

# 2016-2017 Annual Report



City of Madison

Individual Phase II MS4

NPDES Permit No. ALS000014



**Madison MS4  
2016-2017 Annual Report  
City of Madison, Alabama  
NPDES Permit No. ALS000014**



**City of Madison  
100 Hughes Road  
Madison, Alabama 35758**

**January 29, 2018**



## Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Madison MS4 Area .....	1
1.2	Hydrologic Units in the MS4 Area .....	1
1.3	Water Quality Concerns.....	2
1.4	Annual Report Components.....	2
<b>2.0</b>	<b>Contacts List.....</b>	<b>3</b>
<b>3.0</b>	<b>Program Evaluation.....</b>	<b>4</b>
3.1	Major Findings .....	4
3.2	Major Accomplishments .....	4
3.3	Overall Program Strengths / Weaknesses.....	7
3.4	Future Direction of the Program.....	8
<b>4.0</b>	<b>Narrative Report .....</b>	<b>8</b>
4.1	Storm Water Collection System Operations .....	8
4.1.1	<i>Activities Completed / In Progress .....</i>	<i>8</i>
4.1.2	<i>General Discussion.....</i>	<i>10</i>
4.1.3	<i>Status.....</i>	<i>10</i>
4.1.4	<i>Assessment of Controls .....</i>	<i>10</i>
4.1.5	<i>Proposed Revisions .....</i>	<i>10</i>
4.2	Public Education and Public Involvement .....	11
4.2.1	<i>Activities Completed / In Progress .....</i>	<i>11</i>
4.2.2	<i>General Discussion.....</i>	<i>13</i>
4.2.3	<i>Status.....</i>	<i>14</i>
4.2.4	<i>Assessment of Controls .....</i>	<i>14</i>
4.2.5	<i>Proposed Revisions .....</i>	<i>14</i>
4.3	Illicit Discharge Detection and Elimination.....	15
4.3.1	<i>Activities Completed / In Progress .....</i>	<i>15</i>
4.3.2	<i>General Discussion.....</i>	<i>16</i>
4.3.3	<i>Status.....</i>	<i>16</i>



---

4.3.4	<i>Assessment of Controls</i> .....	17
4.3.5	<i>Proposed Revisions</i> .....	17
4.4	<b>Construction Site Storm Water Runoff Control</b> .....	17
4.4.1	<i>Activities Completed / In Progress</i> .....	17
4.4.2	<i>General Discussion</i> .....	19
4.4.3	<i>Status</i> .....	19
4.4.4	<i>Assessment of Controls</i> .....	19
4.4.5	<i>Proposed Revisions</i> .....	20
4.5	<b>Post-Construction Storm Water Management</b> .....	20
4.5.1	<i>Activities Completed / In Progress</i> .....	20
4.5.2	<i>General Discussion</i> .....	21
4.5.3	<i>Status</i> .....	22
4.5.4	<i>Assessment of Controls</i> .....	22
4.5.5	<i>Proposed Revisions</i> .....	22
4.6	<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b> .....	22
4.6.1	<i>Activities Completed / In Progress</i> .....	22
4.6.2	<i>General Discussion</i> .....	24
4.6.3	<i>Status</i> .....	24
4.6.4	<i>Assessment of Controls</i> .....	24
4.6.5	<i>Proposed Revisions</i> .....	24
<b>5.0</b>	<b>SWMPP Implementation Status and Proposed Changes</b> .....	<b>25</b>
<b>6.0</b>	<b>Summary of Inspections and Enforcement Actions</b> .....	<b>25</b>
6.1	Inspections .....	25
6.2	Enforcement Actions .....	25
6.3	Corrective Actions .....	26
<b>7.0</b>	<b>Public Education Program Implementation Status</b> .....	<b>26</b>
<b>8.0</b>	<b>Fiscal Analysis</b> .....	<b>27</b>
8.1	Budgets.....	27
8.2	Funding Sources.....	28
<b>9.0</b>	<b>Agency Certification</b> .....	<b>29</b>



## List of Tables

Table 1-1 Hydrologic Hierarchy .....	1
Table 1-2 Watersheds in the MS4 Area .....	1
Table 1-3 Subwatersheds in the MS4 Area .....	2
Table 8-1 FY2017 Storm Water Program Budget .....	27
Table 8-2 FY2018 Storm Water Program Budget .....	28

## Appendices

Appendix A	– Figures
Appendix B	– Permit Documentation
Appendix C	– Storm Water Collection System Operations
Appendix D	– Public Education and Public Involvement
Appendix E	– Illicit Discharge Detection and Elimination
Appendix F	– Construction Site Storm Water Runoff and Control
Appendix G	– Post-Construction Storm Water Management
Appendix H	– Pollution Prevention and Good Housekeeping for Municipal Operations



## 1.0 Introduction

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 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.

### 1.2 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**.

### 1.3 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**.

### 1.4 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, 2016 through September 30, 2017 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 2017 fiscal year and the 2018 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 2016-2017 Annual Report:

**Ms. Gina Romine**

ADEM Compliance Administrator  
City of Madison  
100 Hughes Road  
Madison, AL 35758  
256-772-5672  
gina.romine@madisonal.gov

**Mr. Gary Chynoweth, P.E.**

Director of Engineering  
City of Madison  
100 Hughes Road  
Madison, AL 35758  
gary.chynoweth@madisonal.gov

Questions concerning the 2016-2017 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 or 2016 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.

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 2016-2017 reporting period to strengthen, organize, and consolidate the Storm Water Management Program.

#### 1. Maintained 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 levies 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 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 revenue from the User Fee for FY2017 was approximately \$309,000, and a portion of the revenues collected are credited to ADEM.

#### 2. 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



FY2017 Annual Operating Budget included the adoption of the FY2017 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.

### **3. Submitted Standard Operating Procedures for Good Housekeeping Practices**

The City submitted to ADEM in September 2017 Standard Operating Procedures for Good Housekeeping Practices for municipal facilities. The revised Storm Water Management Program Plan stated that the City would submit the SOP's by September 30, 2017.

### **4. 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. The City does not approve plans without applicable permits and continues to monitor all active construction projects to determine if the plans in use at each site matched the plans approved by the City.

### **5. Third year of stream-walking program**

The City of Madison contracted S&ME, Inc. to conduct stream-walking activities on 17.80 miles of streams within the City limits. 252 outfalls were identified during the 2016-2017 reporting period and 17 dry weather flows were observed and screened. No illicit discharges were observed and no samples were collected.

### **6. Maintained a Storm Water Management Program webpage**

During the 2016-2017 reporting period, the City maintained 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 2016 SWMPP, the 2013-2014 Annual Report, the 2014-2015 Annual Report, 2015-2016 Annual Report, all storm water related ordinances, recycling information, hazardous waste materials disposal information, a link to the ADEM website, the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, a link to the EPA website, a link to the Solid Waste Disposal Authority website, and the Let Us Know reporting system.

### **7. Participated in the 2017 Madison County Drinking Water Festival**

The Madison County Drinking Water Festival was held May 10-11, 2017 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, served on the Advisory Committee. 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 2017 festival hosted 17 schools and more than 1,450 fourth graders from Huntsville City Schools, Madison County Schools, and Madison City Schools.



**8. Hired a Hydraulic/Environmental Engineer**

During the 2016-2017 reporting period the City of Madison hired Mr. Eduard Morgan, a Hydraulic/Environmental Engineer, to model detention basins within the City of Madison to improve hydraulic and water quality discharge performance. Mr. Morgan began analyzing information to establish floodplains and modifications that may reduce the FEMA-established floodplains.

**9. Conducted municipal IDDE training**

Thirty-two (32) municipal employees participated in the IDDE awareness training conducted on September 27, 2017. The attendees included representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, and the Parks and Recreation Department. The training included background information on the MS4 program, municipal good housekeeping, as well as information on common illicit discharges, how to identify illicit discharges, and where to report suspect discharges.

**10. Continued to implement flood and water quality improvement projects**

The City of Madison remained active in flood control and water quality improvement projects. During the 2016-2017 reporting period, the City completed The Bradford Creek Trailhead retention pond and the Palmer Park Greenway which provides post-development control for Dublin Farms Subdivision. The Bradford Creek Trailhead retention pond converted 45 acres of post-developed land to pre-developed hydrology for the 1.14" 24 hour rain fall.

**Table 3-1 Accumulative Accomplishments Since 2013**

Total post development land converted to pre-development hydrology	723 acres
Total new development meeting pre-development hydrology	475 acres
Total area removed from floodplain	120 acres
Total area to revert to wetland conditions	8.30 acres
Total area filtered from floating debris	726 acres



### 3.3 Overall Program Strengths / Weaknesses

The City of Madison Storm Water Management Program is considerably stronger and more effective following the 2016-2017 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 2015-2016 reporting period is updated annually and details the planned expenditures for the Storm Water User Fee Fund.

The second 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 City is also proactively modifying existing detention structures and constructing new detention structures in post developed areas to reduce storm water peak discharge and convert post developed areas to mimic pre-development hydrology. To date, over one square mile of post developed area has been converted to mimic pre-development hydrology.

A third strength of the program is the increased public education efforts. During the 2016-2017 reporting period, the City maintained a Storm Water Management Program Webpage, sponsored and served on the Advisory Committee for the 2017 Drinking Water Festival, promoted the new water quality logo, and distributed over 1,000 promotional items and/or educational materials during the 2016 Madison Street Festival on October 1, 2016. The City also participated in the City of Madison Chamber of Commerce Business Expo and Kid's Day for the second time and distributed approximately 500 storm water promotional items during the event held on July 27, 2017.

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 2018-2019 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:

- Continue implementation if the revised Storm Water Management Program Plan
- Continue implementation of the Storm Water User Fee 5 Year Plan
- Continue development of 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
- Submit drainage analysis to FEMA for floodplain map revisions

## 4.0 Narrative Report

### 4.1 Storm Water Collection System Operations

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

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

#### Trash Removal

During the reporting period, the City evaluated various methods of direct removal of trash from waterbodies within the MS4. The City will continue to consider partnering with local civic groups to conduct stream cleanup events for direct trash removal from the MS4. Local chapters of the Boy Scouts of America and the citizens group, Just Serve were identified as potential partners, and discussions were held with various troop leaders. Communication will be continued during the 2017-2018 reporting period.

During the 2016-2017 reporting period, the City evaluated and selected BMPs to accomplish the direct removal of trash from ponds, inlets, and/or culverts within the MS4. One Super Swamp Boom was installed in June 2017 at the YMCA. A trash rack was purchased in September 2017 for installation in October 2017 at Sullivan Street crossing of the Garner Street Drainage Basin and it filters the 440 acre drainage basin from floatables and debris prior to entry into Bradford Creek. Additional trash removal BMPs will be installed during the 2017-2018 reporting period at other locations within the MS4 with priority given to known flooding locations.



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 2,024 bags (39 gallons each) were collected by the landscape contractor during the reporting period, 132 gallons of trash was collected by Tidewater Landscaping and Intergraph reported removing 3,473 gallons of trash from the spillway at their location on Graphics Drive.

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 and glass recycling sites. Waste receptacles were maintained in public areas such as City-owned parks, greenways, and the Village Green in downtown Madison. In August 2017, Middle school students worked with the City to establish a Bottle Cap Recycling Program.

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, eleven (11) litter enforcement actions were taken.

Trash prevention was also accomplished by increasing inspections of construction sites. During the reporting period, 5,403 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 2016 Madison Street Festival. Drain bags were placed September 30, 2016 for use during the festival held on October 1, 2016.

Additional trash receptacles were provided by the Parks and Recreation Department for all City managed events. A total of ten (10) events were held during the 2016-2017 reporting period and trash removal was performed immediately following the events.

### **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 was currently providing litter collection information to the ADEM Compliance Administrator for inclusion in the Annual Report, the reporting requirements were not included in the City Landscape Maintenance Contract. The City included requirements for the removal of trash and the reporting of trash collection in the Bid Specifications for the City Landscape Maintenance Contract during the 2015-2016 reporting period with the option to extend the Agreement for two (2) additional one (1) year periods, not to exceed three (3) years total.

During the reporting period, the City issued seven (7) Special Events Permits, two (2) Parade Permits, and three (3) 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 2017-2018 reporting period to include a requirement for temporary protection of catch basins where feasible.

The twelve (12) 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 2017-2018 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 2016-2017 reporting period are in compliance with Part II.B.1 of the Individual Phase II Permit.

The City revised the Storm Water Management Program to reflect the changes in the Phase II permit during the 2016-2017 reporting period.

#### *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 were incorporated into the proposed 2017 SWMPP.



## 4.2 Public Education and Public Involvement

### 4.2.1 *Activities Completed / In Progress*

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

#### Public Input

A Storm Water Management Program Webpage was maintained during the 2016-2017 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 links to the Individual Phase II NPDES Permit, the 2016 SWMPP, the 2013-2014 Annual Report, 2014-2015, all storm water related ordinances, recycling information, hazardous waste materials disposal information, a link to the ADEM website, the Water Quality Improvement Plan Map, a link to the EPA website, a link to the Solid Waste Disposal Authority website, and the Let Us Know reporting system. Two hundred thirty six (236) hits were recorded on the webpage during the 2016-2017 reporting period. There were two hundred thirty two (232) hits on the webpage during the 2015-2016 reporting period; this is an increase of 27% from the previous reporting period.

By posting the 2016 proposed SWMPP and the 2015-2016 Annual Report on the Storm Water Management Program Webpage, the City is inviting citizens to review the documents and submit comments. The revised 2016 SWMPP and Annual Reports were made available for public comment and remains on the Storm Water Webpage.

#### 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. Storm drain markers were purchased during the 2015-2016 reporting period to be placed at inlets. Various civic organizations have been approached regarding the installation of storm drain markers.

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 The Beautification Board participated in the Chamber of Commerce Expo in July 2017 and provided information on the Adopt-a-Mile program.

The City currently provides for the weekly pickup of yard waste as a measure to prevent the deposition of yard debris in the MS4. The weekly pickup of yard waste was contracted out to Republic Services. A total of 8,698.75 tons of debris was collected during the reporting period.



## **Education on Pollution Reduction**

During the reporting period, fourteen (14) 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 and maintained during the 2016-2017 reporting period. Educational materials were also placed at Public Works and within the Engineering Department. Additional storm water information was included on the Storm Water webpage.

The City also continued to promote their storm water awareness logo on promotional materials and handouts. During the 2016-2017 reporting period, approximately 1,500 items including: reusable shopping bags filled with storm water educational materials, reusable cups for children, and hacky sacks that were branded with the logo were distributed at the 2016 Madison Street Festival, The Madison Chamber Business Expo and Kid's Day, the Drug Take Back, and were provided for the 2017 Take Your Child to Work Day. The bags were filled with storm water and flood-related educational materials provided by ADEM, EPA, and FEMA. During July 2017, 2,600 water drop stress balls were ordered with the storm water logo for the July 29, 2017 Madison Chamber Business and Kid's Expo and the October 7, 2017 Madison Street Festival. The stress balls will also be used for other events that will take place during the 2017-2018 reporting period.

The City is currently working to educate engineers, developers, and contractors through plan review and permitting of new construction and development. During the 2016-2017 reporting period, forty-four (44) 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 2017 Madison County Drinking Water Festival was held May 10-11, 2017 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, served on the advisory committee. The 2017 festival hosted more than 1,450 fourth graders from Huntsville City Schools, Madison County Schools, and Madison City Schools.

Following the 2017 event, the City committed to supporting the 2018 Madison County Drinking Water Festival, planned for May 2018. The ADEM Compliance Administrator continued to serve on the Festival Advisory Committee.

During the reporting period, the City maintained the fifty-eight (58) existing pet waste stations at City and neighborhood parks.

## **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 and Storm Water webpages. 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 and Storm water webpages. 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. Eight (8) complaints were received and either transferred to the appropriate department or resolved.

The Madison Police Department held two (2) drug take back event during the reporting period. The events were held on October 22, 2016 and April 29, 2017 and collected approximately 780 pounds of used or expired medications. During the events bags with recycling and hazardous waste disposal information was distributed along with other storm water promotional materials to the public.

### **Program Evaluation**

During the 2016-2017 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 maintained a Public Education budget for the 2016-2017 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, Madison Chamber Business Expo and Kid's Day, the Madison Street Festival and various other events.

#### *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 2016-2017 reporting period was the second year the City targeted the Madison Chamber Business Expo and Kid's Day for promoting storm water awareness. The Business Expo and Kid's Day was also selected because it is a large annual event in Madison that is held in a relatively small area. The attendance during the 2016 Madison Street Festival was estimated at 30,000. Due to the expected attendance and the location, both the Festival and the Expo 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 and purchased over 3,000 items for distribution at the Festival and the Expo. Some bags were filled with storm water and flood-related educational materials including information on pollution prevention and good housekeeping for residences and businesses. Other items simply promoted the City of Madison Storm Water awareness logo that included a link to the Storm Water webpage where various educational information can be found. The City also gave out color-changing cups with the storm water awareness logo, storm water activity books and crayons, hacky sacks and the EPA "After the Storm" brochures at the Street Festival and the Business Expo. The 2016 Madison Street Festival was held on October 1, 2016, and the Madison Chamber Business Expo and Kid's Day was held on



July 29, 2017, during the 2016-2017 reporting period.

The 2016-2017 reporting period was the third year during which the City participated in the Madison County Drinking Water Festival. The Drinking Water Festival provides an opportunity to reach over 1,400 students and partner with other stakeholder organizations.

The 2016-2017 reporting period was the first year during which the City participated in the Qualified Credential Professional Training. The City of Madison was one of the host cities for the event.

To provide additional opportunities for public involvement, the City worked with the citizens group Just Serve to organize the planting of 1,600 wetland trees in 2.00 acres of detention ponds on Garner Street. The trees were purchased during the 2016-2017 reporting period and in November 2017 volunteers planted the trees. The City has also spoke with The Boy Scouts and Just Serve regarding the installation of storm drain markers in various areas throughout the City. The City will continue this effort in order to get the storm drain markers purchased during the 2015-2016 reporting period installed. The City has also posted the revised SWMPP on the Storm Water Management Program Webpage pending its approval by ADEM and adoption by the City. A link was added to the webpage for citizens to comment on the revised SWMPP prior to submittal to ADEM.

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 2016-2017 reporting period are in compliance with Part II.B.2 of the Individual Phase II Permit.

The City has revised 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 were incorporated into the proposed 2017 SWMPP.



## 4.3 Illicit Discharge Detection and Elimination

### 4.3.1 Activities Completed / In Progress

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

### 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 2016-2017 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 January 2017 to September 2017, S&ME, Inc. performed stream-walking activities on 17.80 miles of waterbodies within the Madison City limits. A total of 252 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 252 outfalls identified during the reporting period. Dry-weather flows were observed at seventeen (17) 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 252 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 included revisions to the existing policies in the 2017 SWMPP.



Three (3) illicit discharges were reported to the City during the reporting period and were handled by Gary Chynoweth, City Engineer and Gina Romine, ADEM Compliance Administrator.

### Corrective Actions

Three (3) illicit discharges were reported to the City during the reporting period. One report, received May 22, 2017, pertained to a swimming pool discharge and a filter system was installed to dechlorinate the water during the back wash process to alleviate the problem. The second report, received July 7, 2017 was regarding paint in the storm drain. The paint was dry upon inspection and it did not appear to enter the storm box itself. The third report, received September 6, 2017 was in regards to a substance being dumped in a lake. Upon further investigation and information provided it was determined to be an organic additive that the maintenance company adds to the pond to keep it free from algae.

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 2016-2017 reporting period, the City maintained the Let Us Know webpage to include a specific category for storm water complaints. The City received eight (8) storm water complaints via the Let Us Know system. Most of the complaints were transferred to other departments and any storm water related issues were addressed.

### Municipal Employee Training

IDDE awareness training was conducted on September 27, 2017. Thirty-two (32) municipal employees participated, including representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, and the Parks and Recreation Department. The training included background information on the MS4 program, municipal good housekeeping, 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 eight (8) waterbodies within the Madison City limits. As a result of the stream-walking effort, 252 outfalls were identified and inspected. Seventeen (17) 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.

#### *4.3.3 Status*

The IDDE strategies implemented during the 2016-2017 reporting period are in compliance with Part II.B.3 of the Individual Phase II Permit.



The City has revised 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 were incorporated into the proposed 2017 SWMPP.

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

#### 4.4.1 *Activities Completed / In Progress*

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

#### 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 became recertified during the 2016-2017 reporting period to maintain his Qualified Credentialed Inspector (QCI) certification. Ms. Romine was recertified as a QCI on September 27, 2016 and the recertification is good for a period of one year. In addition to Mr. Ahonen and Ms. Romine, the City had five (5) additional employees receive Qualified Credentialed Inspector (QCI) recertification during the 2016-2017 reporting period. Ms. Romine and Public Works Director, Kent Smith attended Chemical Spill Response Training Hazardous Materials Operations/ Level II Training on February 14, 2017. October 19-21, 2016 Ms. Romine and Civil Engineer, Greg Bates attended the Southeast Storm Water Association Conference held in Birmingham, AL. On October 31, 2016 The City hosted Qualified Credential Professional (QCP) Training and Ms. Romine and Mr. Bates attended the course. In May 2017, Ms. Romine and City Engineer, Gary Chynoweth attended the Alabama Stormwater



Forum. Ms. Romine received certification through Alabama Water Watch for Water Chemistry and Bacteriological Monitoring during the reporting period and in April 2017; Ms. Romine also received her NPDES Certified Stormwater Inspector Certification.

### **Site Inspection**

The Engineering Department continuously maintains an updated inventory of all active construction sites within the MS4 area to the maximum extent practical. During the 2015-2016 reporting period, the ALR100000 Construction General Permit expired. The City is actively seeking permit information from builders, developers and the ADEM website as the information becomes available.

Construction storm water BMPs were observed at all active construction sites during the reporting period. The observations were performed in conjunction with other routine construction inspections. A total of 5,403 construction site inspections were performed during the reporting period.

### **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, forty-four (44) 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 eight (8) storm water complaints during the reporting period. The complaints were either resolved or transferred to the appropriate department for resolution.

### **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. The City initiated one (1) Stop Work Orders on a non-compliant site.

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, no stop work orders were issued to qualifying construction sites that were identified as operating without an NPDES permit.

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 2016-2017 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 implemented a BMP inspection form as part of the 2017 proposed 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 received QCI recertification training during the reporting period. These five (5) employees will notify the ADEM Compliance Administrator of deficiencies noted during routine building inspections or project inspections. However, due to the limited number of staff to collect the reports, the deficiencies were tracked by email.

### *4.4.3 Status*

The Construction Site Storm Water Runoff strategies implemented during the 2016-2017 reporting period are in compliance with Part II.B.4 of the Individual Phase II Permit.

The City revised 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 were incorporated into the proposed 2017 SWMPP.

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

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

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

#### 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 2014-2015 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 2014-2015 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 June 13, 2016, and the Subdivision Regulations, dated October 20, 2016. During the reporting period, forty-four (44) 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 Bradford Creek Trailhead and Palmer Park Greenway and final inspections were conducted. Greenbrier Hills, Phase 1, Shelton Hill, Phase 1, Willow Creek, Phase 1, Village at Oakland Springs, Dublin Farms, Piney Creek, Jack's Family Restaurant, State Farm Insurance, Space Saver Storage, Cineplanet 15 Cinemas, Wendy's, and Edward Jones post-construction structural controls became operational during the reporting period and were also inspected.

To ensure the long-term operation and maintenance of existing post-construction BMPs, the City performs yearly inspections of City-managed BMPs. During the reporting period, inspections were performed on fourteen (14) City-owned or maintained 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 December 2018. During the previous reporting periods, 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. BMPs that were identified as needing maintenance or corrections were sent to the Public Works Department for the necessary corrective actions.

#### *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 December 2018.

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 FY2017 budget and includes a specific category for water quality improvement projects. An updated Storm Water User Fee 5 Year Plan was presented to



City Council during the adoption of the FY2018 budget process.

#### 4.5.3 *Status*

The Post-Construction Storm Water Management strategies implemented during the 2016-2017 reporting period are in compliance with Part II.B.5 of the Individual Phase II Permit.

The City revised 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 were incorporated into the proposed 2017 SWMPP.

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

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

During the October 1, 2016 to September 30, 2017 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 2016-2017 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 included in the attached cd.

#### **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, all eleven (11) 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 and to sweep 209.2 lane miles of curb and gutter roads. There were no winter weather events during the 2016-2017 reporting period. Approximately 73.68 tons of debris was removed from the roads during the annual sweep.



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 purchased in September 2017 for installation in October 2017 at the Sullivan Street crossing of Garner Street drainage basin to filter the entire 440 acre drainage basin prior to entry into Bradford Creek. A floating boom was also installed in June 2017 at the YMCA to catch debris. 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 developed three (3) SOPs during the 2016-2017 reporting period for Materials and Waste Storage (No Oil Based Paint), Vehicle Maintenance and Fueling and Vehicle Wash.

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 May of 2017. 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 eleven (11) municipal facilities were inspected for good housekeeping practices. The inspections were recorded on the Site Evaluation Form and pictures were taken during the inspection.

### **Employee Training**

Municipal Pollution Prevention training was conducted on September 27, 2017 and thirty-two (32) municipal employees participated in the training. The attendees included representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, and the Parks and Recreation Department. The training included background information on the MS4 program, municipal good housekeeping, spill prevention, fuel storage, used oil management, equipment storage, vehicle washing, and spill clean-up as well as information on common illicit discharges, how to identify illicit discharges, and where to report suspect discharges.

### **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 FY2017 budget and includes water quality improvement projects across the MS4 area.

The City inspected fourteen (14) structural controls it maintains. These structural controls are a combination of City constructed flood control projects, developer constructed detention facilities and existing detention or retention ponds that the City is currently designing modifications for future improvements. Future improvements are designed to reduce impacts from the 100 year storm event and



at the same time, convert post developed areas to meet pre-development hydrology for the 1.14" 24 hour rainfall. Inspections were made on all fourteen (14) structures and maintenance requests were sent to the Public Works Department for corrective action.

Since 2013, the storm improvement projects completed by the City have had an accumulative effect of converting 723 acres of post development land to pre-development hydrology, reduced the floodplain by an estimated 120 acres, developed 8.30 acres of standing water ponds that will revert to wetland conditions and the City has placed a trash racks over drainage inlets that collects floatable debris from 726 acres.

#### *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, materials and waste storage (no oil based paint), and vehicle maintenance and fueling. The City developed SOPs or BMP Plans for the appropriate Departments by September 30, 2017.

The street sweeping implemented during the 2016-2017 reporting period resulted in the collection of approximately 73.68 tons during an annual 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 2016-2017 reporting period are in compliance with Part II.B.6 of the Individual Phase II Permit.

The City revised 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 were incorporated into the proposed 2017 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 currently revised the Storm Water Management Program to address the requirements of the Individual Phase II Permit. During the 2016-2017 reporting period, the City updated the Storm Water Management Program Plan 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 2017 fiscal year that reflects the priorities of the Individual Phase II Permit. The FY2017 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 proposed SWMPP.

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

### **6.1 Inspections**

- 252 outfalls were identified and inspected during the reporting period.
- Seventeen (17) dry-weather flows were screened and determined to have no indicators of illicit discharges.
- 5,403 construction inspections were conducted. BMPs were observed during each construction inspection.
- BMPs were observed at thirteen (13) Priority Sites a minimum of once per month.
- Fourteen (14) post construction BMPs were inspected to determine if they were functioning properly.
- Eleven (11) municipal facilities were inspected for good housekeeping practices.

### **6.2 Enforcement Actions**

- Eleven (11) litter enforcement actions were taken.
- One (1) Stop Work Order was issued to a qualifying construction site operating without appropriate BMPs.



### 6.3 Corrective Actions

- Three (3) illicit discharges were reported and managed by The Engineering Department. One report, received May 22, 2017, pertained to a swimming pool discharge and a filter system was installed to dechlorinate the water during the back wash process to alleviate the problem. The second report, received July 7, 2017 was regarding paint in the storm drain. The paint was dry upon inspection and it did not appear to enter the storm box itself. The third report, received September 6, 2017 was in regards to a substance being dumped in a lake. Upon further investigation and information provided it was determined to be an organic additive that the maintenance company adds to the pond to keep it free from algae.
- The City received eight (8) construction storm water complaints during the reporting period. The complaints were either resolved or transferred to the appropriate department for resolution.

### 7.0 Public Education Program Implementation Status

During the 2016-2017 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 previous Annual Reports. Website traffic grew 27% from FY2016 to FY2017.
- 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 second time. The 2016 festival was held on October 1, 2016. The ADEM Compliance Administrator and City Engineer distributed over 1,500 items branded with the Madison storm water logo. The City also participated in the Madison Chamber Business Expo and Kid's Day where approximately 500 items were distributed. The City also participated in the 2017 Drug Take Back programs.
- The City sponsored the 2017 Madison County Drinking Water Festival. The festival was held May 10-11, 2017 on the campus of the University of Alabama in Huntsville. The ADEM Compliance Administrator also serves on the Festival Advisory Committee.
- 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 2015-2016 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 2017 Fiscal Year, the City of Madison budgeted \$302,000 for the implementation of the storm water program, an increase of \$3,000 over the previous fiscal year.

**Table 8-1 FY2017 Storm Water Program Budget**

Expenditure	Amount
Annual Reporting Requirements	\$5,000
Illicit Discharge and Detection Elimination	\$50,000
Pollution Prevention/ Good Housekeeping for Municipal Operations	\$149,250
Public Education & Involvement	\$8,500
Water Quality Improvements	\$51,250
County Administration Fees	\$3,051
Department of Revenue / ADEM to Administer Program	\$14,949
Yearly Contingency for Environmental Emergencies	\$20,000
<b>Total FY2016 MS4 Storm Water Budget</b>	<b>\$302,000</b>

As previously discussed, the 2017 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 second year that public education has been specifically included in the budget.

The FY2018 budget also included additional funding for further ORI activities, stream maintenance, flood studies, a street sweeping program including street sweeping for storm and event cleanup, and water quality improvement projects.



**Table 8-2 FY2018 Storm Water Program Budget**

Expenditure	Amount
Annual Reporting Requirements	\$6,000
Illicit Discharge and Detection Elimination	\$50,000
Pollution Prevention/ Good Housekeeping for Municipal Operations	\$153,000
Public Education & Involvement	\$8,500
Water Quality Improvements	\$47,320
County Administration Fees	\$3,030
Department of Revenue / ADEM to Administer Program	\$15,150
Yearly Contingency for Environmental Emergencies	\$20,000
<b>Total FY2016 MS4 Storm Water Budget</b>	<b>\$303,000</b>

## 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 2015-2016 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 FY2017 was \$302,000. The City began receiving revenue from the Storm Water User Fee in November 2016. The total expected revenue from the Storm Water User fee during FY2018 is \$303,000.

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.



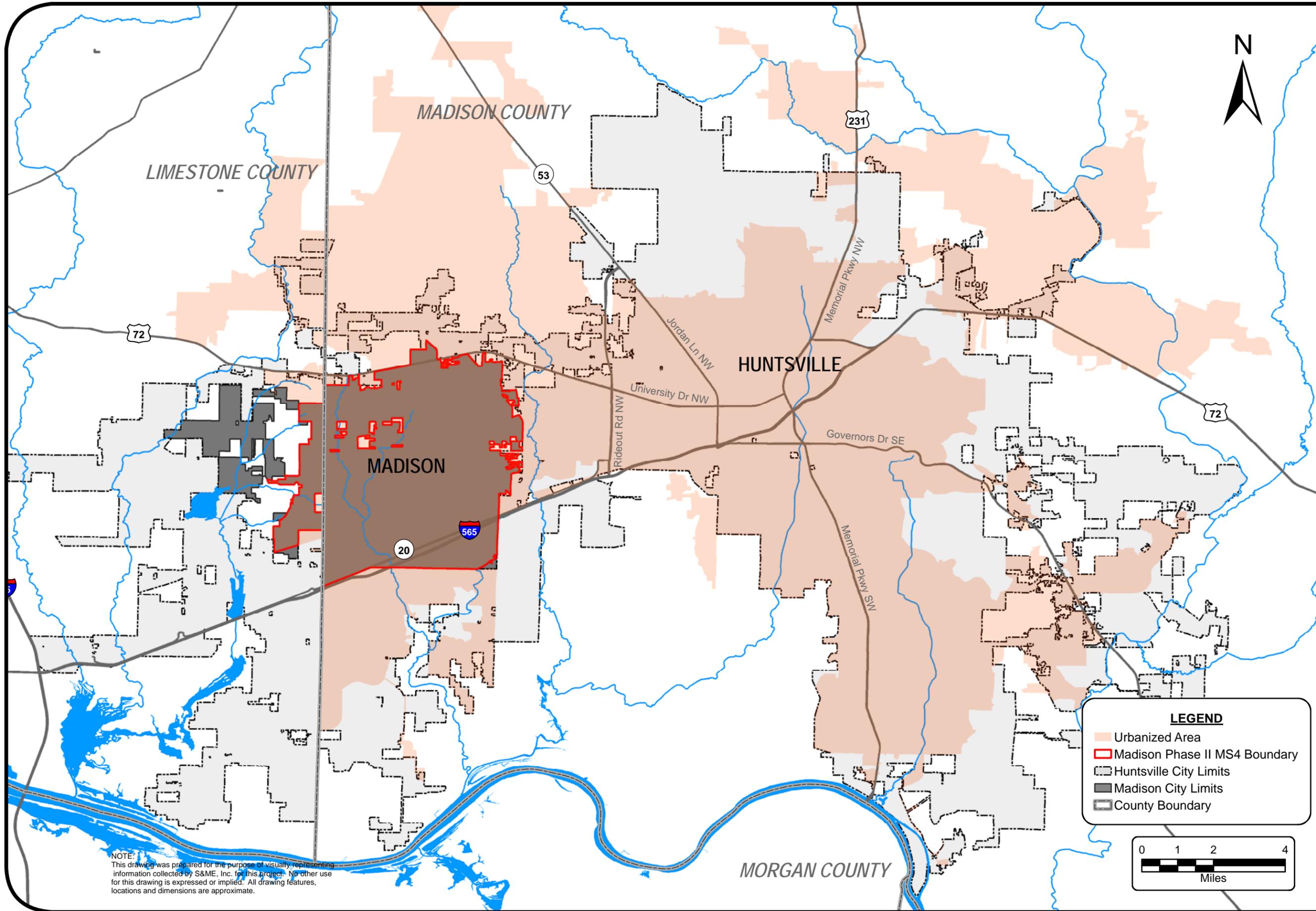
## 9.0 Agency Certification

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.

Paul Finley, Mayor

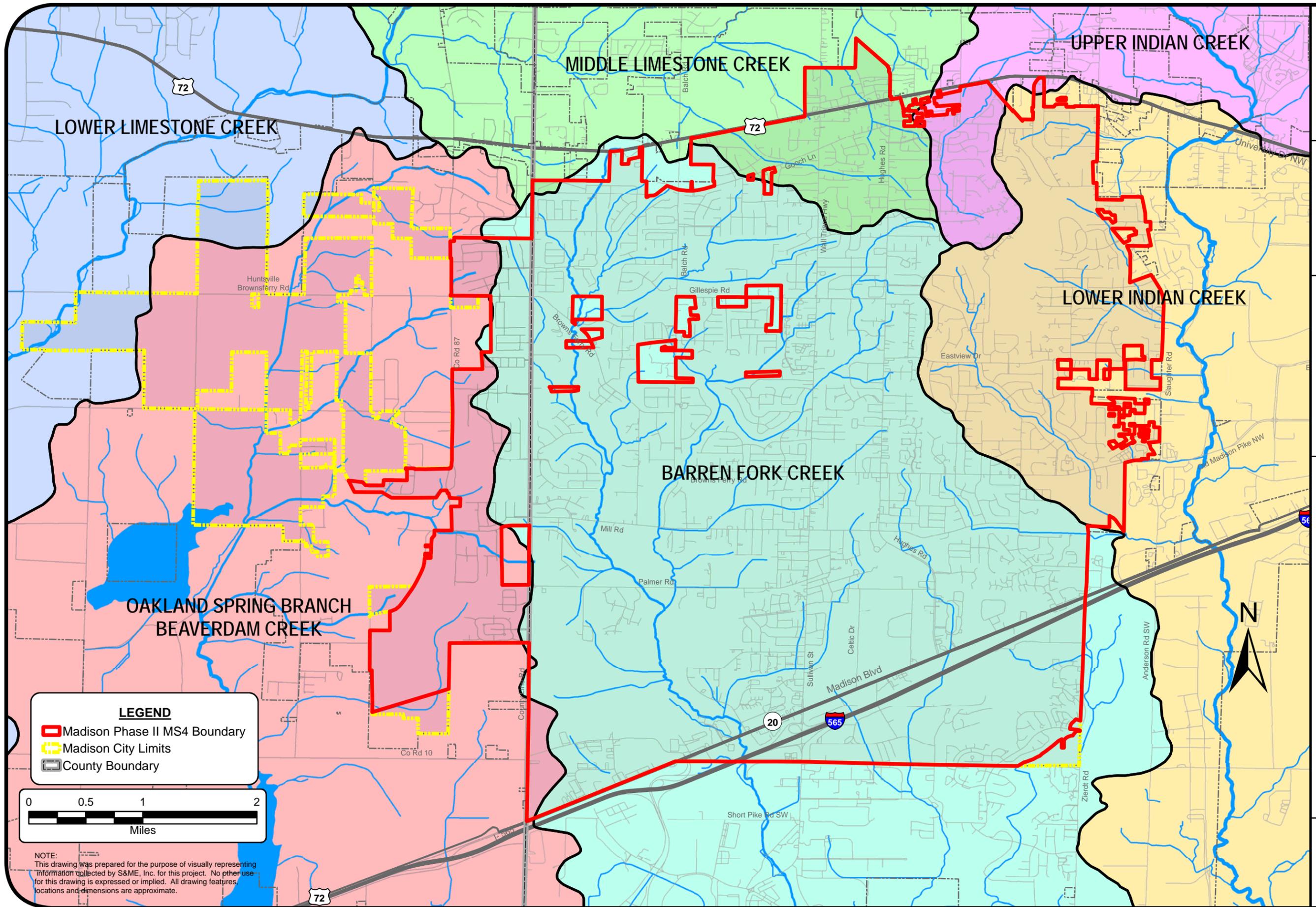
1-30-18

Date



DATE: 09/30/16	SCALE: 1:160,000	CITY OF MADISON
	NPDES NO: ALS000014	
ALSO000014 PERMITTED AREA		MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA
FIGURE NO. 1		





**LEGEND**

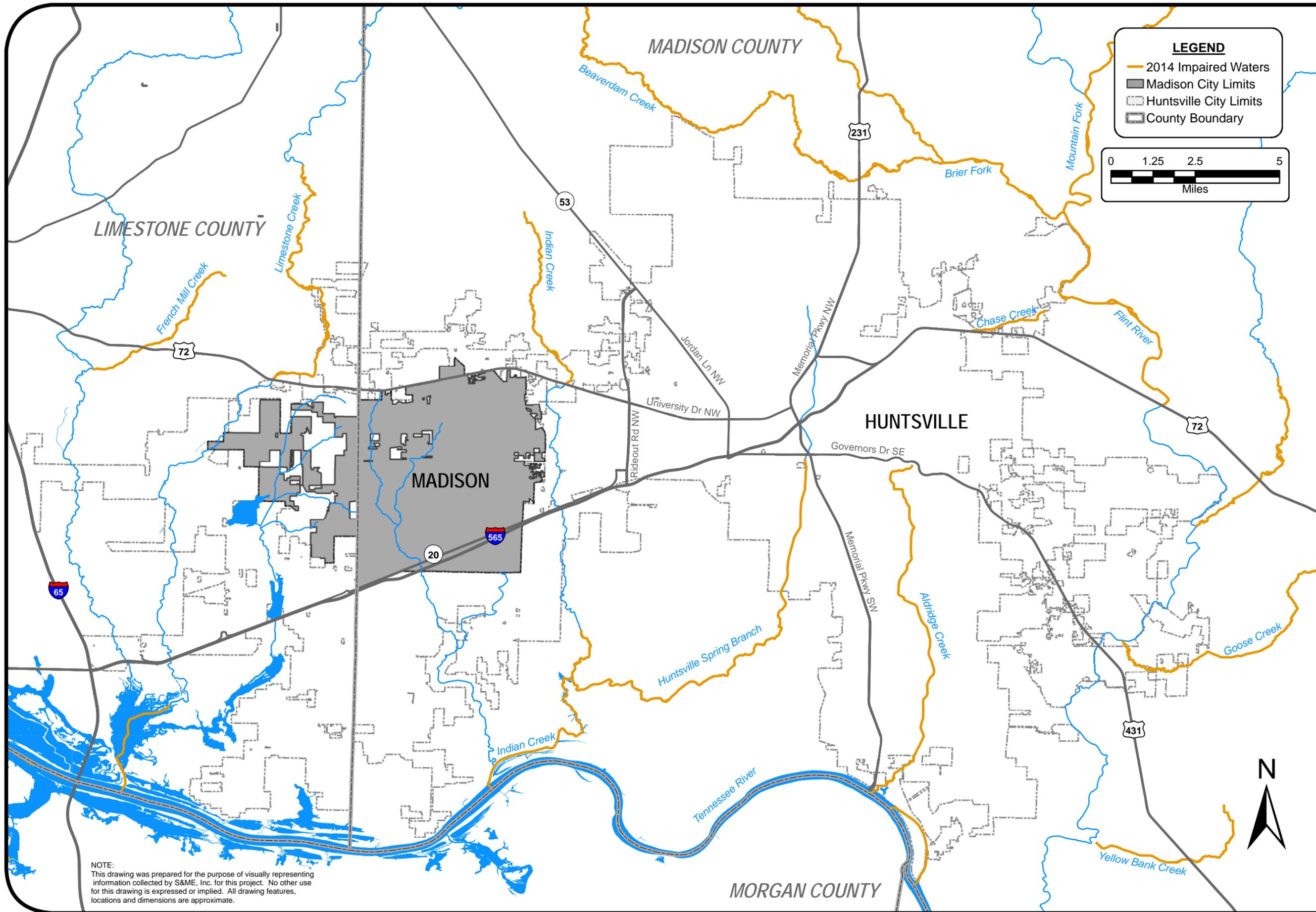
- Madison Phase II MS4 Boundary
- Madison City Limits
- County Boundary



NOTE:  
 This drawing was prepared for the purpose of visually representing information collected by S&ME, Inc. for this project. No other use for this drawing is expressed or implied. All drawing features, locations and dimensions are approximate.

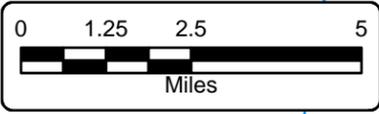
HUC 12 WATERSHEDS MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA	CITY OF MADISON
DATE: 09/30/16	SCALE: 1:50,000
FIGURE NO.	NPDES NO: ALS000014

3



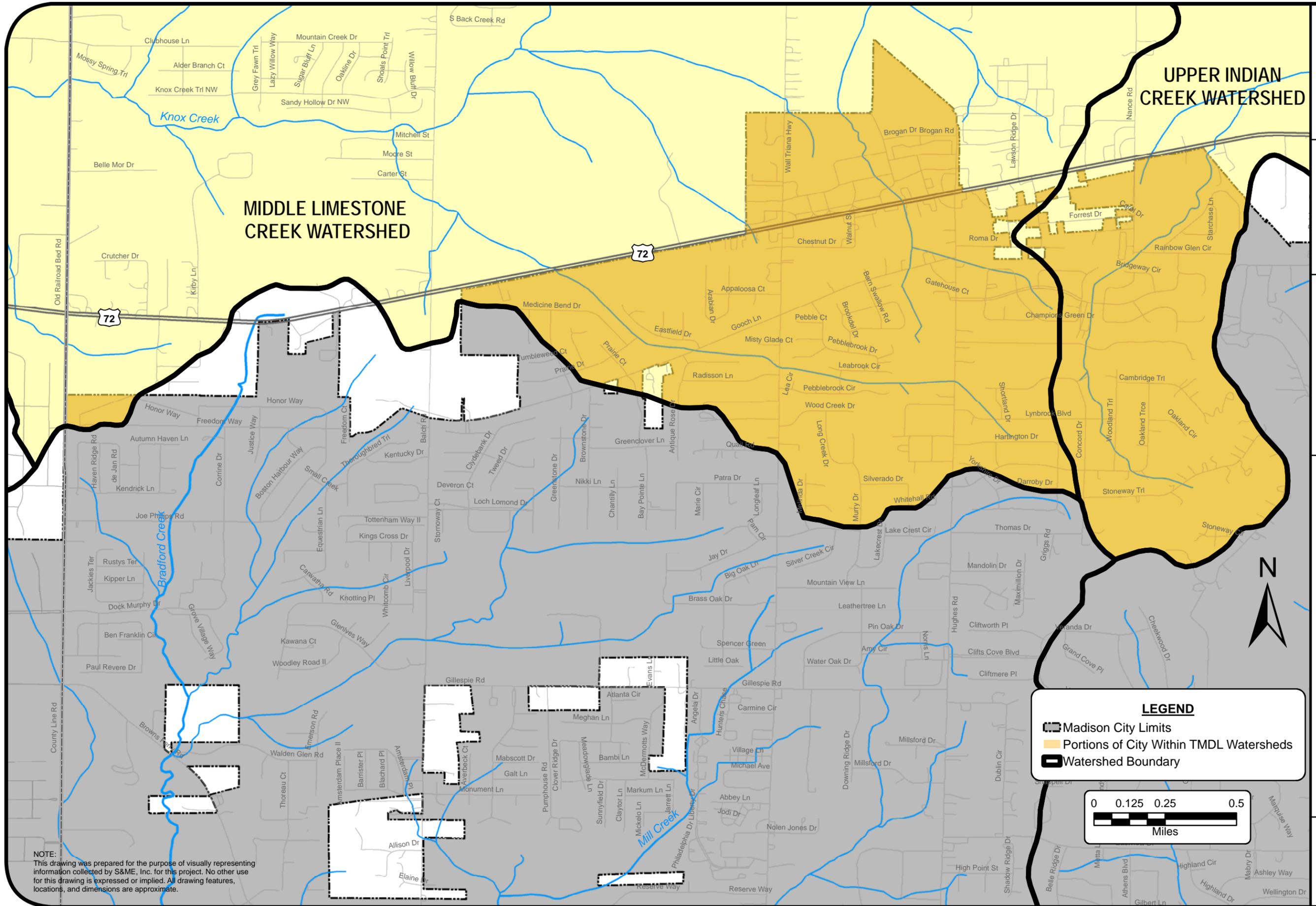
**LEGEND**

- 2014 Impaired Waters
- Madison City Limits
- Huntsville City Limits
- County Boundary



DATE: 09/30/16		
SCALE: 1:170,000	CITY OF MADISON	NPDES NO: ALS000014
ALS000014 IMPAIRED WATERBODIES	MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA	
FIGURE NO.	4	

NOTE:  
This drawing was prepared for the purpose of visually representing information collected by S&ME, Inc. for this project. No other use for this drawing is expressed or implied. All drawing features, locations and dimensions are approximate.



NOTE:  
 This drawing was prepared for the purpose of visually representing information collected by S&ME, Inc. for this project. No other use for this drawing is expressed or implied. All drawing features, locations, and dimensions are approximate.

UPPER INDIAN CREEK WATERSHED

MIDDLE LIMESTONE CREEK WATERSHED

DATE: 09/30/16

SCALE: 1:20,000

NPDES NO: ALS000014

CITY OF MADISON

TMDL WATERSHEDS IN MADISON

MUNICIPAL SEPARATE STORM SEWER SYSTEM  
 CITY OF MADISON, ALABAMA

FIGURE NO.

5

**CITY OF MADISON PHASE II MS4  
CM 1. Storm Water Collection System Operations**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Stream cleanup events	YES	The City spoke with local leaders of the Boy Scouts of America and the citizens group, Just Serve to determine if they would participate.	The City will continue communication with local leaders of the Boy Scouts of America and Just Serve to determine if they will participate. Other civic groups may also be contacted.	
2	Install BMPs for direct removal of trash from the MS4	YES	1 Super Swamp Booms was installed in June of 2017 at the YMCA. A trash rack was purchased in Sept. 2017 for install in Oct. 2017 at Sullivan Street.	Additional trash removal BMPs will be installed within the MS4 with priority given to known flooding locations	
3	Trash removal from city maintained public rights of way and public areas	YES	The City required removal and reporting of trash collection in the Bid Specifications for the City Landscape Maintenance Contract. 2,024 bags (39 gallon bags) of trash collected by Coleman Landscaping, 132 gallons of trash collected by Tidewater Landscaping and Intergraph reported removing 3,473 gallons of trash from the spillway at their location on Graphics Drive.	The City will continue to require the removal and reporting of trash collection through the City Landscape Maintenance Contracts.	
4	Partnerships with homeowners associations	YES	The City requires common areas to be maintained by the owner of record on all final plats. The City met with various HOA's regarding potential improvements or changes to structural controls for increased functionality and discussed pollution prevention and maintenance strategies.	The City will continue to partner with HOA's to improve existing structural controls and increase awareness of the effects of improper maintenance.	
5	Maintain waste receptacles in public areas	YES	The City maintained trash receptacles at City-owned parks, greenways, and Village Green	The City will continue to maintain waste receptacles at parks and other public areas.	
6	Additional enforcement of litter ordinances	YES	11 litter enforcement actions taken	Code Enforcement will continue to respond to complaints regarding trash or litter.	

**CITY OF MADISON PHASE II MS4  
CM 1. Storm Water Collection System Operations**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
7	Prevention through construction site inspections	YES	5,403 construction sites inspections performed	Construction sites will be inspected on the schedule detailed in the SWMPP. The inspections will also cover trash and materials management.	Can provide a copy of the field book.
8	Temporary protection at public events	YES	7 Special Events Permits issued 2 Parade Permit issued 3 Race Permits issued 10 City-managed events held	The Special Events Permit and Parade/Race Permit will be revised to require event organizers to provide temporary protection where feasible.	
9	Event trash receptacles	YES	7 Special Events Permits issued 2 Parade Permit issued 3 Race Permits issued 10 City-managed events held	The City will revise the Special Events Permit to require event organizers to provide trash receptacles.	Information on trash collection during City-managed events can be provided
10	Prompt removal of trash	YES	7 Special Events Permits issued 2 Parade Permit issued 3 Race Permits issued 10 City-managed events held	The City will perform or require for cleanup of the event area and related catch basins within one business day of a public event.	Cleanup occurred within one business day of all City-managed events
11	Identify high-trash areas	YES	The City maintained Main Street in downtown Madison as a high trash area	The City will continue to designate high-trash areas and identify them on the MS4 map once they are identified.	
12	Provide additional trash receptacles in high-trash areas	YES	The City found the amount of receptacles in the downtown Madison area acceptable and no additional receptacles were added.	Additional trash receptacles will be provided in high-trash areas once identified, if needed.	

**CITY OF MADISON PHASE II MS4  
CM 2. Public Education and Public Involvement**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Maintain the Storm Water Management Program Webpage.	YES	236 hits were recorded on the Storm Water Webpage. An increase of 27% from the previous reporting period	The City will continue to maintain the Storm Water Management Program Webpage on the City's website.	<a href="http://www.madisonal.gov/stormwater">www.madisonal.gov/stormwater</a>
2	Seek public input on the most recent Annual Report and the SWMPP.	YES	The Annual Reports and SWMPP were posted to the Storm Water Management Webpage and made available for stakeholder comments	The 2016-2017 Annual Report will be posted by <b>February 28, 2018</b> .	
3	Partner with a civic group to implement a storm drain marking program.	YES	The City discussed the storm drain marking program with local leaders of the Boy Scouts of America and the Just Serve citizens group. Storm drain markers have been ordered and are ready for placement.	The City will continue promoting the storm drain marking program with local civic groups.	
4	Continue to support and promote the Adopt-a-Mile program.	YES	The City of Madison Beautification & Tree Board coordinates and promotes The Pride of Madison Adopt-a-Mile program and made contacts at the Chamber of Commerce Expo in July 2017. The Engineering Department added a link to the program to their Storm Water webpage.	The Madison Beautification and Tree Board and the Engineering Department will continue to implement The Pride of Madison Adopt-a-Mile program.	
5	Continue to provide for weekly pickup of bagged residential yard waste.	YES	Republic Services was contracted to perform yard waste disposal.	The City will continue to provide for weekly pickup of bagged residential yard waste.	
6	Distribute storm water educational material during each reporting period.	YES	14 items promoting storm water education were developed or prepared for distribution. The City distributed over 1,500 items including: reusable shopping bags filled with storm water educational materials, reusable cups for children, hacky sacks and stress balls all that had the City of Madison Clean Water logo on it during the reporting period.	The City will continue to promote a storm water awareness logo on promotional materials and handouts and provide information in Press Releases and News Flashes.	
7	Educate engineers, developers, and contractors through plan review and permitting of new construction and development.	YES	44 construction plans were reviewed	The City will conduct plan reviews for proposed development and re-development.	Preliminary Plat Checklist/ Site Plan Checklist

**CITY OF MADISON PHASE II MS4  
CM 2. Public Education and Public Involvement**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
8	Staff at least one community festival or other public event during the fiscal year to perform public outreach.	YES	City sponsored the 2017 Madison Co. Drinking Water Festival held May 10-11, 2017 with more than 1,450 expected attendees. ADEM Compliance Administrator was a member of the Festival Advisory Committee. The Engineering Dept. had a booth at the 2016 Madison Street Festival held Oct. 1, 2016 and The Chamber of Commerce Business Expo and Kid's Day held July 29, 2017.	City personnel will support the 2018 Madison County Drinking Water Festival. City Engineer and ADEM Compliance Administrator manned a booth at the 2017 Madison Street Festival, Oct. 7, 2017 and distributed over 1,500 reusable shopping bags, stress balls and educational materials relating to storm water awareness.	
9	Pet waste stations will be maintained at City and neighborhood parks where pet traffic is anticipated.	YES	58 total pet waste stations were maintained by the City.	The City will continue to maintain pet waste stations. The City will also evaluate the addition of educational signage at selected pet waste stations.	
10	Promote a hazardous waste collection program.	YES	The City promoted the "Handle with Care" program administered by the Huntsville SWDA by distributing brochures, providing a link to SWDA on City of Madison Public Works webpage and the City of Madison Storm Water webpage.	The City will continue to promote the SWDA "Handle with Care" program.	
11	Promote a curbside recycling program.	YES	The City promoted the "Our World Is In Your Hands!" citizens guide to recycling program administered by the Huntsville SWDA by distribution of brochures, providing information and links to SWDA on City of Madison Public Works webpage, the Storm Water webpage and Channel 42	The City will continue to promote the "Our World Is In Your Hands!" citizens guide to recycling program administered by the Huntsville SWDA.	
12	Maintain a reporting and tracking system for complaints.	YES	The City continued to implemented the LET US KNOW feature on the Storm Water Management webpage and 8 complaints were received that were resolved or transferred to the appropriate department.	The City will continue to maintain the Let Us Know feature through Qalert as a reporting and tracking system for complaints.	
13	Evaluate the effectiveness of the Public Education and Involvement Program.	YES	The Storm Water Management Program Budget was approved for FY2017.	The Storm Water Management Program Budget was approved for FY2018.	

**CITY OF MADISON PHASE II MS4  
CM 3. Illicit Discharge Detection and Elimination**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement an IDDE ordinance.	YES	The ordinance was adopted on <b>April 14, 2015</b> . No changes were made during the reporting period.	Annually review the IDDE Ordinance and update as needed.	
2	Develop and maintain a map of the Madison MS4.	YES	The City maintained a GIS map of the Madison MS4.	The City will continue to update the existing MS4 map as outfalls are identified.	
3	Implement a stream-walking program to identify previously unknown outfalls.	YES	252 outfalls were identified 17.80 miles of stream were walked	The City will provide for stream-walking and ORI of Indian Creek tributaries.	
4	Verify probable outfalls identified on construction plans.	YES	The City receives as-built surveys of new developments and field verifies outfalls prior to acceptance into the City of Madison Maintenance Program.	The City will continue to field verify outfalls that are identified on the as-built surveys and will begin locating the outfalls in GIS.	
5	Conduct dry weather inspections of all identified outfalls at least once during each five-year permit cycle. Inspect priority outfalls once every 3 years.	YES	252 outfalls were inspected	The City will provide for dry weather inspections of outfalls to Indian Creek tributaries.	
6	Screen observed dry weather flows	YES	17 dry weather flows were observed and screened 0 dry weather flows were determined to be suspect	Dry weather flows observed during the scheduled inspections will be screened.	
7	Sample suspect discharges	YES	0 suspect discharges were identified	Suspected discharges observed during the scheduled inspections will be sampled.	
8	Designate observed outfalls as having obvious, suspect, possible, or unlikely discharge potential. Investigate obvious and suspect illicit discharges.	YES	0 outfalls were designated as having obvious or suspect discharge potential	Outfalls will be designated based on results from the scheduled inspections.	
9	Perform illicit discharge investigations to determine sources of identified illicit discharges.	YES	0 illicit discharges were identified, and no investigations were performed	Investigations will be performed when illicit discharges are identified.	
10	Maintain a case log for each identified illicit discharge or connection.	YES	0 illicit discharges were identified, and no investigations were performed	The City will maintain a case log for each identified illicit discharge or connection.	

**CITY OF MADISON PHASE II MS4  
CM 3. Illicit Discharge Detection and Elimination**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
11	Eliminate identified illicit discharges or connections	YES	0 illicit discharges were identified	The City will work to eliminate illicit discharges or connections when they are identified.	
12	Notify ADEM of illicit discharges from adjacent MS4s	YES	0 illicit discharges were identified	If an illicit discharge originating from an adjacent MS4 is identified, ADEM will be notified.	
13	Maintain the Let-Us-Know web reporting system for citizen complaints.	YES	3 complaint was received 3 complaint was addressed 3 complaint was resolved	The City will continue to maintain the Let-Us-Know web reporting system.	
14	Train appropriate personnel on identification and reporting of illicit discharges.	YES	IDDE Awareness Training was conducted on <b>September 27, 2017</b> . 32 municipal employees attended	The City will continue to train appropriate personnel on identification and reporting of illicit discharges.	

**CITY OF MADISON PHASE II MS4  
CM 4. Construction Site Storm Water Runoff Control**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement an Erosion and Sediment Control Ordinance.	YES	The ordinance was adopted on <b>April 14, 2015</b> . No changes were made during the reporting period.	The City will review the Erosion and Sediment Control Ordinance and update as needed.	
2	Annually train personnel tasked with plan review and/or conducting BMP inspections.	YES	Gina Romine was recertified as a Qualified Credentialed Inspector on <b>September 27, 2016</b> . 5 additional employees became Qualified Credentialed Inspector certified. Ms. Romine also received her NPDES Certified Stormwater Inspector certification on <b>April 13, 2017</b> .	The 6 municipal employees will receive QCI recertification.	
3	Maintain a list of all active construction sites within the MS4 boundary and include in the City's GIS.	YES	An active list of construction sites within the MS4 was maintained to the MEP. The Construction General Permit expired in 2016.	The City will maintain a list of all active construction sites within the MS4 boundary.	
4	Conduct regular inspections of construction sites within the MS4.	YES	5,403 construction site inspections were performed on active sites	Construction sites inspections will be conducted and documented as provided in the SWMPP.	
5	Inspect priority construction sites at least once per month.	YES	13 Priority Sites were active during the reporting period. They were inspected monthly.	Priority construction sites will be inspected at least once per month and the City will begin documenting inspection on a inspection report implemented with the 2016 SWMPP.	
6	Require qualifying construction sites to submit an Erosion and Sediment Control Plan prior to the start of construction.	YES	44 plans were reviewed 0 Land Disturbance Permits was issued	The City will continue to require development approval or approval as required by the Erosion and Sediment Control Ordinance prior to the start of construction.	
7	Evaluate the existing plan review procedures and criteria.	YES	Additional plan review criteria was codified in the Erosion and Sediment Control Ordinance approved on <b>April 14, 2015</b> .	The City will evaluate the existing plan review procedures and criteria during the annual review of the ordinance.	
8	Maintain records of public complaints.	YES	The City investigated alternative means of maintaining records of complaints. Due to limited staffing only a partial list was completed, other records are maintained in emails.	The City will continue to investigate alternative tracking systems and implement measures for the tracking of public complaints.	

**CITY OF MADISON PHASE II MS4  
CM 4. Construction Site Storm Water Runoff Control**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
9	Document erosion and sediment enforcement actions.	YES	The City investigated alternative means of maintaining records of enforcement actions. Due to limited staffing only a partial list was completed, other records are maintained in emails.	The City will implement a means of tracking enforcement actions.	
10	Notify ADEM of unpermitted construction sites.	YES	0 unpermitted sites were reported to ADEM. The City issued 0 Stop Work Order to a construction site due to the lack of an ADEM permit prior to the start of construction	The City will notify ADEM of any person who has violated and continues to violate the Erosion and Sedimentation Control Ordinance shall be reported to ADEM as specified in the City of Madison Erosion and Sediment Control Ordinance.	
11	Notify ADEM of noncompliant construction sites.	YES	0 noncompliant sites were reported to ADEM. The City issued 1 Stop Work Orders to a construction site due to the lack of erosion control	The City will notify ADEM of any person who has violated and continues to violate the Erosion and Sedimentation Control Ordinance shall be reported to ADEM as specified in the City of Madison Erosion and Sediment Control Ordinance.	

**CITY OF MADISON PHASE II MS4  
CM 5. Post-Construction Storm Water Management**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement a program to address post-construction storm water by <b>December 31, 2018.</b>	YES	The City began development and implementation of a Post-Construction Program.	The City will develop a post-construction storm water management ordinance.	The City continued to require structural controls to be designed to meet the 1.14" rainfall over a 24 hr criteria and that post-construction runoff mimics pre-construction hydrology
2	Develop and institute the use of a regulatory mechanism to address post-construction runoff	YES	The City continued to implement the revised Design Standards for Proposed Storm Water Detention/ Retention to address post-construction runoff	The City will develop a post-construction storm water management ordinance and will continue to implement the revised design standards	
3	Require submittal of Post-Construction Storm Water Management Plans.	YES	44 plans were reviewed	The City will continue to require the submittal of plans showing the planned Post-Construction BMPs.	
4	Develop and implement strategies to ensure that post-construction runoff mimics the pre-construction hydrology.	YES	The City implemented the revised design standards that were issued in June of 2015 to ensure that post-construction runoff mimics pre-construction hydrology	The City will continue to implement the revised design standards	
5	Implement site development plan review and approval procedures for qualifying new development and redevelopment projects	YES	Site development plan review and approval procedures are documented in the Zoning Ordinance and Subdivision Regulations. Plan review criteria are established in the Zoning Ordinance, Subdivision Regulations, Construction Specifications Manual, the Alabama ESC Handbook and the Design Standards for Proposed Storm Water Detention/ Retention	The City will continue to require the submittal of plans showing the planned Post-Construction BMPs.	
5	Maintain an inventory of post-construction BMPs within the MS4 limits	YES	The City maintained an inventory of post-construction BMPs within the MS4 limits	The City will continue to maintain an inventory of post-construction BMPs within the MS4 limits	
6	Conduct post-installation inspections of completed post-construction BMPs.	YES	14 inspections of a completed post-construction BMPs were conducted.	The City will continue to conduct post-installation inspections of completed post-construction BMPs and add to their list of yearly inspections	

**CITY OF MADISON PHASE II MS4  
CM 5. Post-Construction Storm Water Management**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
8	The City will perform maintenance and repairs to post-construction BMP's and structural controls as needed.	YES	4 BMPs were identified as needing maintenance on post construction BMP's. Corrective actions were provided to Public Works for action.	The City will repair post-construction BMPs and structural controls as needed	
9	Require adequate long-term operation and maintenance of post-construction BMPs	YES	The City identified potential obstacles and legal issues that need to be addressed prior to requiring long-term maintenance agreements for new development and redevelopment	The City will address long-term maintenance and inspections during development of a Post-Construction Storm Water Management Ordinance	
10	Maintain or require the maintenance of records of post-construction inspections and maintenance activities	YES	The City recorded the performed inspections and will maintain the records of the inspections as required	The City will address long-term maintenance and inspections during development of a Post-Construction Storm Water Management Ordinance	

**CITY OF MADISON PHASE II MS4**  
**CM 6. Pollution Prevention/Good Housekeeping for Municipal Operations**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Maintain an inventory of all municipal facilities	YES	11 municipal facilities 0 municipal facilities with potential to discharge pollutants	The City will continue to maintain an inventory of municipal facilities.	
2	Develop strategies to reduce litter, debris, and floatables from municipal facilities	YES	The City contracted street sweeping services for storm event debris removal and for an annual street sweep. Approximately 73.68 tons of debris was removed during the annual sweep. There were no storm events.	The City has adopted the Storm Water User Fee FY2018 Budget that includes street sweeping of all curb and gutter roads.	
3	Develop a plan to remove and dispose of litter entering the MS4 from municipal facilities	YES	The City purchased 5 Super Swamp Booms in December 2015. The City installed 1 boom at the YMCA in June 2017. A trash rack was purchased in September 2017 for installation on Sullivan Street. The trash rack was installed in October 2017.	Additional trash racks will be installed during FY2018 and the 4 remaining Super Swamp Booms are scheduled for installation.	
4	Develop SOPs for the storage and disposal of chemicals and waste materials	YES	The City of Madison Public Works Dept. administers NPDES Permit ALG870034. The PDMP that is part of the permit was updated in May 2017. The NPDES Permit ALG870034 was renewed prior to the expiration date.	The Public Works Dept. will review and update the PDMP plan as necessary.	
5	Develop SOPs for good housekeeping for appropriate municipal facilities	YES	The City developed SOPs or BMP Plans for all appropriate municipal facilities or practices by <b>September 30, 2017</b> .	The City will review the SOPs or BMP Plans and update as needed.	
6	Conduct inspections of municipal facilities for good housekeeping practices	YES	11 municipal facilities were inspected	The City will conduct annual inspections of municipal facilities	
7	Conduct employee training on good housekeeping practices	YES	Employee training was conducted on <b>September 27, 2017</b> . 32 municipal employees attended.	The City will continue to train appropriate personnel on good housekeeping practices.	
8	Assess water quality impacts for flood management projects owned or operated by the City	YES	At least 22 projects were evaluated to determine if they could include water quality considerations.	The City will continue implementation of the Storm Water Management Budget that includes water quality improvement project funding.	

**CITY OF MADISON PHASE II MS4  
CM 6. Pollution Prevention/Good Housekeeping for Municipal Operations**

STRATEGY NO.	STRATEGIES	MET	2016-2017 IMPLEMENTATION STATUS	2017-2018 PROPOSED EFFORTS	COMMENTS / CHANGES
9	Evaluate the feasibility of retro-fitting existing structural controls to provide additional pollutant removal	YES	22 structural controls evaluated in 2015-2016 for retro-fitting or modification were further investigated during the 2016-2017 reporting period for retro-fitting or modification.	The City will continue implementation of the Storm Water Management Budget that includes water quality improvement project funding.	