madison MS4 comprises approximately 25.7 square miles (12.20%) of the *Huntsville, Alabama Urbanized Area*. A map outlining the approximate boundary of the Madison MS4 is included in **Appendix A** as Figure 2.

According to the 2010 Census, the City of Madison has a total population of 42,938, approximately 99.75% of which live within the designated urbanized area boundary.

## 1.4 Hydrologic Units in the MS4 Area

The Tennessee River is the ultimate receiving water for the Madison MS4.

**Table 1-1 Hydrologic Hierarchy**

Region	06	Tennessee
Subregion	06-03	Middle Tennessee-Elk
Basin	06-03-00	Middle Tennessee-Elk
Subbasin	06-03-00-02	Wheeler Lake

**Table 1-2 Watersheds in the MS4 Area**

Watershed	10 Digit HUC
Indian Creek	06030002-05
Limestone Creek	06030002-07
Tennessee River-Wheeler Lake	06030002-09



**Table 1-3 Subwatersheds in the MS4 Area**

Subwatershed	12 Digit HUC	Portion of MS4 in Subwatershed (Sq Mi)	% of MS4 In Subwatershed
Barren Fork Creek	06030002-05-04	17.69	68.64
Beaverdam Creek	06030002-09-05	1.91	7.41
Lower Indian Creek	06030002-05-05	3.99	15.48
Middle Limestone Creek	06030002-07-02	1.44	5.59
Upper Indian Creek	06030002-05-01	0.71	2.76

A map showing the subwatersheds in relation to the Madison MS4 boundary is included as Figure 3 in **Appendix A**.

### 1.5 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 (40 CFR 130) 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.

The Madison city limits currently encompass portions of two subwatersheds for waterbodies with TMDLs. Limestone Creek north of Highway 72 (segment AL06030002-0703-102) and Indian Creek north of Highway 72 (segment AL06030002-0501-100) are identified as impaired waterbodies. TMDLs were established for both segments in February of 2002.

None of the City's outfalls discharge directly to an impaired waterbody; however, construction sites within the Middle Limestone Creek and Upper Indian Creek watersheds are considered Priority Construction Sites, as defined in Part IV.T.31 of the Alabama Construction General Permit.

A map showing the impaired waterbodies in relation to the Madison city limits is included as Figure 4 in **Appendix A**. A map showing the portions of the City located within the TMDL watersheds is included as Figure 5 in **Appendix A**.

### 1.6 Annual Report Components

Part IV of the Permit requires that the Madison MS4 submit annual reports to ADEM by January 31 of each year. This annual report covers October 1, 2014 through September 30, 2015 and includes:

1. List of contacts and responsible parties
2. Overall evaluation of the Storm Water Management Program
3. Narrative report and summary tables of all SWMP elements





4. Status of the SWMPP implementation and assessment of controls and water quality changes
5. A summary of inspections and enforcement actions
6. Implementation status of the public education programs
7. A budget analysis for the 2015 fiscal year and the 2016 fiscal year

## 2.0 Contacts List

Part IV.3.a of the NPDES Permit requires that the City of Madison provide a list of contacts and responsible parties involved in the preparation of the Annual Report. The following personnel were directly responsible for the preparation of the 2014-2015 Annual Report:

**Ms. Gina Romine**

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**Ms. Sarah Yeldell, P.E.**

Consultant  
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Questions concerning the 2014-2015 Annual Report should be directed to the ADEM Compliance Administrator.



## 3.0 Program Evaluation

### 3.1 Major Findings

None of the waterbodies located within the Madison corporate limits were identified on the 2014 303(d) list. All assessed waterbodies within the City of Madison are in compliance with the water quality standards applicable to their designated use classifications.

As discussed in section 1.5, the Madison corporate limits currently encompass portions of two subwatersheds for waterbodies with TMDLs. Approximately 1.44 square miles of the City discharge indirectly to Limestone Creek north of Highway 72 (segment AL06030002-0703-102). Approximately 0.71 square miles of the City discharge indirectly to Indian Creek north of Highway 72 (segment AL06030002-0501-100).

TMDLs for siltation were established for both the Indian Creek and Limestone Creek segments in February of 2002. The TMDL document identified the primary sources of impairment as row cropping practices and roadways. TMDLs for organic enrichment and dissolved oxygen were established for the Indian Creek segment in February of 2002.

The definition of a priority construction site under the Alabama Construction General Permit includes any site that discharges to a waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation, or sedimentation. Construction sites located within the watersheds for the impaired segments of Indian Creek and Limestone Creek are considered priority construction sites by ADEM. A map showing the portions of the City located within the priority watersheds is included as Figure 5 in **Appendix A**.

### 3.2 Major Accomplishments

The City of Madison made several changes during the 2014-2015 reporting period to strengthen, organize, and consolidate the Storm Water Management Program.

#### 1. Transitioned to an Individual Phase II Permit

Individual Phase II NPDES Permit ALS000014 was issued to the City of Madison on April 28, 2015 with an effective date of May 1, 2015. The Individual Phase II Permit differs from the existing Individual Phase I Permit in that separate program elements are no longer required for roadway maintenance; pesticide, herbicides, and fertilizers; spill prevention and response; or industrial and high-risk runoff.

#### 2. Implemented a Storm Water User Fee

To address funding for the Storm Water Program, the City developed an ordinance to create a Storm Water User Fee, in accordance with state law. The ordinance will levy an annual fee of \$0.005 per square foot of commercial space on properties with a Class II land use classification and \$10 on properties with a Class III land use classification. The Madison County Tax Assessor and the Limestone County Revenue Commissioners Office will assign the land use classifications.



Ordinance 2014-213 was adopted in October 2014. The City began receiving revenue from the Storm Water User Fee beginning in November 2015. The total expected revenue from the User Fee for FY2016 is \$299,000, and a portion of the revenues collected are credited to ADEM.

### **3. Established a Storm Water Management Program 5 Year Plan**

The City of Madison established a Storm Water User Fee 5 Year Plan for the anticipated revenue collections from the Storm Water User Fee. The Plan was established during the 2014-2015 reporting period and was presented to the City Council during the adoption of the Annual Operating Budget. The FY2016 Annual Operating Budget included the adoption of the FY2016 Storm Water User Fee budget. The City was able to allocate funding for annual reporting requirements, illicit detection and elimination, pollution prevention and good housekeeping for municipal operations, public education on storm water impacts, public involvement initiatives, and water quality improvement projects.

### **4. Began revising the Storm Water Management Program Plan**

On July 24, 2015 the City contracted S&ME, Inc. to prepare a revised Storm Water Management Program Plan meeting the requirements of the Individual Phase II Permit. The revised SWMPP will incorporate many of the strategies employed by the City under the previous Individual Phase I Permit. A revised SWMPP will be submitted by **March 1, 2016**.

### **5. Adopted ordinances**

The City took steps during the 2013-2014 reporting period to obtain the legal authority to compel compliance with the provisions of the NPDES permit and the storm water management program. An Illicit Discharge Detection and Elimination Ordinance and an Erosion and Sedimentation Control Ordinance were developed during the 2013-2014 reporting period, and were adopted during the 2014-2015 reporting period.

### **6. Increased enforcement at construction sites**

Following the adoption of the Erosion and Sediment Control Ordinance in April 2015, the City increased enforcement activity at construction sites within the MS4 boundary. The ordinance requires that copies of the reports of monthly and post-rainfall BMP inspections required by the Alabama Construction General Permit be submitted to the ADEM Compliance Administrator. In June 2015, the City initiated an audit of all active construction projects to determine if the plans in use at each site matched the plans approved by the City and all applicable permits are in effect. The City Engineer also directly contacted local engineers, developers, and contractors to reiterate the requirements of the Erosion and Sediment Control Ordinance and to reaffirm the City's commitment to enforcing the Ordinance. Stop Work Orders were issued to four (4) sites that did not have the required ADEM permit.

### **7. Implemented a stream-walking program**

The City of Madison contracted S&ME, Inc. to conduct stream-walking activities on 13.86 miles of streams within the City limits. 102 outfalls were identified during the 2014-2015 reporting period and dry weather screening was conducted at each of the outfalls. No illicit discharges were observed and no samples were collected.



## **8. Developed a Storm Water Management Program webpage**

During the 2014-2015 reporting period, the City developed a storm water webpage on the City of Madison website. The webpage includes information on the Storm Water User Fee and includes links to the Individual Phase II NPDES Permit, the 2014 SWMPP, the 2013-2014 Annual Report, all storm water related ordinances, a link to the ADEM website, the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, and the Let Us Know reporting system.

## **9. Participated in the 2015 Madison County Drinking Water Festival**

The Madison County Drinking water Festival was held May 10-11, 2015 on the campus of the University of Alabama in Huntsville. The City of Madison was one of the event sponsors, and Ms. Gina Romine, the Madison ADEM Compliance Administrator, attended as a guest. The mission statement of the festival is "To educate students and their families about how groundwater and surface water, as well as other associated natural resources (i.e. wetlands, forestry, wildlife, etc.), relate to drinking water and to instill in them a general environmental awareness and stewardship ethic." The 2015 festival hosted more than 2,000 fourth graders from Huntsville City Schools, Madison County Schools, and Madison City Schools.

## **10. Contracted a Hydraulic/Environmental Engineer**

During the 2014-2015 reporting period the City of Madison contracted Ms. Holly Guest Herring, a Hydraulic/Environmental Engineer, to model detention basins within the City of Madison to improve hydraulic and water quality discharge performance. Ms. Herring began analyzing information to establish floodplains and modifications that may reduce the FEMA-established floodplains. Ms. Herring was hired as a full-time City employee in January 2016.

## **11. Conducted municipal IDDE training**

Forty-four (44) municipal employees participated in the IDDE awareness training conducted on September 16, 2015. The attendees included representatives from the Engineering Department, the Building Department, the Planning Department, the Public Works Department, the Police Department, the Parks and Recreation Department, the Fire Department, and the City Council. The training included background information on the MS4 program, as well as information on common illicit discharges, how to identify illicit discharges, and where to report suspect discharges.

## **12. Continued to implement flood and water quality improvement projects**

The City of Madison remained active in flood control and water quality improvement projects, which also help to filter storm water runoff. The City had one (1) project that remained under construction, two (2) new projects that began construction, and one (1) project that was completed during the 2014-2015 reporting period. Two (2) private projects began construction, one of which was completed and one that was functioning but not yet complete during the 2014-2015 reporting period. The private structures will be maintained for water quality and drainage by the City once they are accepted into the City of Madison Maintenance Program.



### **3.3 Overall Program Strengths / Weaknesses**

The City of Madison Storm Water Management Program is considerably stronger and more effective following the 2014-2015 reporting period.

The main strength of the storm water program is the implementation of the Storm Water User Fee. With a funding source in place, the City has been able to expand the storm water program and commit to additional initiatives such as the expanded public education and water quality improvements programs. The Storm Water User Fee 5 Year Plan established during the 2014-2015 reporting period details the planned expenditures for the Storm Water User Fee Fund.

A second strength of the current program is the adoption and enforcement of the Erosion and Sediment Control and Illicit Discharge Detection and Elimination (IDDE) Ordinances. Following the adoption of the ordinances in April 2015, the City has been diligent in enforcing the provisions of the Alabama Construction General Permit at qualifying sites. There has been a significant adjustment of expectations within the MS4 and the City has worked closely with engineers and developers to educate them on the requirements of the Construction General Permit.

A third strength of the program is the increased public education efforts. During the 2014-2015 reporting period, the City developed a Storm Water Management Program Webpage, sponsored and supported the 2015 Drinking Water Festival, developed a new water quality logo, and prepared over 1,250 promotional items with educational materials for distribution during the 2015 Madison Street Festival on October 3, 2015.

Another strength of the program is the City's continuing commitment to flood control projects. The City of Madison is a rapidly growing community, and the majority of new development is residential. This development is occurring under a planned subdivision process in which flood zones are protected, wetlands are identified and protected, and post-development storm water discharges are controlled to mimic pre-development hydrology, mainly through the use of detention/retention ponds.

The main weakness of the Madison storm water program is the small number of municipal staff that are able to be dedicated exclusively to the performance of the duties required by the Individual Phase II Permit. The City currently employs an ADEM Compliance Administrator as the primary executive of the storm water program. The Engineering Department assists with the storm water program responsibilities, including GIS mapping, performing required inspections and assisting with public education efforts; however, the majority of the program duties are handled by one individual. The City does not currently have the ability to expand the Engineering Department for the storm water program; therefore, this weakness is expected to remain through at least the 2015-2016 reporting period.

A secondary weakness of the current program is that the City is still in the early stages of refining their current program and establishing new procedures to meet the requirements of the Individual Phase II Permit. The addition of the Storm Water User Fee Fund has made it possible to expand the City's storm water efforts, and since the issuance of the Individual Phase II Permit, the City is in the process of building new programs, refining existing programs and establishing ordinances in order to achieve compliance with the Individual Phase II Permit. This weakness is expected to resolve over the next two reporting periods, as the City moves from developing new initiatives to executing well-established programs.



### 3.4 Future Direction of the Program

During the upcoming reporting period, the City plans to:

- Develop and implement a revised Storm Water Management Program Plan
- Implement the Storm Water User Fee 5 Year Plan
- Develop a City-wide storm drainage plan to identify areas that improve flood management and storm water quality and to guide new development to mimic existing conditions
- Develop a more effective means of tracking enforcement activities
- Develop a post-construction storm water management ordinance

## 4.0 Narrative Report

### 4.1 Storm Water Collection System Operations

#### 4.1.1 *Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on twelve (12) Storm Water Collection System Operations strategies. A summary table identifying each Storm Water Collection System Operations strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix C**. Supporting documentation is attached to the summary table.

#### Trash Removal

During the reporting period, the City evaluated various methods of direct removal of trash from waterbodies within the MS4. The City will consider partnering with local civic groups to conduct stream cleanup events for direct trash removal from the MS4. A local chapter of the Boy Scouts of America was identified as a potential partner, and discussions were held with various troop leaders. Communication will be continued during the 2015-2016 reporting period.

During the 2014-2015 reporting period, the City evaluated and selected BMPs to accomplish the direct removal of trash from ponds, inlets, and/or culverts within the MS4. A trash rack was installed at The Pines, a City-owned detention pond project, in September 2015. The City also required the installation of a trash rack at the Burgreen Farms subdivision pond, during the plan review process. The developer installed the required trash rack during the 2014-2015 reporting period. Additional trash removal BMPs will be installed during the 2015-2016 reporting period at other locations within the MS4.

Direct removal of trash prior to entry to the MS4 was accomplished during the reporting period by conducting litter removal in the City-maintained public rights-of-way. Right-of-way litter control activities were performed by the City's landscape contractor and tracked using the Right-of-Way Maintenance log



implemented on March 23, 2015. A total of 413.5 bags (39 gallons each) was collected by the landscape contractor during the reporting period.

The City currently requires common areas of subdivisions (including ponds) to be maintained by the Owner of Record. During the reporting period, the City also met with various Homeowners Associations (HOAs) to discuss potential improvements or changes to existing structural controls to increase functionality. Pollution prevention and maintenance strategies were also discussed.

### **Trash Prevention**

Trash prevention was accomplished during the reporting period by providing disposal alternatives such as waste receptacles. Waste receptacles were maintained in public areas such as City-owned parks, greenways, and the Village Green in downtown Madison.

Another method of trash prevention was through enforcement of the existing litter ordinances. Code Enforcement was responsible for violations pertaining to the Nuisance Control and Property Maintenance Code. During the reporting period, three (3) litter enforcement actions were taken.

Trash prevention was also accomplished by increasing inspections of construction sites. During the reporting period, 3,443 construction site inspections were performed by City personnel. The site BMPs, including trash management, were observed during each site inspection.

### **Event Trash Management**

During the reporting period, the City evaluated and selected temporary BMPs to protect catch basins from litter during the 2015 Madison Street Festival. Drain bags were ordered in September 2014 for use during the festival held on October 3, 2015.

Additional trash receptacles were provided by the Parks and Recreation Department at the 4<sup>th</sup> of July Celebration in Dublin Park. A total of ninety-one (91) bags of trash (39 gallons each) was collected during the event.

Trash removal for the City-managed 4<sup>th</sup> of July celebration was performed immediately following the event.

### **High-Trash Areas**

During the reporting period, the City began evaluating potential high-trash areas based on information from Parks and Recreation. Areas considered for designation included greenway trailheads, City parks, and other areas generating more public use.

Once the high-trash areas are delineated, the City will provide additional trash receptacles in the identified areas as needed.



#### 4.1.2 *General Discussion*

Although the landscape contractor is currently providing litter collection information to the ADEM Compliance Administrator for inclusion in the Annual Report, the reporting requirement is not included in the City Landscape Maintenance Contract. The City plans to include requirements for the removal of trash and the reporting of trash collection in the Bid Specifications for the City Landscape Maintenance Contract.

During the reporting period, the City issued four (4) Special Events Permits, one (1) Parade Permit, and two (2) Race Permits. The event permits required trash management as a condition of the permit, but did not specify that temporary protection of catch basins was required. The City plans to revise the event permits during the 2015-2016 reporting period to include a requirement for temporary protection of catch basins where feasible.

The seven (7) event permits issued during the reporting period required trash management as a condition of the permit, but did not specifically require that event organizers provide trash receptacles. The City plans to revise the event permits during the 2015-2016 reporting period to include the requirement that event organizers provide trash receptacles in the event area.

The event permits also do not currently specify the one-business day timeframe for litter removal. During the revision of the event permits, the City will include the requirement that event trash be removed within one business day of the event.

#### 4.1.3 *Status*

The Storm Water Collection System Operations strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.1 of the Individual Phase II Permit.

The City is in the process of revising the Storm Water Management Program to reflect the changes in the Phase II permit.

#### 4.1.4 *Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the Storm Water Collection System Operations program objectives. The controls are adequate to achieve removal of trash from waterbodies within the urbanized area.

#### 4.1.5 *Proposed Revisions*

Revisions to the current list of Storm Water Collection System Operations strategies will be incorporated into the proposed 2016 SWMPP.

## 4.2 **Public Education and Public Involvement**

### 4.2.1 *Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on fourteen (14) Public Education and Public Involvement strategies. A summary table





identifying each Public Education and Public Involvement strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix D**. Supporting documentation is attached to the summary table.

### **Public Input**

A Storm Water Management Program Webpage was created during the 2014-2015 reporting period to distribute information on the Storm Water User Fee and provide access to the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, and the most recent Annual Report. The webpage also includes a link to the Let Us Know reporting system and a link to the ADEM website. Twenty-five (25) hits were recorded on the webpage during the reporting period.

By posting the 2014 SWMPP on the Storm Water Management Program Webpage, the City is inviting citizens to review the document and submit comments. The City is in the process of revising the current Phase I SWMPP to transition into the new requirements of the Individual Phase II Permit. Once the revised 2016 SWMPP is completed, it will be made available for public comment.

### **Litter Reduction**

During the reporting period, the City evaluated various techniques for marking existing storm drains and identified groups to contact to implement a storm drain marking program. New storm grates that include an anti-pollution statement were selected for use in a Downtown Capital Improvements project and were installed in October 2014.

The Madison Beautification and Tree Board currently manages the City's Pride of Madison Program, which includes the Adopt-a-Mile program. During the reporting period, approximately twenty-six (26) groups and individuals were enrolled in the Adopt-a-Mile program. The Beautification Board participated in the Chamber of Commerce Expo in July 2015 and provided information on the Adopt-a-Mile program to approximately twenty-three (23) organizations.

The City currently provides for the weekly pickup of bagged yard waste as a measure to prevent the deposition of yard debris in the MS4. The weekly pickup of bagged yard waste was contracted out to Republic Services. A total of 6,958.04 tons of bagged debris was collected during the reporting period.

### **Education on Pollution Reduction**

During the reporting period, fifteen (15) items promoting storm water education were developed or prepared for distribution to the public. A brochure rack was installed at City Hall on April 6, 2015 and documents on storm water awareness were placed in the rack. Educational materials were also placed at Public Works and within the Engineering Department. Additional storm water information was included in Council Newsletters, Press Releases, and News Flashes.

The City also developed a storm water awareness logo for inclusion on promotional materials and handouts. During September 2014, approximately 1,250 reusable shopping bags branded with the logo were prepared for distribution at the 2015 Madison Street Festival. The bags were filled with storm water



and flood-related educational materials provided by ADEM, EPA, and FEMA. The City also had 1,500 reusable cups branded with the storm water awareness logo for distribution.

The City is currently working to educate engineers, developers, and contractors through plan review and permitting of new construction and development. During the 2014-2015 reporting period, thirty-nine (39) construction plans were reviewed. The reviews included an assessment of potential storm water impacts and an evaluation of the planned construction and post-construction BMPs.

The 2015 Madison County Drinking Water Festival was held May 10-11, 2015 on the campus of the University of Alabama in Huntsville. The City of Madison was one of the event sponsors, and Ms. Gina Romine, ADEM Compliance Administrator, attended as a guest. The 2015 festival hosted more than 2,000 fourth graders from Huntsville City Schools, Madison County Schools, and Madison City Schools. Following the 2015 event, the City committed to supporting the 2016 Madison County Drinking Water Festival, planned for May 12-13, 2016. The ADEM Compliance Administrator joined the Festival Advisory Committee and attended an August 2015 planning meeting.

During the reporting period, the City maintained the fifty-five (55) existing pet waste stations at City and neighborhood parks and added three (3) additional pet waste stations in Dublin Park.

### Public Participation

The Huntsville Solid Waste Disposal Authority (SWDA) currently administers a hazardous waste collection program. During the reporting period, the City promoted the "Handle with Care" program by distributing brochures and providing a link to the SWDA website on the City of Madison Public Works webpage. Collection days were held the first Saturday of every month at the SWDA facility in Huntsville. During the monthly drop-offs, Madison residents were able to properly dispose of household hazardous waste free of charge.

During the reporting period, the City promoted the curbside recycling program administered by the Huntsville SWDA by distributing the "Our World Is In Your Hands! A Citizens Guide to Recycling in Huntsville, Madison & Madison County" brochure and providing a link to the SWDA website on the City of Madison Public Works webpage. SWDA was responsible for curbside pickup and disposal of the recyclable materials.

On September 2, 2009, the City's "Let Us Know" program was established. The program consists of a webpage and a hotline for residents to report complaints, including those for illicit discharges. The webpage is linked from the main page of the City website. During the reporting period, a link to the Let Us Know system was included on the Storm Water Management Program Webpage. One (1) complaint was received and resolved.

The Madison Police Department held one (1) drug take back event during the reporting period. The event was held on April 18, 2015 and collected approximately 360 pounds of used or expired medications.



## Program Evaluation

During the 2014-2015 reporting period, the Public Education and Involvement Program expanded to significantly increase the number of contacts and activities. As a result, the general public has more resources for participation and is more aware of storm water issues within the City.

During the reporting period, the City established a Public Education budget for the 2015-2016 reporting period that further expands the public education program. The implementation of the Storm Water User Fee and the associated Storm Water User fee 5 Year Plan will allow the City to pursue additional public education and involvement initiatives such as the Madison County Drinking Water Festival and the Madison Street Festival.

### *4.2.2 General Discussion*

As previously discussed, the City completed several strategies promoting public education and involvement. Educational information was more widely distributed than in past years, and the materials were of higher quality and contained a broader array of topics.

The 2014-2015 reporting period was the first year the City targeted the Madison Street festival for promoting storm water awareness. The Street Festival was selected because it is a large annual event in downtown Madison that is held in a relatively small area. The attendance during the 2014 festival was estimated to be 30,000. Due to the expected attendance and the location, the festival provides many more opportunities for contacts than other municipal events such as the 4<sup>th</sup> of July celebration. During the reporting period, the City prepared approximately 1,250 reusable shopping bags for distribution at the festival. The bags were filled with storm water and flood-related educational materials including information on pollution prevention and good housekeeping for residences and businesses. The City also ordered 1,500 color-changing cups with the storm water awareness logo, 2,500 activity books and crayons, and 2,500 EPA "After the Storm" brochures in preparation for the street festival and additional public education events. The 2015 Madison Street Festival was held on October 3, 2015, during the 2015-2016 reporting period.

The 2014-2015 reporting period was also the first year during which the City participated in the Madison County Drinking Water Festival. The Drinking Water Festival provides an opportunity to reach approximately 2,000 students and partner with other stakeholder organizations.

To provide additional opportunities for public involvement, the City plans to contact at least one civic group to invite them to participate in a storm drain marking program. The City will also post the revised SWMPP on the Storm Water Management Program Webpage following its approval by ADEM and adoption by the City. A link will be added to the webpage for citizens to comment on the revised SWMPP.

To advance public education on the subject of pet waste, the City is evaluating the addition of educational signage in select areas. The City will consider alternative signage that includes information on pet waste and water pollution for future pet waste station purchases.



#### 4.2.3 *Status*

The Public Education and Public Involvement strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.2 of the Individual Phase II Permit.

The City is in the process of revising the Storm Water Management Program to reflect the changes in the Individual Phase II Permit.

#### 4.2.4 *Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the Public Education and Public Involvement program objectives. The controls are adequate to educate the community about the impacts of storm water runoff, identify steps the community can take to help reduce pollutants, and provide opportunities for public involvement.

#### 4.2.5 *Proposed Revisions*

Revisions to the current list of Public Education and Public Involvement strategies will be incorporated into the proposed 2016 SWMPP.

### **4.3 Illicit Discharge Detection and Elimination**

#### 4.3.1 *Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on fourteen (14) Illicit Discharge Detection and Elimination strategies. A summary table identifying each Illicit Discharge Detection and Elimination strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix E**. Supporting documentation is attached to the summary table.

#### Legal Authority

An IDDE ordinance was developed during the 2013-2014 reporting period and was finalized during the 2014-2015 reporting period. City of Madison Ordinance Number 2015-037 was adopted on April 14, 2015 to amend Chapter 20 of the Code of Ordinances, City of Madison, Alabama by creating *Article VII. Municipal Separate Storm Sewer System*. The Ordinance prohibits illicit discharges and connections and provides the City with the ability to perform inspections, trace suspected illicit discharges, require elimination of confirmed illicit discharges, and compel compliance.

#### Field Assessment Activities

The outfalls identified within the City limits during the 2014-2015 reporting period were added to the City's GIS database. The MS4 map was updated to reflect the additional outfalls, the locations and name of waterbodies within the MS4, and the revised MS4 boundaries.



From May 2015 to August 2015, S&ME, Inc. performed stream-walking activities on 13.86 miles of waterbodies within the Madison City limits. A total of 102 outfalls were identified during the stream-walking activities.

The City receives as-built surveys of new developments and field-verifies each development's discharge points prior to acceptance into the City of Madison Maintenance Program.

Dry weather inspections were conducted at the 102 outfalls identified during the reporting period. Dry-weather flows were observed at eleven (11) of the inspected outfalls. S&ME personnel evaluated the physical indicators of each observed discharge and performed field screening. None of the screened flows were indicative of an illicit discharge and no samples were collected for laboratory analysis.

### **Illicit Discharge Investigation**

None of the 102 outfalls inspected during the reporting period were identified as having an obvious or suspect discharge, and no illicit discharge investigations were performed. The City evaluated the existing procedures for designating outfalls and investigating and eliminating illicit discharges, and began revisions to the existing policies for inclusion in the 2016 SWMPP.

Two (2) illicit discharges were reported to the City during the reporting period. One report, received May, 26, 2015 was handled by Madison Fire and Rescue, Huntsville Fire and Rescue HazMat Division, Madison Public Works, Madison Engineering Department, and the ADEM Regional Field Office. The second report, received on May 29, 2015 was handled by Madison Public Works and Madison Utilities.

### **Corrective Actions**

Two (2) illicit discharges were reported to the City during the reporting period. One report, received May 26, 2015, pertained to a diesel fuel spill from a truck saddle tank. An estimated 50 gallons of diesel fuel were released from the ruptured tank. The incident was handled by Madison Fire and Rescue, Huntsville Fire and Rescue HazMat Division, Madison Public Works Department, Madison Engineering Department, and the ADEM Regional Field Office. The second report, received on May 29, 2015, was determined to be caused by a malfunctioning lift station that caused a sanitary sewer overflow. The reported blue water was considered to be non-toxic and was handled by the Madison Public Works Department and Madison Utilities. Madison Utilities was responsible for reporting all required information to ADEM.

No illicit discharges from adjacent MS4s were identified during the reporting period, and ADEM was not contacted.

### **Public IDDE Education**

On September 2, 2009, the City's "Let Us Know" program was established. The program consists of a webpage and a hotline for residents to report complaints, including those for illicit discharges. The reporting system is linked from the main page of the City website and from the Storm Water Management Program webpage. During the reporting period, the City updated the Let Us Know webpage to include a specific category for storm water complaints. The City received one (1) storm water complaint via the Let Us Know system. The complaint pertained to drainage and was transferred to Public Works.



## **Municipal Employee Training**

IDDE awareness training was conducted on September 16, 2015. Forty-four (44) municipal employees participated, including representatives from the Engineering Department, the Building Department, the Planning Department, the Public Works Department, the Police Department, the Parks and Recreation Department, and the Fire Department, and two City Council members. The training included background information on the MS4 program, as well as information on common illicit discharges, how to identify illicit discharges, and where to report suspect discharges.

### *4.3.2 General Discussion*

As previously discussed, stream-walking activities were conducted during the reporting period for six (6) waterbodies within the Madison City limits. As a result of the stream-walking effort, 102 outfalls were identified and inspected. Eleven (11) of the inspected outfalls were observed to have dry-weather flows. None of the flows were determined to be suspect, and no samples were collected for laboratory analysis.

Thirteen (13) of the identified outfalls to Russell Branch are thought to be buried roof drains from residential properties. According to the Illicit Discharge Detection and Elimination Guidance Manual (Chapter 11, Table 32), outfalls that appear to be roof downspouts should be recorded only if the pipes are subsurface and the connection cannot be confirmed. All thirteen (13) outfalls were from subsurface pipes and none of the connections could be confirmed; therefore, all thirteen suspected downspouts were recorded as outfalls. The City intends to further investigate the thirteen (13) pipes to determine if they should be identified as outfalls.

### *4.3.3 Status*

The IDDE strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.3 of the Individual Phase II Permit.

The City is in the process of revising the Storm Water Management Program to reflect the changes in the Individual Phase II Permit.

### *4.3.4 Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the IDDE program objectives. The controls are adequate to prevent or correct illicit discharges to the Madison MS4.

### *4.3.5 Proposed Revisions*

Revisions to the current list of IDDE strategies will be incorporated into the proposed 2016 SWMPP.

## **4.4 Construction Site Storm Water Runoff Control**

### *4.4.1 Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on eleven (11) Construction Site Storm Water Runoff Control strategies. A summary table



identifying each Construction Site Storm Water Runoff Control strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix F**. Supporting documentation is attached to the summary table.

### Legal Authority

An Erosion and Sediment Control ordinance was developed during the 2013-2014 reporting period and was finalized during the 2014-2015 reporting period. City of Madison Ordinance Number 2015-038 was adopted on April 14, 2015 to amend Chapter 20 of the *Code of Ordinances, City of Madison, Alabama* by creating *Article VIII. Erosion and Sediment Control*. The ordinance establishes the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas* as the guidance document for BMPs, provides for inspections of construction sites, and identifies the steps the City may take to enforce the ordinance.

### Municipal Employee Training

Personnel tasked with conducting construction BMP inspections during the reporting period included Mr. Darryl Ahonen and Ms. Gina Romine. Mr. Ahonen completed online refresher courses on April 9, 10, and 13, 2015 to maintain his Qualified Credentialed Inspector (QCI) certification. Ms. Romine was certified as a QCI on November 11, 2014.

### Site Inspection

The Engineering Department continuously maintains an updated inventory of all active construction sites within the MS4 area. During the 2014-2015 reporting period, seventy-six (76) active construction sites were permitted under the ALR100000 Construction General Permit, seven (7) of which were City projects. Three (3) sites, CinePlanet15 (ALR10AP38), Rick's BBQ (ALR10AU49), and Merrill Gardens/Hospital Park, Lot 2 (ALR109807) were considered Priority Construction sites as defined by the Construction General Permit.

Construction storm water BMPs were observed at all seventy-six (76) ADEM-permitted non-priority construction sites during the reporting period. The observations were performed in conjunction with other routine construction inspections. A total of 3,443 construction site inspections were performed during the reporting period.

BMPs were observed at each of the three (3) Priority construction sites at least once per month. The observations were performed in conjunction with other routine construction inspections.

### Site Plan Review and Approval

Section 20-441 of Chapter 20, Article VIII requires construction sites greater than 10,000 square feet (0.23 acre) in size to provide an Erosion and Sediment Control Plan. During the reporting period, thirty-nine (39) Erosion and Sediment Control Plans were submitted to the City for review.



Erosion and Sediment Control Plans are reviewed based on the criteria established in the Zoning Ordinance and Subdivision Regulations, as well as the additional criteria established in the Erosion and Sediment Control Ordinance and the adopted Alabama ESC Handbook.

### **Public Complaints**

On September 2, 2009, the City's "Let Us Know" program was established. The program consists of a webpage and a hotline for residents to report complaints, including those for illicit discharges. The webpage is linked from the main page of the City website. During the reporting period, the City updated the Let Us Know webpage to include a specific category for storm water complaints.

The City received one (1) construction storm water complaint during the reporting period. The complaint pertained to debris from a construction site that was washed into a subdivision roadway during a storm. The City contacted the owner of the lot under construction and required them to apply for an NPDES permit and install appropriate BMPs.

### **Enforcement Actions and Tracking**

Following the adoption of the Erosion and Sediment Control Ordinance in April 2015, the City increased enforcement activity at construction sites within the MS4 boundary. The ordinance also requires that copies of the reports of monthly and post-rainfall BMP inspections required by the Alabama Construction General Permit be submitted to the ADEM Compliance Administrator. In June 2015, the City initiated an audit of all active construction projects to determine if the plans in use match the approved plans. Stop work orders were issued to four (4) non-compliant sites.

Due to limited staffing, records of the increased enforcement actions were maintained primarily through email. Individual compliance issues noted during BMP observations were typically discussed on-site and formal records of every verbal notification were able to be not maintained.

### **ADEM Notification**

The Individual Phase II Permit requires that the City notify ADEM of unpermitted construction sites; however, the City currently does not allow construction to proceed without an approved ADEM permit. During the reporting period, four (4) stop work orders were issued to qualifying construction sites that were identified as operating without an NPDES permit. All four (4) sites obtained coverage under the Alabama Construction General Permit and work was allowed to resume. No unpermitted sites were reported to ADEM; however, the ADEM Decatur Field Office was notified and approved the City's process to shut down construction activity.

The Erosion and Sediment Control ordinance developed during the 2013-2014 reporting period and finalized during the 2014-2015 reporting period provides the City with the authority to initiate enforcement actions against non-compliant construction sites. No construction sites refused to conform after being notified of impending enforcement actions by the City; therefore, no non-compliant sites were reported to ADEM.





#### 4.4.2 *General Discussion*

During the 2014-2015 reporting period, observations of construction storm water BMPs were made in conjunction with other routine construction inspections such as pre-construction meetings, general inspections, grading inspections, clearing/ grubbing inspections, utility work inspections, proof rolls, landscape inspections, drainage complaints, and neighborhood paving inspections. The results of the BMP observations are recorded in the same manner as all other construction inspections, unless deficiencies are found, which complicates the record-keeping process. The City intends to implement a BMP inspection form as part of the 2016 SWPPP to record inspections specific to sediment and erosion BMPs.

The City is also evaluating the development of a complaint tracking form separate from the QAlert system. This would enable the ADEM Compliance Administrator to more easily track enforcement actions specific to construction storm water.

To assist with BMP inspections, five (5) additional City employees attended QCI training on November 9, 2015 and November 17, 2015. These five (5) employees will notify the ADEM Compliance Administrator of deficiencies noted during routine building inspections or project inspections.

#### 4.4.3 *Status*

The Construction Site Storm Water Runoff strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.4 of the Individual Phase II Permit.

The City is in the process of revising the Storm Water Management Program to reflect the changes in the Individual Phase II Permit.

#### 4.4.4 *Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the Construction Site Storm Water Runoff program objectives. When fully implemented, the controls are adequate to monitor and control pollutants associated with land disturbing activities.

#### 4.4.5 *Proposed Revisions*

Revisions to the current list of Construction Site Storm Water Runoff strategies will be incorporated into the proposed 2016 SWPPP.

### 4.5 **Post-Construction Storm Water Management**

#### 4.5.1 *Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on eleven (11) Post-Construction Storm Water Management strategies. A summary table identifying each Post-Construction Storm Water Management strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix G**. Supporting documentation is attached to the summary table.



## Legal Authority

During the reporting period, the City began the development and implementation of a Post-Construction Storm Water management Program.

The City currently regulates post-construction runoff using the development review process. During the reporting period, the City implemented the new requirement that a 1.14 inch rainfall over a 24-hour period, preceded by a 72-hour antecedent dry period, be the basis for the design and implementation of post-construction BMPs for new development. A draft of the revised design standards were distributed to contractors, engineers, developers, and other stakeholders on June 23, 2015 in a document titled, *Design Standards: Proposed Stormwater Detention/Retention*.

During the reporting period, the City adopted the most recent version of the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas* (Alabama ESC Handbook). The City also specifically references the *Low Impact Development Handbook for the State of Alabama* in the draft Design Standards for Proposed Stormwater Detention/Retention, dated June 22, 2015. The City is considering Low Impact Design on Capital Improvements project designs and will be incorporating LID standards in the revised City standard details.

## Plan Review and Oversight

The submittal of site development plans is required by the City of Madison Zoning Ordinance, updated in September 2014, and the Subdivision Regulations, dated June 2006. During the reporting period, thirty-nine (39) site development plans were reviewed by the Technical Review Committee or the Planning Commission.

Chapter 28, Article IV of the City of Madison Code of Ordinances establishes a Technical Review Committee co-chaired by the City Engineer and the Director of Community Development. The Technical Review Committee is empowered to make recommendations to land development applicants on how to correct errors in proposed developments plans, improve the design of proposed developments, and ensure that all requirements of the city's applicable laws and regulations are applied to all proposed land developments for which the Planning Commission is the permitting authority. Plan review criteria are established in the Zoning Ordinance, Subdivision Regulations, Construction Specifications Manual, the Alabama ESC Handbook, and the Design Standards for Proposed Stormwater Detention/Retention.

## Inspection of Post-Construction BMPs

During the reporting period, the City maintained an inventory of Post-Construction BMPs within the City limits.

To demonstrate and document that new or newly-modified post-construction BMPs were installed per their approved design specifications, the City conducts final inspections of each BMP. During the reporting period, new detention ponds were completed at Rickwood Village Park, The Pines, and Hilltop Ridge, and final inspections were conducted. The Stone Brook and Burgreen Farms ponds became operational during the reporting period and were also inspected, although the ponds were not completed prior to September 30, 2015. Modifications to the Whitworth and Biltmore ponds were completed during the reporting period and final inspections of the modifications were conducted.



To ensure the long-term operation and maintenance of existing post-construction BMPs, the City performs periodic inspections of City-managed BMPs. During the reporting period, inspections were performed on three (3) City-owned ponds to confirm that the post-construction BMPs were functioning as designed.

### **Long-Term Operation and Maintenance**

Part II.B.5.4 of the Individual Phase II Permit states that the City must require adequate long-term operation and maintenance of BMPs. The City plans to include a long-term maintenance requirement in the Post-Construction Storm Water Management Ordinance which will be developed and adopted prior to May 2017. During the 2014-2015 reporting period, the City identified potential obstacles and legal issues that will need to be addressed prior to development of the post-construction ordinance.

Part II.B.5.5 of the Individual Phase II Permit states that the City must maintain or require the developer, owner, or operator to maintain records of post-construction inspections and maintenance activities. During the reporting period, the City maintained records of the post-construction BMP inspections performed. No BMPs were identified as needing maintenance and no corrective actions were performed.

#### *4.5.2 General Discussion*

The City's existing post-construction storm water management program is largely regulated and enforced under the Zoning Ordinance and Subdivision Regulations. The City intends to develop a Post-Construction Storm Water Management Ordinance to consolidate and clarify post-construction BMP requirements. The ordinance will be implemented by May 2017, the date required by the Individual Phase II Permit.

As of the date of this report, the City has implemented a Storm Water User Fee 5 Year Plan to retrofit existing structures or begin new projects that will meet the new post-construction criteria. The 5 Year Plan was presented to the City Council during adoption of the FY2016 budget and includes specific outlays for water quality improvement projects across the MS4 area. The projects were selected based on expected impact and available funding.

#### *4.5.3 Status*

The Post-Construction Storm Water Management strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.5 of the Individual Phase II Permit.

The City is in the process of revising the Storm Water Management Program to reflect the changes in the Individual Phase II Permit.

#### *4.5.4 Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the current Post-Construction Storm Water Management program objectives. When fully implemented, the controls are adequate to address post-construction storm water runoff from new development and re-development within the Madison MS4.



#### 4.5.5 *Proposed Revisions*

Revisions to the current list of Post-Construction Storm Water Management strategies will be incorporated into the proposed 2016 SWMPP.

### 4.6 **Pollution Prevention/Good Housekeeping for Municipal Operations**

#### 4.6.1 *Activities Completed / In Progress*

During the October 1, 2014 to September 30, 2015 reporting period, the City of Madison accomplished or began work on nine (9) Municipal Pollution Prevention and Good Housekeeping strategies. A summary table identifying each Municipal Pollution Prevention and Good Housekeeping strategy planned for the 2014-2015 reporting period, a description of actions taken by the City of Madison, and a brief description of activities planned for the next reporting period is provided in **Appendix H**. Supporting documentation is attached to the summary table.

#### Municipal Facilities

The City maintains an inventory of all municipal facilities, including municipal facilities that have the potential to discharge pollutants via storm water runoff. During the reporting period, twelve (12) municipal facilities were identified on the inventory.

#### Pollution Prevention

To reduce the amount of litter, floatables, and debris entering the MS4 from municipal operations, the City contracted Sweeping Corporation of America to provide street sweeping services following storm events. Street sweeping was accomplished following the January 5, February 16, February 20, and March 5 winter storm events and tracked by the Public Works Department and the ADEM Compliance Administrator. Approximately 42 tons of sand, gravel, and salt mix used to prepare roads during winter weather were removed by street sweeping following the storm events.

To remove and dispose of litter, floatables, and debris material entering the MS4, the City evaluated and selected BMPs for ponds, inlets, and/or culverts within the MS4. A trash rack was installed at The Pines, a City-owned detention pond project, in September 2015. A trash rack was also installed, at the City's recommendation, in the Burgreen Farms subdivision pond. The Public Works Department is responsible for collection and disposal of the removed waste.

#### Standard Operating Procedures

The Individual Phase II Permit requires that the City develop Standard Operating Procedures (SOPs) detailing good housekeeping practices for appropriate municipal facilities or municipal operations. During the reporting period, the City identified municipal operations that have the potential to discharge pollutants. The City plans to develop SOPs for the identified operations by September 30, 2017.

Pesticide, Herbicide, and Fertilizer (PHF) application within the City of Madison is currently performed by the Public Works Department under NPDES General Permit ALG870034. A Pesticide Discharge Management Plan (PDMP) is currently in place and was updated in September of 2014. Standard



Operating Procedures for PHF application, storage, disposal, and equipment maintenance are included in the existing PDMP. During the reporting period, the Public Works Department continued to implement the PDMP.

### Inspection Program

During the reporting period, all twelve (12) municipal facilities were inspected for good housekeeping practices. The inspections were recorded on the Site Evaluation Form provided in the 2014 SWMPP.

### Employee Training

Municipal Pollution Prevention training was conducted on September 16, 2015. Forty-four (44) municipal employees participated, including representatives from the Engineering Department, the Public Works Department, the Police Department, the Parks and Recreation Department, and the Fire Department. The training included good housekeeping practices, spill prevention, fuel storage, used oil management, equipment storage, vehicle washing, and spill clean-up.

### Water Quality Impacts

The City developed a Storm Water User Fee 5 Year Plan during the reporting period to identify projects that could potentially benefit water quality. The 5 Year Plan was presented to the City Council during adoption of the FY2016 budget and includes specific outlays for water quality improvement projects across the MS4 area.

During the reporting period, the City assessed water quality impacts for at least nine (9) flood management projects owned, operated, or managed by the City. At least nine (9) existing structural controls were evaluated to determine the feasibility of retro-fitting to provide additional pollutant removal from storm water.

#### *4.6.2 General Discussion*

The municipal facility inspections conducted during the reporting period assisted the City in identifying which facilities have the potential to discharge pollutants. The primary concerns are vehicle washing, equipment storage, used oil management, and chemical storage. The City plans to develop SOPs or BMP Plans for the Fire, Public Works, and Parks and Recreation departments by September 30, 2016.

The street sweeping implemented during the 2014-2015 reporting period resulted in the collection of approximately 42 tons of sand, gravel, and salt mix used to prepare roads during winter weather events. For the 2015-2016 reporting period, the City will implement a year-round street sweeping program on residential and collector streets. The street sweeping program was identified in the Storm water User Fee 5 Year Plan.

#### *4.6.3 Status*

The Municipal Pollution Prevention and Good Housekeeping strategies implemented during the 2014-2015 reporting period are in compliance with Part II.B.6 of the Individual Phase II Permit.



The City is in the process of revising the Storm Water Management Program to reflect the changes in the Individual Phase II Permit.

#### *4.6.4 Assessment of Controls*

The controls enacted during the reporting period appear to be effective in meeting the Municipal Pollution Prevention and Good Housekeeping program objectives. When fully implemented, the controls are adequate to address storm water pollution prevention from municipal operations.

#### *4.6.5 Proposed Revisions*

Revisions to the current list of Municipal Pollution Prevention and Good Housekeeping strategies will be incorporated into the proposed 2016 SWMPP.

## **5.0 SWMPP Implementation Status and Proposed Changes**

The priorities of the Individual Phase II Permit differ from those of the Individual Phase I Permit under which the Madison MS4 previously operated. In particular, the Individual Phase II Permit emphasizes the importance of public education and post-construction BMPs.

The City of Madison is currently revising the Storm Water Management Program to address the requirements of the Individual Phase II Permit. During the 2014-2015 reporting period, the City contracted S&ME to assist with the preparation of the new Storm Water Management Program Plan. S&ME has worked closely with the ADEM Compliance Administrator and the City Engineer to develop an effective, practicable program for the management of storm water within the Madison MS4.

The City has established a Storm water User Fee Fund for the 2016 fiscal year that reflects the priorities of the Individual Phase II Permit. In a change from previous reporting periods, the FY2016 budget specifically includes funding for Public Education and Outreach, with outlays for the Madison County Drinking Water Festival, the Madison Street Festival, the Madison Chamber Business Expo, the Water Wheels educational trailer, and informational signage. The budget also increased the funding available for water quality improvement projects. The increased budgets demonstrate a clear commitment to the successful implementation of the new permit requirements and the revised SWMPP, once completed.

## **6.0 Summary of Inspections and Enforcement Actions**

### **6.1 Inspections**

- 102 outfalls were identified and inspected during the reporting period.
- Eleven (11) dry-weather flows were screened and determined to have no indicators of illicit discharges.
- 3,443 construction inspections were conducted. BMPs were observed during each construction inspection.



- BMPs were observed at three (3) Priority Sites a minimum of once per month.
- Final inspections were conducted for seven (7) projects to determine they had been constructed per the approved plans. Two (2) were new ponds, two (2) were new ponds that were operational but not completed, and two (2) projects were modifications to existing ponds.
- Three (3) existing detention ponds were inspected to determine they were functioning properly.
- Twelve (12) municipal facilities were inspected for good housekeeping practices.

## **6.2 Enforcement Actions**

- Two (2) emails were sent by the City Engineer to local engineers, developers, and contractors to reiterate the requirements of the Erosion and Sediment Control Ordinance.
- In June 2015, the City initiated an audit of all active construction sites.
- Three (3) litter enforcement actions were taken.
- Four (4) Stop Work Orders were issued to qualifying construction sites operating without NPDES construction permits.

## **6.3 Corrective Actions**

- Two (2) illicit discharges were reported and managed by Madison Utilities and Huntsville Fire and Rescue. One report, received May 26, 2015, pertained to a 50-gallon diesel fuel spill and was managed by Madison Fire and Rescue, Huntsville Fire and Rescue HazMat Division, Madison Public Works, Madison Engineering Department, and the ADEM Regional Field Office. The second report, received on May 29, 2015, was determined to be a non-toxic blue dye from an industrial facility, released during a Sanitary Sewer Overflow, and was handled by Madison Public Works Department and Madison Utilities.
- Each of the four (4) construction sites issued stop work orders obtained NPDES permit coverage and no additional enforcement measures were required.
- The City received one (1) construction storm water complaint during the reporting period. The complaint pertained to debris from a construction site that was washed into a subdivision roadway during a storm. The City contacted the owner of the lot under construction and issued a Stop Work Order. To resume work, the City required that the owner apply for an NPDES permit and install appropriate BMPs.



## 7.0 Public Education Program Implementation Status

During the 2014-2015 reporting period, the City of Madison significantly increased the number of Public Education activities in which the City participated, as well as the funding for Public Education efforts.

The current status of the Public Education Program is as follows:

- The City has developed a storm water webpage for the purpose of disseminating information on the City's Storm Water Management Program. The webpage provides information on the Storm Water User Fee and provides access to the Storm Water Management Program Plan, the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, and the most recent Annual Report.
- The City is continuing to educate engineers, contractors, and developers through increased construction storm water enforcement, including audits of active sites by the ADEM Compliance Administrator.
- The City recently performed storm water outreach at the annual Madison Street Festival for the first time in the festival's history. The 2015 festival was held on October 3, 2015. The ADEM Compliance Administrator, City Engineer, and other City personnel distributed approximately 800 reusable bags filled with storm water educational information and color-changing cups branded with the Madison storm water logo. The City is planning to participate in the 2016 Madison Street Festival.
- The City is planning to sponsor the 2016 Madison County Drinking Water Festival. The festival is scheduled to be held May 12-13, 2016 on the campus of the University of Alabama in Huntsville. The City is also planning to provide one or more volunteers to assist at the festival.
- The City has expanded the amount of educational material distributed and improved the quality of the publications. The City is maintaining the brochure racks installed during the 2014-2015 reporting period by periodically replenishing the educational materials.
- The City is continuing to promote the Adopt-a-Mile program managed by the Madison Beautification and Tree Board.
- The City is continuing to promote the hazardous materials collection and curbside recycling programs managed by the Huntsville Solid Waste Disposal Authority.





## 8.0 Fiscal Analysis

### 8.1 Budgets

For the 2015 Fiscal Year, the City of Madison budgeted \$117,500 for the implementation of the storm water program, an increase of \$112,500 over the previous fiscal year.

**Table 8-1 FY2015 Storm Water Program Budget**

Expenditure	Amount
Annual Reporting, SWMPP, Ordinances (Consultant Fees)	\$45,000
Roadway Maintenance (Street Sweeping)	\$25,000
Flood Improvement Projects	\$27,500
Modification of Detention Ponds	\$20,000
<b>Total FY2015 MS4 Storm Water Budget</b>	<b>\$117,500</b>

For the 2016 Fiscal Year, the City's budget is \$299,000 for the implementation of the storm water program, an increase of \$181,500 over FY2015.

**Table 8-2 FY2016 Storm Water Program Budget**

Expenditure	Amount
Annual Reporting Requirements	\$31,000
Illicit Discharge and Detection Elimination	\$50,000
Pollution Prevention/ Good Housekeeping for Municipal Operations	\$128,600
Public Education & Involvement	\$7,300
Water Quality Improvements	\$44,160
County Administration Fees	\$2,990
Department of Revenue / ADEM to Administer Program	\$14,950
Yearly Contingency for Environmental Emergencies	\$20,000
<b>Total FY2016 MS4 Storm Water Budget</b>	<b>\$299,000</b>

As previously discussed, the 2016 Fiscal Year budget includes funding for Public Education and Outreach, with specific outlays for the Madison County Drinking Water Festival, the Madison Street Festival, the Madison Chamber Business Expo, the Water Wheels educational trailer, and informational signage. This is the first year that public education has been specifically included in the budget. The total amount



allocated to public education alone in FY2016 exceeds the amount allocated to the entire storm water program in FY2014.

The FY2016 budget also includes additional funding for preparation of the Phase II SWMPP, further ORI activities, stream maintenance, flood studies, a street sweeping program including street sweeping for storm and event cleanup, and modifications to two detention ponds.

## **8.2 Funding Sources**

The Madison MS4 Storm Water Program is now funded by the Storm Water User Fee implemented in November 2015. Ordinance 2014-213 was developed during the 2013-2014 reporting period and adopted on October 30, 2014, during the 2014-2015 reporting period. The ordinance created both the Storm Water User Fee structure and the Storm Water Fund. The Storm Water User Fee was established to provide a funding mechanism to aid the City of Madison in meeting the financial obligations imposed by the MS4 Permit, an unfunded mandate. The revenues from the Storm Water User Fee are held in trust and expended in strict accordance with the provisions stipulated in Chapter 89C of Title 11, *Code of Alabama*.


The total expected revenue from the Storm Water User Fee during FY2016 is \$299,000. The City began receiving revenue from the Storm Water User Fee in November 2015.

As described previously, the Madison Storm Water Program is a partnership that involves multiple City departments. Other departments, such as Fire, Police, Public Works, Building, and Parks and Recreation, maintain their own budgets and funding sources. The Storm Water Program partners with these departments and includes some routine operations towards compliance with the MS4 permit; however, certain activities directly related to storm water may be funded by the Storm Water Fund in order to maintain compliance with the Individual Phase II Permit to the MEP.



## 9.0 Agency Certification

I certify under penalty of law that this Annual Report and all attachments pertaining to the City of Madison 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.

  
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Troy Trulock, Mayor  
City of Madison, Alabama

1/27/2016  
Date