

2015-2016 Annual Report



City of Madison

Individual Phase II MS4

NPDES Permit No. ALS000014



**Madison MS4
2015-2016 Annual Report
City of Madison, Alabama
NPDES Permit No. ALS000014**



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

January 27, 2017



Table of Contents

1.0	Introduction	1
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
2.0	Contacts List.....	3
3.0	Program Evaluation.....	4
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
4.0	Narrative Report	8
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>11</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	Construction Site Storm Water Runoff Control	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>	19
4.5	Post-Construction Storm Water Management	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	Pollution Prevention/Good Housekeeping for Municipal Operations	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
5.0	SWMPP Implementation Status and Proposed Changes	25
6.0	Summary of Inspections and Enforcement Actions	25
6.1	Inspections	25
6.2	Enforcement Actions	25
6.3	Corrective Actions	26
7.0	Public Education Program Implementation Status	26
8.0	Fiscal Analysis	27
8.1	Budgets.....	27
8.2	Funding Sources.....	28
9.0	Agency Certification	29



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 FY2016 Storm Water Program Budget	27
Table 8-2 FY2017 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, 2015 through September 30, 2016 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 2016 fiscal year and the 2017 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 2015-2016 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 2015-2016 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 2015-2016 reporting period to strengthen, organize, and consolidate the Storm Water Management Program.

1. Implemented a Storm Water User Fee

To address funding for the Storm Water Program, the City developed an ordinance to create a Storm Water User Fee, in accordance with state law. The ordinance 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 FY2016 was approximately \$298,000, 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



FY2016 Annual Operating Budget included the adoption of the FY2016 Storm Water User Fee budget. The City was able to allocate funding for annual reporting requirements, illicit detection and elimination, pollution prevention and good housekeeping for municipal operations, public education on storm water impacts, public involvement initiatives, and water quality improvement projects.

3. Submitted a revised Storm Water Management Program Plan

A revised SWMPP was submitted to ADEM in March 2016. The revised Storm Water Management Program Plan meets the requirements of the Individual Phase II Permit and will incorporate many of the strategies employed by the City under the previous Individual Phase I Permit.

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. Second year of stream-walking program

The City of Madison contracted S&ME, Inc. to conduct stream-walking activities on 19.09 miles of streams within the City limits. 139 outfalls were identified during the 2015-2016 reporting period and dry weather screening was conducted at each of the outfalls. No illicit discharges were observed and no samples were collected.

6. Maintained a Storm Water Management Program webpage

During the 2015-2016 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, 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 2016 Madison County Drinking Water Festival

The Madison County Drinking Water Festival was held May 12-13, 2016 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 2016 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 2015-2016 reporting period the City of Madison hired Ms. Holly Guest Herring, a Hydraulic/Environmental Engineer, to model detention basins within the City of Madison to improve hydraulic and water quality discharge performance. Ms. Herring began analyzing information to establish floodplains and modifications that may reduce the FEMA-established floodplains.

9. Conducted municipal IDDE training

Thirty-four (34) municipal employees participated in the IDDE awareness training conducted on September 28, 2016. The attendees included representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, the Parks and Recreation Department, and the Fire 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 2015-2016 reporting period, the City completed The Pines detention pond and modified the existing YMCA retention pond to increase the detention capacity. These improvements converted 195 acres of post-developed land to pre-developed hydrology for the 1.14" 24 hour rain fall and reduced the floodplain in the Betts Spring Tributary by an estimated 100 acres. The City also constructed the Garner Street north and south detention ponds and improved the capacity of an existing stream. These improvements converted 300 acres of post-developed land to pre-developed hydrology and reduced the floodplain in Bradford Creek by an estimated 30 acres. The Waterford Manor Lake was also modified to restore the lake to its operational detention capacity and restore that drainage basis of 65 acres to pre-development hydrology. The Cedar Cove detention pond was modified for a turbidity control demonstration project during the Clear Water Alabama Seminar and Field Day and the City will monitor the pond for effectiveness during the subdivision home building phase.

Table 3-1 Accumulative Accomplishments Since 2013

Total post development land converted to pre-development hydrology	678 acres
Total new development meeting pre-development hydrology	475 acres
Total area removed from floodplain	130 acres
Total area to revert to wetland conditions	7.45 acres
Total area filtered from floating debris	241 acres

3.3 Overall Program Strengths / Weaknesses

The City of Madison Storm Water Management Program is considerably stronger and more effective following the 2015-2016 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 2015-2016 reporting period, the City maintained a Storm Water Management Program Webpage, sponsored and served on the Advisory Committee for the 2015 Drinking Water Festival, promoted the new water quality logo, and distributed over 800 promotional items and/or educational materials during the 2015 Madison Street Festival on October 3, 2015. The City also participated in the City of Madison Chamber of Commerce Business Expo and Kid's Day for the first time and distributed approximately 500 storm water promotional items during the event held on July 23, 2016. The City was also the co-sponsor and host city for the 2016 Clear Water Alabama Seminar and Field Day, held August 24-25, 2016 where several Madison sites were showcased during the field day and during the presentation given by City Engineer, Gary Chynoweth and ADEM Compliance Administrator, Gina Romine titled "Revitalization of an MS4". The City also promoted their storm water awareness logo at the event by distributing bags to all participants.

Another strength of the program is the submittal of a new Storm Water Management Program Plan (SWMPP). In March 2016 the City submitted to ADEM an updated SWMPP that reflected the Individual Phase II Permit that the City has been issued. The new SWMPP is better suited for a City of Madison's size and is now more manageable than the previous Phase I permit and SWMPP.

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 2017-2018 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 of 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, 2015 to September 30, 2016 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 2015-2016 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 were identified as potential partners, and discussions were held with various troop leaders. Communication will be continued during the 2016-2017 reporting period.

During the 2015-2016 reporting period, the City evaluated and selected BMPs to accomplish the direct removal of trash from ponds, inlets, and/or culverts within the MS4. A trash rack was installed at Zierdt Road, a culvert crossing that prevented the crossing from plugging with debris which caused local flooding and also removed floatable debris from the stream. Additional trash removal BMPs will be installed during the 2016-2017 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 1,434.25 bags (39 gallons each) was collected by the landscape contractor during the reporting period. The increase from the previous reporting period is due to the increased mowing and trash collection frequency and the addition of approximately 11.80 miles of roadway.

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 December 2015, James Clemens High School became the second glass recycling drop-off site in Madison.

Another method of trash prevention was through enforcement of the existing litter ordinances. Code Enforcement was responsible for violations pertaining to the Nuisance Control and Property Maintenance Code. During the reporting period, four (4) litter enforcement actions were taken.

Trash prevention was also accomplished by increasing inspections of construction sites. During the reporting period, 5,165 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 October 2, 2015 for use during the festival held on October 3, 2015 and 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 seven (7) events were held during the 2015-2016 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.

During the reporting period, the City issued six (6) Special Events Permits, four (4) Parade Permits, and four (4) 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 2016-2017 reporting period to include a requirement for temporary protection of catch basins where feasible.

The fourteen (14) 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 2016-2017 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 2015-2016 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 2015-2016 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 2016 SWMPP.

4.2 **Public Education and Public Involvement**

4.2.1 *Activities Completed / In Progress*

During the October 1, 2015 to September 30, 2016 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 2015-2016 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 2015-2016 reporting period to distribute information on the Storm Water User Fee and provide access to the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, and the most recent Annual Report. The webpage also includes a links links to the Individual Phase II NPDES Permit, the 2016 SWMPP, the 2013-2014 Annual Report, 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 two (232) hits were recorded on the webpage during the 2015-2016 reporting period. There were twenty-five (25) hits on the webpage during the 2014-2015 reporting period; this is an increase of 828% from the previous reporting period.

By posting the 2016 proposed SWMPP on the Storm Water Management Program Webpage, the City is inviting citizens to review the document and submit comments. The City revised the current Phase I SWMPP to transition into the new requirements of the Individual Phase II Permit during the 2015-2016 reporting period. The revised 2016 SWMPP, was 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 2016 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 7,005.23 tons of debris was collected during the reporting period.

Education on Pollution Reduction

During the reporting period, sixteen (16) 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 2015-2016 reporting period. Educational materials were also placed at Public Works and within the Engineering Department. Additional storm water information was included in Council Newsletters and on the Storm Water webpage.

The City also continued to promote their storm water awareness logo on promotional materials and handouts. During the 2015-2016 reporting period, approximately 1,250 reusable shopping bags branded with the logo were distributed at the 2015 Madison Street Festival, The Madison Chamber Business Expo and Kid's Day, The Clear Water Alabama Seminar and Field Day, and were prepared 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. The City also had 1,500 reusable cups branded with the storm water awareness logo for distribution. During September 2016, 1,500 additional reusable shopping bags and 1,500 hacky sacks were ordered with the storm water logo for the October 1, 2016 Madison Street Festival and other events that will take place during the 2016-2017 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 2015-2016 reporting period, twenty-six (26) construction plans were reviewed. The reviews included an assessment of potential storm water impacts and an evaluation of the planned construction and post-construction BMPs.

The 2015 Madison County Drinking Water Festival was held May 12-13, 2016 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 2016 festival hosted more than 1,450 fourth graders from Huntsville City Schools, Madison County Schools, and Madison City Schools.

Following the 2016 event, the City committed to supporting the 2017 Madison County Drinking Water Festival, planned for May 2017. 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. Eleven (11) 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 3, 2015 and April 30, 2016 and collected approximately 926 pounds of used or expired medications. During the event thirty (30) of each of the recycling and the hazardous waste disposal brochures were distributed to the public.

Program Evaluation

During the 2015-2016 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 2015-2016 reporting period that further expands the public education program. The implementation of the Storm Water User Fee and the associated Storm Water User fee 5 Year Plan will allow the City to pursue additional public education and involvement initiatives such as the Madison County Drinking Water Festival, Madison Chamber Business Expo and Kid's Day and the Madison Street Festival.

4.2.2 General Discussion

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

The 2015-2016 reporting period was the first 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 estimated attendance at the festival was approximately 3,500. The attendance during the 2015 Madison Street Festival was estimated at 15,000 due to rain. 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 4th of July celebration. During the reporting period, the City prepared approximately 1,750 reusable shopping bags 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 bags 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, and the

EPA "After the Storm" brochures at the Street Festival and the Business Expo. The 2015 Madison Street Festival was held on October 3, 2015, and the Madison Chamber Business Expo and Kid's Day was held on July 23, 2016, during the 2015-2016 reporting period.

The 2015-2016 reporting period was the second year during which the City participated in the Madison County Drinking Water Festival. The Drinking Water Festival provides an opportunity to reach approximately 2,000 students and partner with other stakeholder organizations.

The 2015-2016 reporting period was the first year during which the City participated in the Clear Water Alabama Seminar and Field Day. The City of Madison was the host city for the event and co-sponsors with the City of Huntsville and Madison County. The Clear Water Alabama Seminar and Field Day allowed the City of Madison to work with other stakeholder organizations and showcase some of their active projects.

To provide additional opportunities for public involvement, the City worked with an Eagle Scout to erect bat houses along the Bradford Creek Greenway and Trail. The City has also spoke with Boy Scouts 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 2015-2016 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 2016 SWMPP.

4.3 Illicit Discharge Detection and Elimination

4.3.1 *Activities Completed / In Progress*

During the October 1, 2015 to September 30, 2016 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 2015-2016 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 2015-2016 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 March 2016 to August 2016, S&ME, Inc. performed stream-walking activities on 19.09 miles of waterbodies within the Madison City limits. A total of 139 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 139 outfalls identified during the reporting period. Dry-weather flows were observed at fifteen (15) 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 139 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 polices in the 2016 SWMPP.

One (1) illicit discharge was reported to the City during the reporting period. The one report, received

October 2, 2015 was handled by Gary Chynoweth, City Engineer and Gina Romine, ADEM Compliance Administrator.

Corrective Actions

One (1) illicit discharge was reported to the City during the reporting period. The one report, received October 2, 2015, pertained to a biodegradable machine coolant and a report was provided by the business.

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 2015-2016 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. All but one complaint pertained to drainage and was transferred to Public Works. The other complaint required public education and door hangers were ordered to address issues such as these in the future.

Municipal Employee Training

IDDE awareness training was conducted on September 28, 2016. Thirty-four (34) municipal employees participated, including representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, the Parks and Recreation Department, and the Fire 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 six (6) waterbodies within the Madison City limits. As a result of the stream-walking effort, 139 outfalls were identified and inspected. Fifteen (15) 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 2015-2016 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 2016 SWMPP.

4.4 **Construction Site Storm Water Runoff Control**

4.4.1 *Activities Completed / In Progress*

During the October 1, 2015 to September 30, 2016 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 2015-2016 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 began an online refresher course in September of 2015 and expects to be 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. In addition to Mr. Ahonen and Ms. Romine, the City had five (5) additional employees receive Qualified Credentialed Inspector (QCI) certification during the 2015-2016 reporting period. City Engineer, Gary Chynoweth, ADEM Compliance Administrator, Gina Romine and Public Works Director, Kent Smith also attended an Erosion and Sediment Control Update training provided by Auburn University along with two members of City Council, Ronica Ondocsin and Gerald Clark.

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 5,165 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, twenty-six (26) 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 eleven (11) 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, one (1) stop work orders were issued to qualifying construction sites that were identified as operating without an NPDES permit. The one (1) site obtained coverage under the Alabama Construction General Permit and work was allowed to resume. The unpermitted site was reported to ADEM and approved the City's process to shut down construction activity.

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

4.4.2 *General Discussion*

During the 2015-2016 reporting period, observations of construction storm water BMPs were made in conjunction with other routine construction inspections such as pre-construction meetings, general inspections, grading inspections, clearing/ grubbing inspections, utility work inspections, proof rolls, landscape inspections, drainage complaints, and neighborhood paving inspections. The results of the BMP observations are recorded in the same manner as all other construction inspections, unless deficiencies are found, which complicates the record-keeping process. The City intends to implement a BMP inspection form as part of the 2016 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 attended QCI training on November 9, 2015 and November 17, 2015. These five (5) employees will notify the ADEM Compliance Administrator of deficiencies noted during routine building inspections or project inspections. 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 2015-2016 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 2016 SWPPP.

4.5 Post-Construction Storm Water Management

4.5.1 Activities Completed / In Progress

During the October 1, 2015 to September 30, 2016 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 2015-2016 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 June 2006. During the reporting period, twenty-six (26) 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 YMCA, Garner Street north and south, Cedar Cove retro-fit, Waterford Manor Lake and final inspections were conducted. Burgreen Village, Phase 1, Burgreen Farms, Phase 1, Cedar Cove, Phase 1, Hilltop Ridge, Phase 1, Stone Brook, West Haven, Phase 3A, Advanced Auto Parts, Dairy Queen, Midtown Marketplace, Payless No. 3, and Tri-Share 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 twenty-two (22) 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 May 2017. During the 2014-2015 and 2015-2016 reporting period, the City identified potential obstacles and legal issues that will need to be addressed prior to development of the post-construction ordinance.

Part II.B.5.5 of the Individual Phase II Permit states that the City must maintain or require the developer, owner, or operator to maintain records of post-construction inspections and maintenance activities. During the reporting period, the City maintained records of the post-construction BMP inspections performed. 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 May 2017, the date required by the Individual Phase II Permit.

As of the date of this report, the City has implemented a Storm Water User Fee 5 Year Plan to retrofit existing structures or begin new projects that will meet the new post-construction criteria. The 5 Year Plan was presented to the City Council during adoption of the FY2016 budget and includes specific outlays for water quality improvement projects across the MS4 area. The projects were selected based on expected impact and available funding. An updated Storm Water User Fee 5 Year Plan was presented to City Council during the adoption of the FY2017 budget process.

4.5.3 *Status*

The Post-Construction Storm Water Management strategies implemented during the 2015-2016 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 2016 SWMPP.

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

4.6.1 *Activities Completed / In Progress*

During the October 1, 2015 to September 30, 2016 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 2015-2016 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 twelve (12) municipal facilities were identified on the inventory.

Pollution Prevention

To reduce the amount of litter, floatables, and debris entering the MS4 from municipal operations, the City contracted Sweeping Corporation of America to provide street sweeping services following storm events and to sweep 173.6 lane miles of curb and gutter roads. Street sweeping was accomplished following the January 22-23, and February 9 winter storm events and tracked by the Public Works Department and the ADEM Compliance Administrator. Approximately 11.83 tons of the 21.5 tons of sand, gravel, and salt mix used to prepare roads during winter weather was removed by street sweeping following the storm events and approximately 93.59 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 installed at Zierdt Road, to prevent clogging of a culvert crossing that was causing local flooding and to remove floatable debris from the stream during the 2015-2016 reporting period. The Public Works Department is responsible for collection and disposal of the removed waste.

Standard Operating Procedures

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

Pesticide, Herbicide, and Fertilizer (PHF) application within the City of Madison is currently performed by the Public Works Department under NPDES General Permit ALG870034. A Pesticide Discharge Management Plan (PDMP) is currently in place and was updated in September of 2015. Standard Operating Procedures for PHF application, storage, disposal, and equipment maintenance are included in the existing PDMP. During the reporting period, the Public Works Department continued to implement the PDMP.

Inspection Program

During the reporting period, all twelve (12) municipal facilities were inspected for good housekeeping practices. The inspections were recorded on the Site Evaluation Form and pictures were taken during the inspection.

Employee Training

Municipal Pollution Prevention training was conducted on September 28, 2016 and thirty-four (34) municipal employees participated in the training. The attendees included representatives from the Engineering Department, the Building Department, the Public Works Department, the Police Department, the Parks and Recreation Department, and the Fire 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 FY2016 budget and includes specific outlays for water quality improvement projects across the MS4 area.

The City has increased the number of structural controls it maintains from three (3) to twenty-two (22). 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 are were made on all twenty-two (22) 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 678 acres of post development land to pre-development hydrology, reduced the floodplain by an estimated 130 acres, developed 7.45 acres of standing water ponds that will revert to wetland conditions and the City has placed a trash rack over a drainage inlet that collects floatable debris from 241 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, equipment storage, used oil management, and chemical storage. The City plans to develop SOPs or BMP Plans for the Fire, Public Works, Parks and Recreation and Building Departments by September 30, 2017.

The street sweeping implemented during the 2015-2016 reporting period resulted in the collection of approximately 11.83 tons of sand, gravel, and salt mix used to prepare roads during winter weather events and 93.59 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 2015-2015 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 2016 SWMPP.

5.0 SWMPP Implementation Status and Proposed Changes

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

The City of Madison currently revised the Storm Water Management Program to address the requirements of the Individual Phase II Permit. During the 2015-2016 reporting period, the City contracted S&ME to assist with the preparation of the new Storm Water Management Program Plan. S&ME has worked closely with the ADEM Compliance Administrator and the City Engineer to develop an effective, practicable program for the management of storm water within the Madison MS4.

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

6.0 Summary of Inspections and Enforcement Actions

6.1 Inspections

- 139 outfalls were identified and inspected during the reporting period.
- Fifteen (15) dry-weather flows were screened and determined to have no indicators of illicit discharges.
- 5,165 construction inspections were conducted. BMPs were observed during each construction inspection.
- BMPs were observed at seven (7) Priority Sites a minimum of once per month.
- Twenty-two (22) structural controls were inspected to determine they were functioning properly.
- Twelve (12) municipal facilities were inspected for good housekeeping practices.

6.2 Enforcement Actions

- Four (4) litter enforcement actions were taken.
- One (1) Stop Work Order was issued to a qualifying construction site operating without NPDES construction permits.

6.3 Corrective Actions

- One (1) illicit discharges were reported and managed by The Engineering Department. The one report, received October 2, 2015, pertained to a biodegradable machine coolant and a detailed report was provided by the business on how the issue was resolved.
- The one (1) construction site issued a Stop Work Orders obtained NPDES permit coverage and no additional enforcement measures were required.
- The City received eleven (11) 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 2015-2016 reporting period, the City of Madison significantly increased the number of Public Education activities in which the City participated, as well as the funding for Public Education efforts.

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

- The City has developed a storm water webpage for the purpose of disseminating information on the City's Storm Water Management Program. The webpage provides information on the Storm Water User Fee and provides access to the Storm Water Management Program Plan, the Storm Water User Fee 5 Year Plan, the Water Quality Improvement Plan Map, and the most recent Annual Report. Website traffic grew 828% from FY2015 to FY2016.
- The City is continuing to educate engineers, contractors, and developers through increased construction storm water enforcement, including audits of active sites by the ADEM Compliance Administrator.
- The City recently performed storm water outreach at the annual Madison Street Festival for the first time in the festival's history. The 2015 festival was held on October 3, 2015. The ADEM Compliance Administrator and City Engineer distributed approximately 800 reusable bags filled with storm water educational information and color-changing cups branded with the Madison storm water logo. The City also participated in the Madison Chamber Business Expo and Kid's Day where approximately 300 reusable bags and color-changing cups were distributed. The City also participated in the 2016 Madison Street Festival held October 1, 2016.
- The City sponsored the 2016 Madison County Drinking Water Festival. The festival was held May 12-13, 2016 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 2016 Fiscal Year, the City of Madison budgeted \$299,000 for the implementation of the storm water program, an increase of \$181,500 over the previous fiscal year.

Table 8-1 FY2016 Storm Water Program Budget

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

As previously discussed, the 2016 Fiscal Year budget includes funding for Public Education and Outreach, with specific outlays for the Madison County Drinking Water Festival, the Madison Street Festival, the Madison Chamber Business Expo, the Water Wheels educational trailer, and informational signage. This is the first year that public education has been specifically included in the budget. The total amount allocated to public education alone in FY2016 exceeds the amount allocated to the entire storm water program in FY2014.

The FY2016 budget also included additional funding for preparation of the Phase II SWMPP, further ORI activities, stream maintenance, flood studies, a street sweeping program including street sweeping for storm and event cleanup, and water quality improvement projects.

Table 8-2 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	\$3,050
Department of Revenue / ADEM to Administer Program	\$14,949
Yearly Contingency for Environmental Emergencies	\$20,000
Total FY2016 MS4 Storm Water Budget	\$301,999

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 FY2016 was \$299,000. The City began receiving revenue from the Storm Water User Fee in November 2015. The total expected revenue from the Storm Water User fee during FY2017 is 302,000.

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.

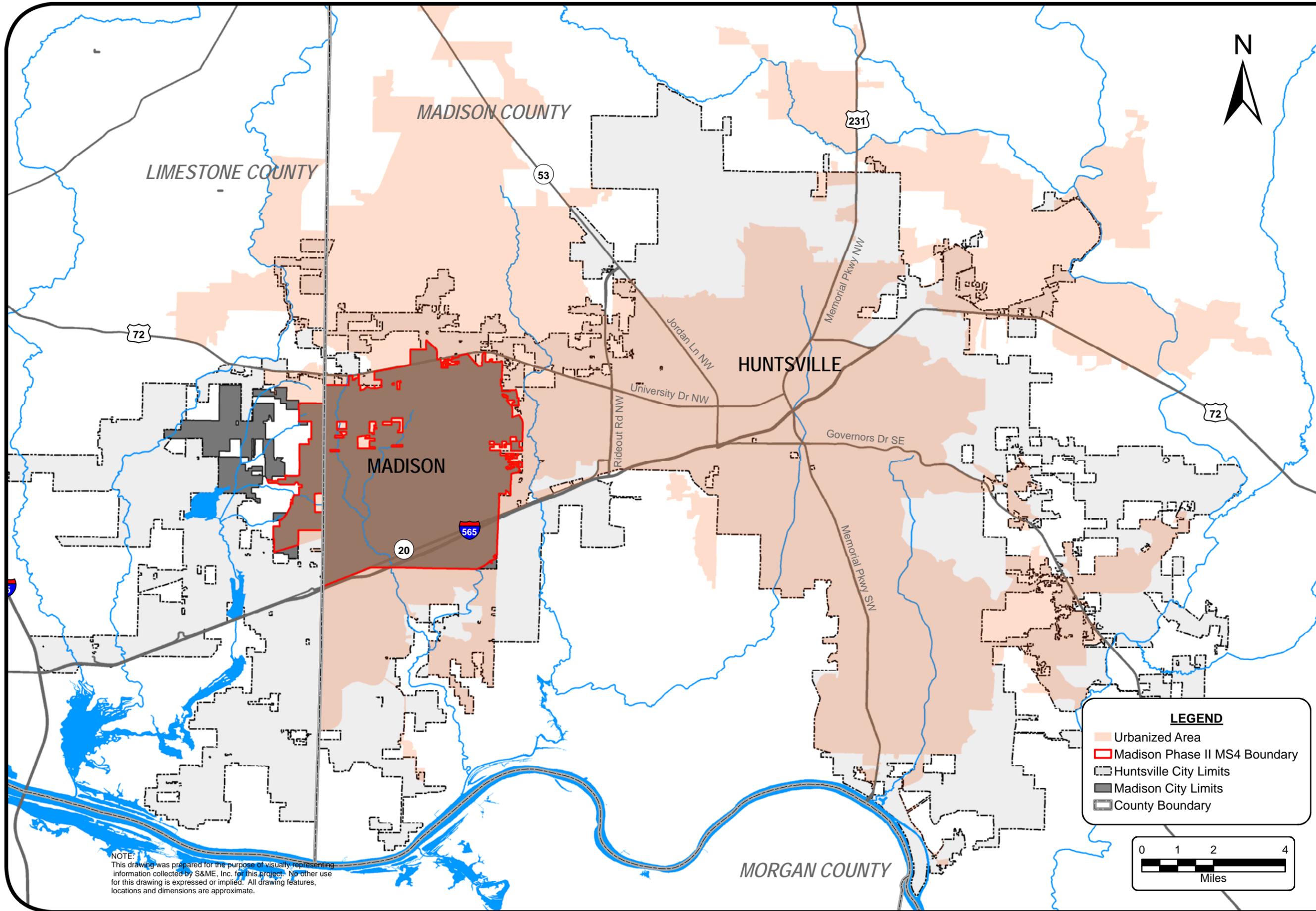


9.0 Agency Certification

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

Date



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.

DATE: 09/30/16

SCALE: 1:160,000

NPDES NO: ALS000014

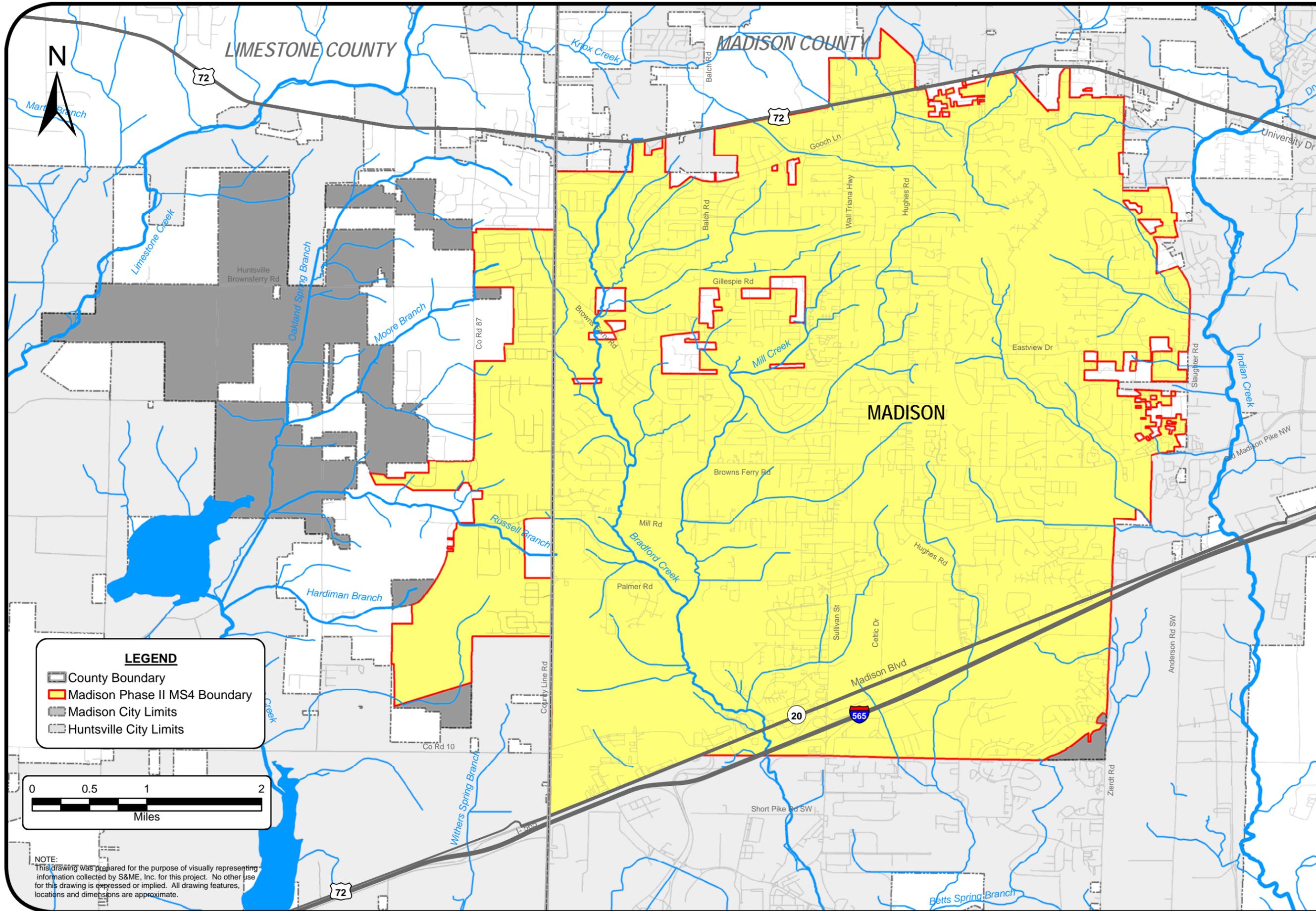
CITY OF MADISON

ALS000014 PERMITTED AREA

MUNICIPAL SEPARATE STORM SEWER SYSTEM
 CITY OF MADISON, ALABAMA

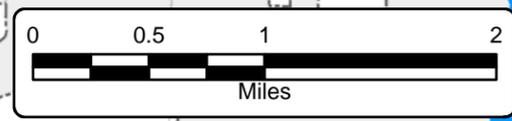
FIGURE NO.

1



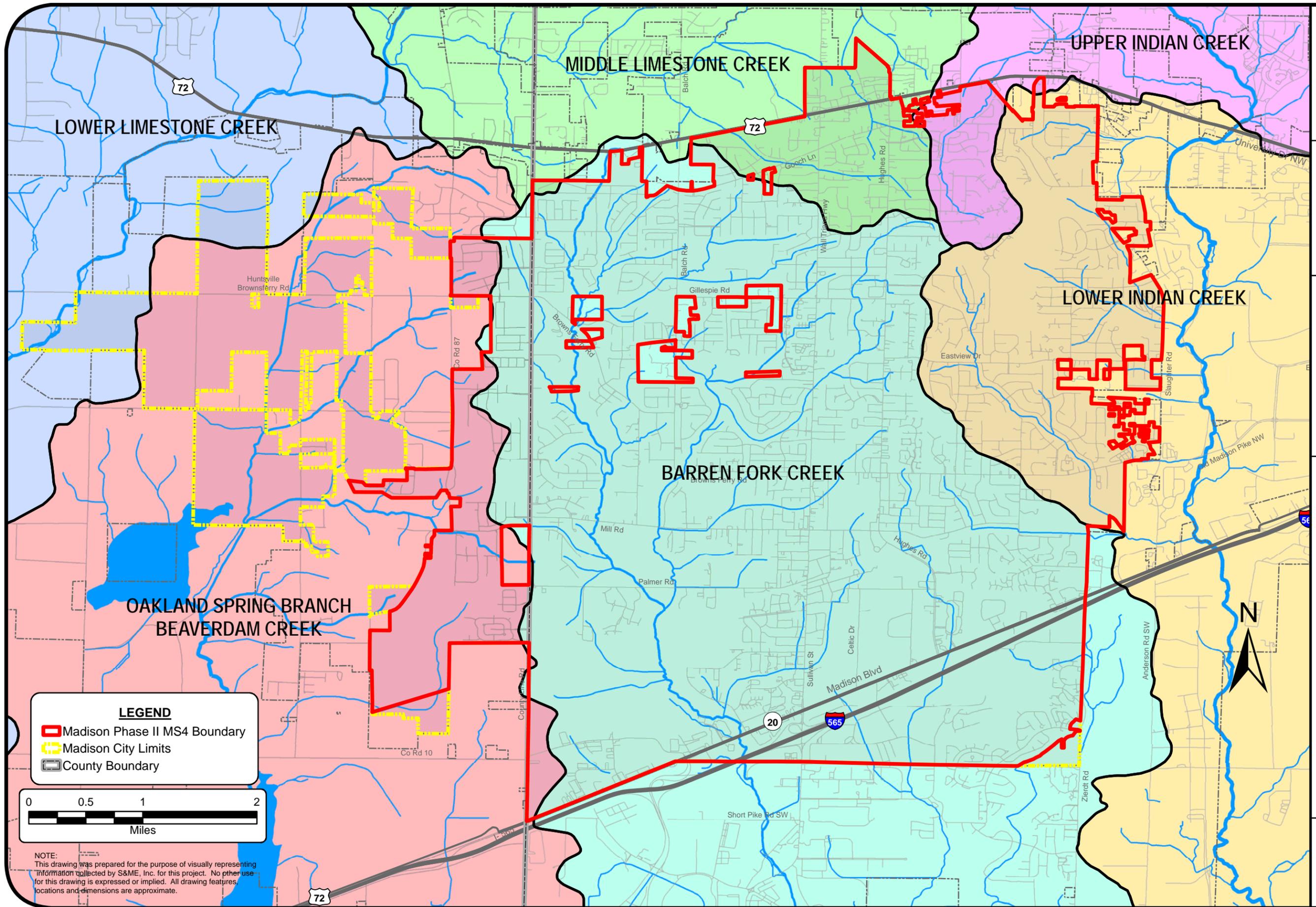
LEGEND

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



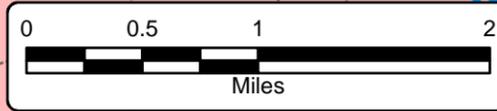
NOTE:
 This drawing was prepared for the purpose of visually representing information collected by S&ME, Inc. for this project. No other use for this drawing is expressed or implied. All drawing features, locations and dimensions are approximate.

DATE: 09/30/16	
SCALE: 1:50,000	NPDES NO: ALS000014
CITY OF MADISON	
MADISON PHASE II MS4 AREA	
MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA	
FIGURE NO.	
2	



LEGEND

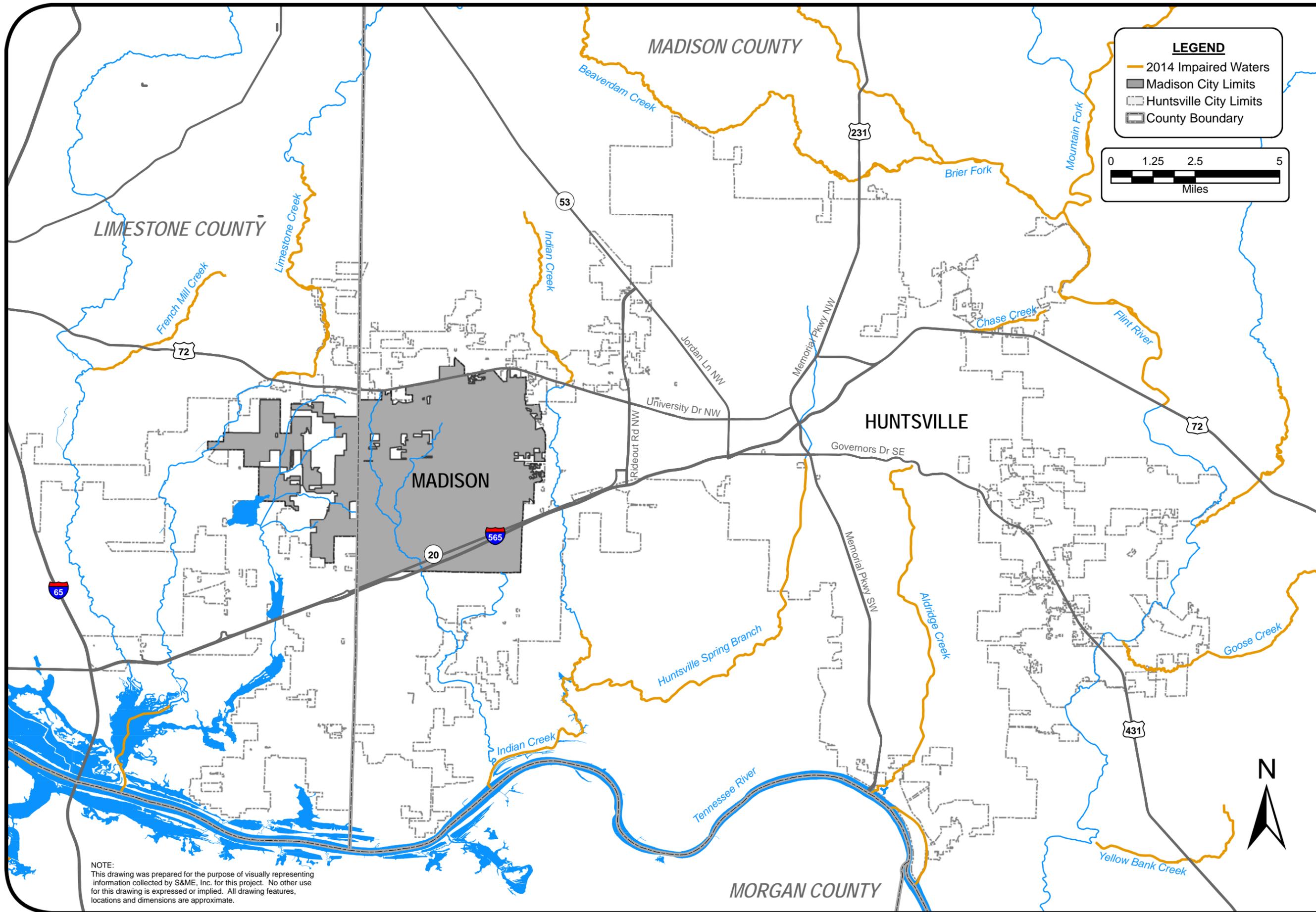
- ▭ Madison Phase II MS4 Boundary
- ▬ Madison City Limits
- ▬ County Boundary



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.

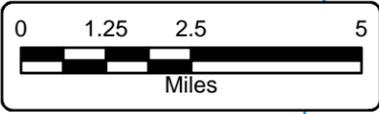
HUC 12 WATERSHEDS MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA	CITY OF MADISON
DATE: 09/30/16	SCALE: 1:50,000
FIGURE NO.	NPDES NO: ALS000014

3



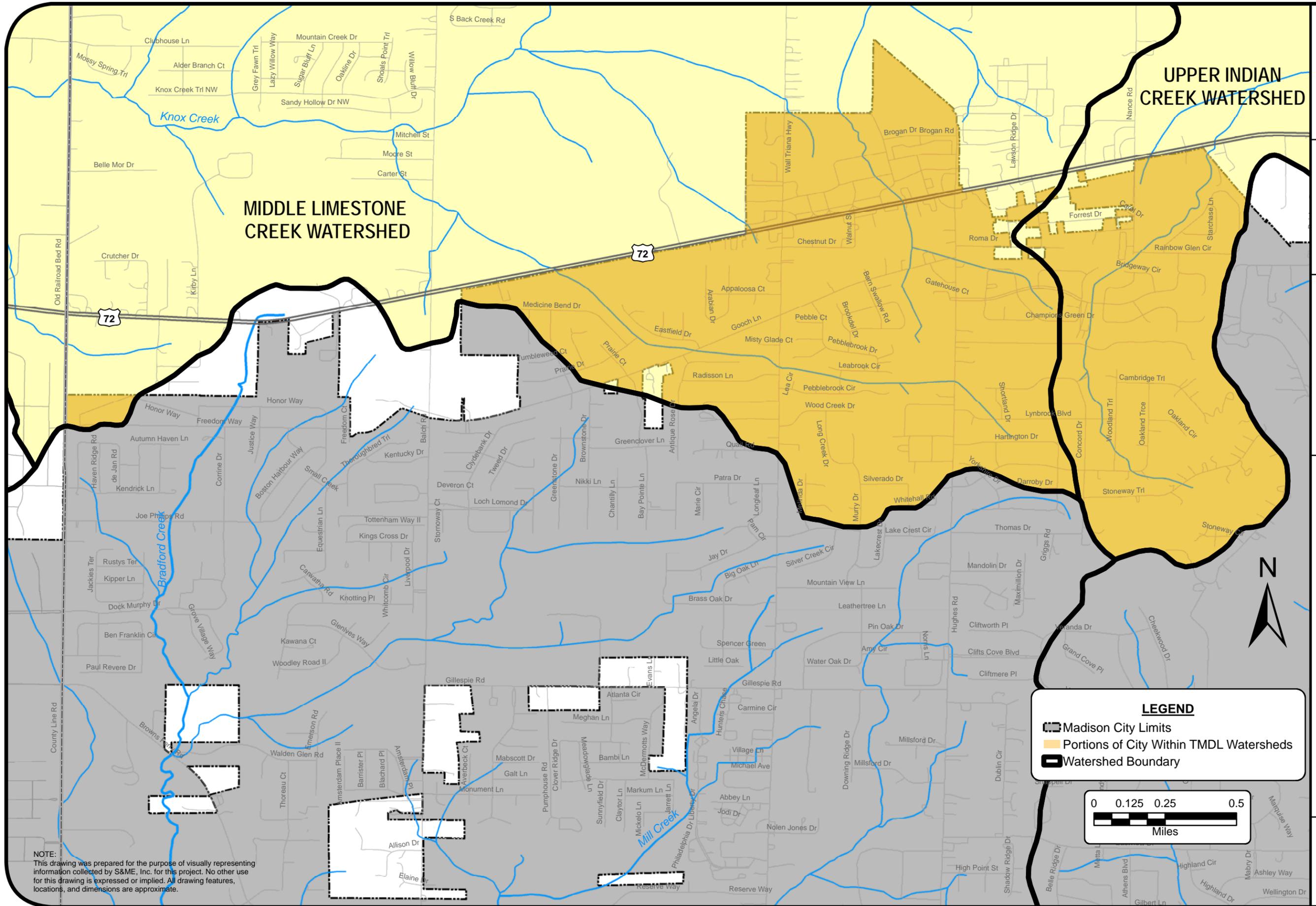
LEGEND

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



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.

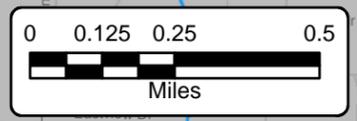
CITY OF MADISON	DATE: 09/30/16
ALS000014 IMPAIRED WATERBODIES	SCALE: 1:170,000
MUNICIPAL SEPARATE STORM SEWER SYSTEM CITY OF MADISON, ALABAMA	NPDES NO: ALS000014
FIGURE NO.	4



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.

LEGEND

- Madison City Limits
- Portions of City Within TMDL Watersheds
- Watershed Boundary



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	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Stream cleanup events	YES	The City spoke with local leaders of the Boy Scouts of America to determine if they would participate.	The City will continue communication with local leaders of the Boy Scouts of America 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	5 Super Swamp Booms were purchased in Dec. 2015. A trash rack was installed at a culvert crossing on Zierdt Road during the reporting period.	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. 1,434.25 bags (39 gallon bags) of trash collected.	The City will continue to require the removal and reporting of trash collection through the City Landscape Maintenance Contract.	
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	4 litter enforcement actions taken	Code Enforcement will continue to respond to complaints regarding trash or litter.	
7	Prevention through construction site inspections	YES	5,165 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.

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

STRATEGY NO.	STRATEGIES	MET	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
8	Temporary protection at public events	YES	4 Special Events Permits issued 1 Parade Permit issued 2 Race Permits issued 8 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	4 Special Events Permits issued 1 Parade Permit issued 2 Race Permits issued 8 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	4 Special Events Permits issued 1 Parade Permit issued 2 Race Permits issued 8 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 identified 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 can be identified.	
12	Provide additional trash receptacles in high-trash areas	YES	5 additional receptacles were installed on Main Street in downtown Madison	Additional trash receptacles will be provided in high-trash areas once identified.	

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

STRATEGY NO.	STRATEGIES	MET	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Maintain the Storm Water Management Program Webpage.	YES	185 hits were recorded on the Storm Water Webpage. An increase of 828% from the previous reporting period	The City will continue to maintain the Storm Water Management Program Webpage on the City's website.	www.madisonal.gov/stormwater
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 2015-2016 Annual Report will be posted by February 28, 2016 .	
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. Storm drain markers were 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 2016.	The Madison Beautification and Tree Board 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 1,250 reusable shopping bags filled with storm water educational materials and reusable cups for children that had the City of Madison Clean Water logo during the reporting period.	The City will continue to promote a storm water awareness logo on promotional materials and handouts. Information in Council Newsletters, Press Releases, and News Flashes.	
7	Educate engineers, developers, and contractors through plan review and permitting of new construction and development.	YES	26 construction plans were reviewed	The City will conduct plan reviews for proposed development and re-development.	Preliminary Plat Checklist

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

STRATEGY NO.	STRATEGIES	MET	2015-2016 IMPLEMENTATION STATUS	2016-2017 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 2016 Madison Co. Drinking Water Festival held May 12-13, 2016 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 2015 Madison Street Festival held Oct. 3, 2015 and The Chamber of Commerce Business Expo and Kid's Day held July 23, 2016	City personnel will support the 2017 Madison County Drinking Water Festival. City Engineer and ADEM Compliance Administrator manned a booth at the 2016 Madison Street Festival, Oct. 1, 2016 and distributed over 1,500 reusable shopping bags, hacky sacks 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 11 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 FY2016.	The Storm Water Management Program Budget was approved for FY2017.	

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

STRATEGY NO.	STRATEGIES	MET	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement an IDDE ordinance.	YES	The ordinance was adopted on April 14, 2015 . 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	139 outfalls were identified 19.09 miles of stream were walked	The City will provide for stream-walking and ORI of Mill Creek and its tributaries, totaling approximately 21.5 miles.	
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	139 outfalls were inspected	The City will provide for dry weather inspections of outfalls to Mill Creek and its tributaries.	
6	Screen observed dry weather flows	YES	15 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	2015-2016 IMPLEMENTATION STATUS	2016-2017 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	1 complaint was received 1 complaint was addressed 1 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 September 28, 2016 . 34 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	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement an Erosion and Sediment Control Ordinance.	YES	The ordinance was adopted on April 14, 2015 . 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 September 27, 2016 . 5 additional employees became Qualified Credentialed Inspector certified.	The 7 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 during the reporting period	The City will maintain a list and GIS map of all active construction sites within the MS4 boundary.	
4	Conduct regular inspections of construction sites within the MS4.	YES	5,165 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	7 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	26 plans were reviewed 2 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 April 14, 2015 .	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	2015-2016 IMPLEMENTATION STATUS	2016-2017 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	1 unpermitted sites were reported to ADEM. The City issued 1 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 this article 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 an ADEM permit prior to the start of construction	The City will notify ADEM of of any person who has violated and continues to violate this article 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	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Develop and implement a program to address post-construction storm water by April 30, 2017 .	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	26 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	11 inspections of a completed post-construction BMPs were conducted. 25 structural control inspections 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	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
8	The City will perform maintenance and repairs to post-construction BMP's and structural controls as needed.	YES	11 BMPs were identified as needing maintenance on structural controls. 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	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
1	Maintain an inventory of all municipal facilities	YES	12 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 11.83 tons of debris was collected from the winter storm events and 93.59 tons of debris was removed during the annual sweep.	The City has adopted the Storm Water User Fee 5 Year Plan with the FY2017 Budget that includes street sweeping	
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 also installed a trash rack at a culvert crossing on Zierdt Road.	Additional trash racks will be installed during FY2017 and the 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 during the 2014-2015 reporting period. 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 intends to develop SOPs or BMP Plans for all municipal facilities by September 30, 2017.	The City intends to develop SOPs or BMP Plans for all municipal facilities by September 30, 2017.	
6	Conduct inspections of municipal facilities for good housekeeping practices	YES	12 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 September 28, 2016. 34 municipal employees attended.	The City will continue to train appropriate personnel on good housekeeping practices.	

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

STRATEGY NO.	STRATEGIES	MET	2015-2016 IMPLEMENTATION STATUS	2016-2017 PROPOSED EFFORTS	COMMENTS / CHANGES
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 and the City made changes to their 5 Year Storm Water Management Program Plan from their findings	The City will continue implementation of the 5 Year Storm Water Management Plan.	
9	Evaluate the feasibility of retro-fitting existing structural controls to provide additional pollutant removal	YES	22 structural controls were evaluated for retro-fitting or modification	The City will continue implementation of the 5 Year Storm Water Management Plan.	