

MADISON COUNTY

STORMWATER MANAGEMENT PROGRAM PLAN

2017

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1 INTRODUCTION TO STORMWATER REGULATIONS

1.1 Background of Regulations

Since the passage of the Clean Water Act (CWA), the quality of our nation's waters has improved dramatically. Despite the progress, however, degraded waterbodies still exist. From a national perspective, the impacts of stormwater runoff are the most common reason for impairment of water quality in our streams, rivers, lakes and estuaries. As a result of this awareness – the seriousness and magnitude of stormwater impacts – more federal and state stormwater management programs were established.

Phase I of the U.S. Environmental Protection Agency's (EPA) Municipal Stormwater Program was promulgated in 1990 under the CWA. Phase I relied on the National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from: (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater, (2) construction activity disturbing 5 acres of land or greater, and (3) ten categories of industrial activity.

The Phase II Program, published in 1999, expanded the Phase I Program by requiring additional operators of "small" MS4s and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff.

1.2 Phase II Stormwater Permit Coverage

In Alabama, the NPDES permit program is administered by the Alabama Department of Environmental Management (ADEM). The Phase II Rule requires the following to apply for NPDES permit coverage:

- Operators of small MS4s located in "urbanized areas" as delineated by the Bureau of the Census,
- Operators of small MS4s so designated by ADEM due to their discharges causing, or having the potential to cause, an adverse impact on water quality, and
- Operators of small construction activities that disturb equal to or greater than 1 (one) and less than 5 (five) acres of land.

Once obtained, the permit authorizes stormwater discharges to the waters of the state, as long as the operators implement the required permit components.

1.3 Permit Requirements for Small MS4s

The Phase II Stormwater Program was meant to address small municipal separate storm sewer systems (MS4s) located in urbanized areas and some small densely populated areas not covered by the Phase I Program. Unlike the Phase I MS4 Program, the Phase II MS4 Program involved the issuance of a general permit.

The permit requires operators of regulated small MS4s to develop, implement, and enforce a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants from their MS4s to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. At a minimum, the SWMP must employ control measures to address the following six areas:

- Public Education and Outreach on Stormwater Impacts,
- Public Involvement/Participation,
- Illicit Discharge Detection and Elimination (IDDE),
- Construction Site Stormwater Runoff Control,
- Post-Construction Stormwater Management in New Development and Redevelopment, and
- Pollution Prevention/Good Housekeeping for Municipal Operations.

To assess the effectiveness of the program, the permit requires an annual review and report of the Stormwater Management Program. The SWMP must be revised, as necessary, to maintain compliance with the permit requirements and must be implemented on all new areas added to the municipal separate storm sewer system. In the annual report, completed and planned activities must be documented, as well as any proposed changes to the program.

The full text of the current NPDES General Permit can be viewed at the Madison County Public Works Department, on the Madison County website, or on ADEM’s website.

2 OVERVIEW OF MADISON COUNTY’S STORMWATER MANAGEMENT PROGRAM

The U.S. Census Bureau defines urbanized areas based on population density and total population for an area. Based on the 2000 Census, part of Madison County was classified as being in an urbanized area. Therefore, the EPA and ADEM designated that area as a regulated small MS4 and required the County to comply with the Phase II Municipal Stormwater Program regulations – obtain coverage under the NPDES General Permit and develop a Stormwater Management Program (SWMP) – to reduce the contamination of stormwater runoff from the MS4 to the maximum extent practicable.

2.1 MS4 Coverage Area

Madison County’s MS4 boundaries are located within the Huntsville, Alabama Urbanized Area (Figure 1). The permit coverage area, based on the figure, is the area within the green boundary that is in: (1) the unincorporated Madison County areas, shown in white, (2) the Meridianville area, (3) the Moores Mill area, (4) the Hazel Green area and (5) the Harvest area minus the Alabama Department of Transportation’s (ALDOT) MS4 area along all state highways (not shown on map). A larger map is provided in Appendix C, as well as maps depicting ALDOT’s coverage area.

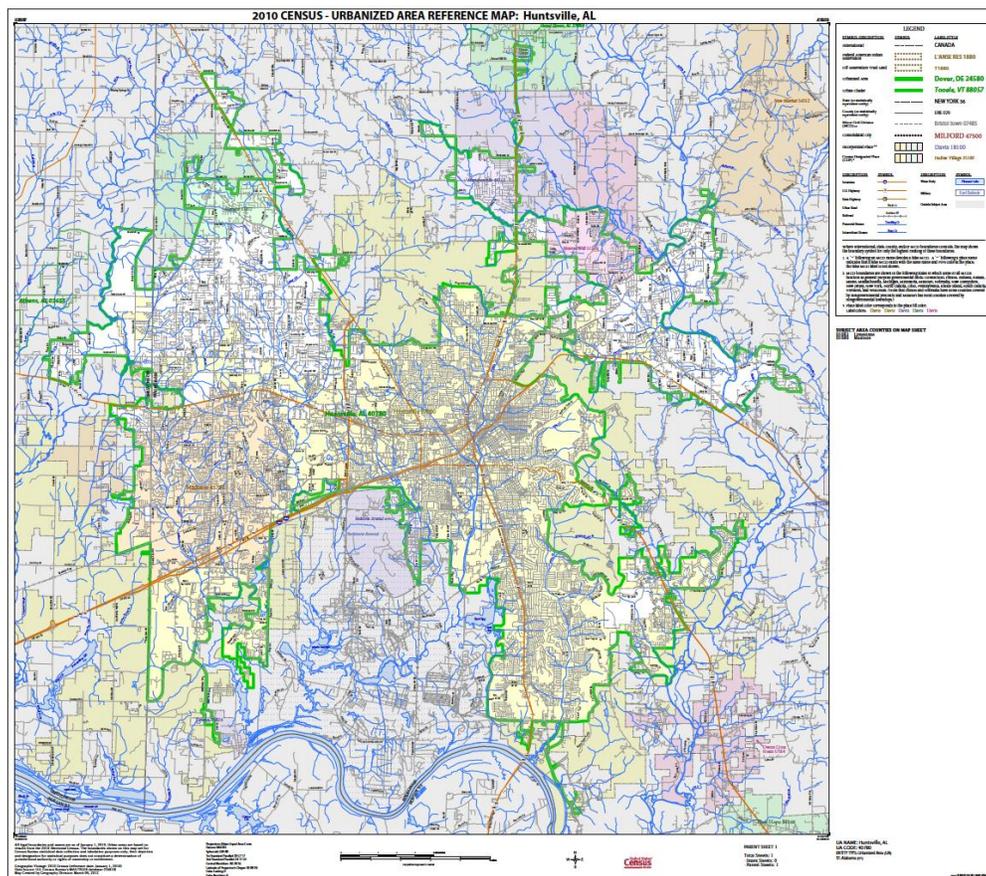


FIGURE 1: 2010 Census Urbanized Area Map of Huntsville, Alabama

2.2 NPDES Permit Status

After the finalization of the Phase II Regulations, Madison County was defined as a Phase II community and required to submit a permit application for General NPDES Permit No. ALR040000 by March 10th, 2003. The effective date of coverage began on May 14, 2003 and was scheduled to expire on March 9, 2008. Madison County reapplied for permit coverage on August 30, 2007. After an administrative extension of nearly three years, ADEM reissued the General Permit for discharges from regulated MS4s. A second permit term became effective on February 1, 2011 and was scheduled to expire on January 31, 2016. A third permit term was applied for in October 2015. After an administrative extension, ADEM reissued the General Permit effective October 1, 2016 through September 30, 2021.

Madison County's progress in program implementation is documented in annual reports to ADEM. Annual Reports, as well as permit applications and supporting documents, can be viewed at Madison County's Public Works Department upon written request. The most current annual report can also be viewed on the Madison County website.

2.3 Development of Stormwater Management Program and Plan

Madison County's SWMP is comprised of specific actions that will be taken over a five-year period to aid in the efforts to protect water quality and reduce pollutant discharges from the County's MS4. This SWMP Plan details the programs and activities, referred to as BMPs, chosen to meet the regulatory requirements, as well as their associated measurable goals and implementation schedules. **The Public Works Department is responsible for overall program coordination and/or implementation, as well as documentation and annual reporting; see Appendix A for program contact information.**

2.3.1 Best Management Practices Selection Process

Madison County has a history of being proactive when it comes to environmental issues. Many local and governmental organizations and committees, as well as County departments, already had pollution prevention programs in place prior to the Phase II Rule. Consequently, the first step in the program development was to identify existing programs and determine if they would address any of the six minimum control areas. Secondly, if any of the programs deemed valuable for permit compliance were managed by a non-County entity, partnerships were established. After compiling the chosen activities, additional BMPs were selected to enhance the existing programs and to satisfy unmet requirements of the Phase II MS4 General Permit. The supplemental BMPs were also evaluated based on their ability to satisfy at least one, and preferably more, minimum control measure condition.

As the permit term progresses and new permits are issued, adjustments to the SWMP may become necessary. Therefore, BMPs may be refined to meet any new stormwater regulatory requirements and to ensure effectiveness.

2.3.2 Measurable Goals Selection Process

In accordance with the permit requirements, specific measurable goals were developed for each BMP. Measurable goals are objective markers used to evaluate the effectiveness of the SWMP toward protecting water quality and reducing pollutants to the maximum extent practicable. In general, goals for existing BMPs were chosen to monitor how often, or where, the BMPs will be implemented; whereas goals for new BMPs were set to track actual BMP implementation progress until complete. In cases where the SWMP must address discharges to impaired waterbodies, those BMP measurable goals must also assess environmental improvement.

2.3.3 Establishment of Implementation Schedule

Primarily, for BMPs carried over from the previous permit term, the schedules simply document the BMPs' continual performance over the current permit term; and for the new BMPs, the schedules reflect a steady

implementation process of the BMP over the current five-year permit cycle. In some cases, however, the permit set the time limits on the BMP implementation.

Each time the permit cycle is renewed, the SWMP Plan will launch new schedules for the continual implementation of effective BMPs and for the phasing-in of new BMPs chosen by Madison County to improve the SWMP or required by new regulations.

3 STORMWATER MANAGEMENT PROGRAM COMPONENTS

As stated in a previous section, the permit requires operators of regulated small MS4s to develop, implement, and enforce a stormwater management program (SWMP) with the following major components:

- A. Public Education and Outreach on Stormwater Impacts,
- B. Public Involvement on Stormwater Impacts,
- C. Illicit Discharge Detection and Elimination (IDDE) Program,
- D. Construction Site Stormwater Runoff Control,
- E. Post-Construction Stormwater Management in New Development and Redevelopment, and
- F. Pollution Prevention/Good Housekeeping for Municipal Operations.

For each of the major program components, this section describes the permit requirements, the selected BMPs to satisfy the permit, and the schedule plan to implement the BMPs. Unless otherwise noted, the Public Works Department is responsible for coordinating and/or implementing the BMPs for each component.

3.1 Public Education and Outreach on Stormwater Impacts

Madison County must implement a public education and outreach program to inform the community about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The program should be designed to reach targeted audiences such as the general public, businesses, and the construction community.

Permit Fulfillment: The following BMPs were chosen for the program.

3.1.1 Stormwater/Pollution Prevention Activity at Annual Drinking Water Festival (BMP – A1)

A stormwater/pollution prevention awareness activity will be included in the Madison County annual drinking water festival. The hands-on activity “Watershed in a Box” will be used to inform attending 4th graders, from all over the County, about stormwater impacts and pollution prevention. Educating school children on stormwater and water quality practices will help promote better public awareness.

3.1.2 Stormwater Education for Local Schools (BMP – A2)

Efforts will be made to deliver stormwater education to the local schools of Madison County. When opportunities arise, deliver educational literature and conduct stormwater/pollution prevention presentations and/or partner with other agencies on their education efforts. Educating school children on stormwater and water quality practices will help promote better public awareness.

3.1.3 Educational Tips and Facts for Annual Drinking Water Report (BMP – A3)

Articles containing tips and facts about stormwater, pollution prevention, nonpoint source pollution, conservation, recycling, etc. will be included in the Madison County Annual Drinking Water Report. Since ADEM already requires the Madison County Water Department to send an annual consumer confidence report to all its customers (approximately 89,000 residents as of November 2016), this educational information will reach most of rural Madison County in a cost efficient manner.

3.1.4 Educational Brochures and Fact Sheets for General Public (BMP – A4)

Educational brochures and fact sheets relevant to the general public will be developed or acquired, displayed at prominent County locations, handed out at County events, and posted on the County website when feasible. As residents do business in the County, such as applying for building/septic tank permits, setting up water accounts or looking at the County website, they will be exposed to stormwater and water quality concepts resulting in more overall public awareness.

3.1.5 Stormwater Education and Regulation Training for Construction Community (BMP – A5)

When opportunities arise, Madison County will help sponsor, or assist other partners to conduct, training seminars for local home builders, contractors and developers. The focus of this stormwater education and regulations training will be to educate local entities about their responsibilities for obtaining, and complying with, construction stormwater permits from ADEM. Since Madison County cannot implement ordinances and, therefore, has very limited authority to enforce regulations, stormwater education is a worthwhile outreach tool.

3.1.6 Educational Outreach Efforts with Local Organizations and Partners (BMP – A6)

When opportunities arise, Madison County will participate in or help sponsor existing stormwater and water quality outreach programs, such as education booths, presentations at local schools, organizational meetings and events. Madison County will partner with local organizations already active in educating the public about stormwater, pollution and conservation issues, and will provide volunteer/funding support when possible. By combining forces, better programs can be developed and more residents can be reached.

3.1.7 Educational Brochures and Fact Sheets for Businesses and Construction Community (BMP – A7)

Educational brochures and fact sheets relevant to the business and construction communities will be developed or acquired. Madison County will make the educational material available at appropriate County offices. When feasible, the material will be posted on the County website. Reminding entities about their stormwater responsibilities and providing information about appropriate Best Management Practices should help reduce the discharge of pollutants.

Table 1: Public Education and Outreach – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
A1	Activity at Drinking Water Festival	General Public (school-age)	Educate county 4 th graders about stormwater impacts and pollution prevention	Educating children promotes public awareness and behavior changes	General/overall awareness
A2	Education for Local Schools	General Public (school-age)	Deliver stormwater education to 28 county schools	Educating children promotes public awareness and behavior changes	General/overall awareness
A3	Articles in Annual Drinking Water Report	General Public	Provide environmental stewardship tips and facts to water department customers	Report already required by ADEM; cost efficient way to reach rural residents	General/overall awareness
A4	Brochures and Fact Sheets for General Public	General Public	Provide stormwater information to residents visiting county offices, events and website	Exposing residents as they do business with county results in more public awareness	General/overall awareness
A5	Training for Construction Community	Construction Community	Train local home builders, contractors and developers about their permit responsibilities	Making effort to train construction community since county has very limited authority to monitor and enforce activities	Awareness of regulations; erosion/sediment
A6	Support Existing Educational Outreach Programs	General Public & School-age	Participate in and help sponsor existing stormwater/water quality programs	Combining forces with active organizations will produce better programs	General/overall awareness
A7	Brochures and Fact Sheets for Businesses/ Construction Community	Businesses/ Construction Community	Provide material about permit responsibilities and BMPs – display at county offices and post on website	Supplying educational info. to companies should help reduce pollutants	Awareness of regs and BMPs; erosion/sediment

Table 2: Public Education and Outreach BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
A1	Include stormwater/pollution prevention activity in annual drinking water festival	C	S	S	S	S
A2	Deliver stormwater education to local schools	C	W	W	W	W
A3	Include articles on stormwater, pollution, recycling, etc. in annual drinking water report	C	S	S	S	S
A4	Display educational brochures at county locations and on county website Update material if needed	C	S S	S	S S	S
A5	Assist other partners with training seminars for local builders, contractors and developers	C	W	W	W	W
A6	Participate in, or help sponsor, existing stormwater and water quality outreach programs	C	W	W	W	W
A7	Display educational brochures at county locations and on county website Update material if needed	C	S S	S	S S	S

C – Complete S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

3.2 Public Involvement on Stormwater Impacts

The SWMP must include ongoing activities for public involvement, and Madison County must, at a minimum, comply with applicable State and local public notice requirements when implementing the program.

Permit Fulfillment: The following BMPs were chosen for the program.

3.2.1 Public Outreach Efforts with Local Organizations and Partners (BMP – B1)

When opportunities arise, Madison County will participate in or help sponsor watershed/stream clean-ups and workshops led by local cleanwater/watershed partnerships and other local organizations. Madison County will partner with local organizations already active in conducting activities to promote public education and involvement and will provide volunteer/funding support when possible. By combining forces, better programs can be developed and more residents can be reached.

3.2.2 Public Notification of Planned Activities (BMP – B2)

Efforts will be made to notify the public of planned activities and ways the public can participate in such activities. Notification methods will include the media, the County website and the annual drinking water report. Public notices should increase overall awareness and will provide more opportunities for involvement.

3.2.3 Support of Local Clean-Up Projects (BMP – B3)

When opportunities arise, Madison County will support local community, roadside, school, etc. clean-up projects. Madison County will supply bags and pick-up services for any residents/volunteers who conduct the clean-up projects and call for assistance. Providing supplies and assistance should encourage clean-up projects.

3.2.4 Public Notification of “Handle With Care” Program (BMP – B4)

Madison County will help promote proper disposal of household hazardous wastes by encouraging residents to participate in Huntsville’s Solid Waste Disposal Authority “Handle with Care” Program. The public will be notified, through the drinking water report and County website, of the items that can be disposed, the collection dates and locations. Public notification of this program will increase the public’s awareness about what types of wastes are harmful and how to properly dispose of them.

3.2.5 Public Involvement in the Development and Review of the SWMP (BMP – B5)

Madison County is currently a part of local advisory committees. When feasible, Madison County will provide copies of the plan and annual reports to these committees for their review and comments. Members’ backgrounds include natural resource and conservation; waterbody and watershed protection; environmental education and monitoring. Groups represented are local, state and federal government agencies; university staff; public and private individuals; business owners and utility staff. Reaching out to the members of these committees will affect a wide range of audiences. In addition, the plan and reports will be posted on the County website to provide another means for public review and input.

3.2.6 Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns (BMP – B6)

State and Madison County Stormwater Program contacts will be included in the Madison County Annual Drinking Water Report, and on the County website, to provide a mechanism for the public: (1) to request a viewing of the SWMP Plan and annual report or to view the plan/report on the website, and (2) to report any stormwater/discharge concerns. Since ADEM already requires the Madison County Water Department to send an annual consumer confidence report to all its customers (approximately 89,000 residents as of November 2016), this outreach tool will reach most of rural Madison County in a cost efficient manner. In addition, posting the information on the County website will provide another means to reach the public. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns a non-compliant construction site within the MS4, the County will use its available enforcement authority to address the problem until it becomes apparent the site will not adhere to these actions, therefore necessitating a request for ADEM’s assistance through the eComplaint System. If the complaint is viable and it concerns an illicit discharge (within the MS4 or entering from an adjacent MS4), Madison County will notify the appropriate agency for assistance – ADEM through the eComplaint System or the Madison County Public Health Department by email/phone. (This BMP also complies with the Illicit Discharge Detection and Elimination component and Construction Site Stormwater Runoff Control.)

Table 3: Public Involvement – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
B1	Support Existing Public Outreach Programs	General Public	Participate in and help sponsor clean-ups and workshops led by local organizations/cleanwater partnerships	Combining forces with active organizations will produce better programs	General/overall; impaired waterbodies
B2	Public Notification of Planned Activities	General Public	Notify public of planned activities and ways they can participate	Activity notification will increase public awareness and involvement opportunities	Public awareness and participation
B3	Support Local Clean-Up Projects	Schools, Communities, Organizations, Concerned Citizens	Supply bags and pick-up services for residents/volunteers conducting clean-up projects	Providing supplies and assistance will encourage clean-up projects	Litter
B4	Public Notification of “Handle with Care” Program	General Public	Advertise Huntsville’s Solid Waste Disposal Authority “Handle with Care” Program (wastes accepted, collection dates and times) – in annual drinking water report and on county website	Promoting the program increases awareness of wastes and proper disposal	Knowledge of wastes; improper disposal of wastes
B5	Public Involvement and Review of SWMP	General Public, Environmental Groups	Provide copies of plan and annual reports to members of committees, and on website, for review and comments	Will reach a wide range of audiences due to backgrounds /groups represented & by making available on website	Public awareness and participation
B6	Publish Stormwater Contact Info and Respond to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers in annual report and on website; investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM; report and website are cost efficient ways to reach rural residents; provide avenue for public involvement –request info/report concerns	General/overall; public participation

Table 4: Public Involvement BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
B1	Participate in, or help sponsor, watershed/stream clean-ups and workshops	C	W	W	W	W
B2	Notify the public of planned activities and ways the public can participate	C	W	W	W	W
B3	Support local community, roadside, school, etc. clean-up projects	C	W	W	W	W
B4	Notify public of “Handle with Care” Program in drinking water report and on website	C	S	S	S	S
B5	Provide copies of plan/reports to members of local advisory committees and on website	C	S	S	S	S
B6	Publish stormwater program contact information in drinking water report & on website	C	S	S	S	S
	Respond to any public requests/concerns	W	W	W	W	W

C – Complete S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

3.3 Illicit Discharge Detection and Elimination (IDDE) Program

Madison County must implement an ongoing program to detect and eliminate illicit discharges into the MS4 service area, to the maximum extent practicable. The program shall, at a minimum:

- (i) Provide a map (updated annually) to include the latitude/longitude of all known outfalls; the names of all waters of the State that receive discharges from these outfalls; and structural BMPs owned, operated or maintained by Madison County;
- (ii) To the extent allowable under State and local law – prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges to the MS4 including escalating enforcement procedures and actions, as well as, requirements for the removal of the illicit discharges and the immediate cessation of improper disposal practices upon identification of the responsible parties;
- (iii) Review the ordinance (or other regulatory mechanism) annually, and update as necessary;
- (iv) Develop a dry weather screening program to detect and address non-stormwater discharges to the MS4 – screen 15% of outfalls once per year with all 100% screened at least once per five years;
- (v) Include procedures for tracing the source of a suspect illicit discharge, for eliminating an illicit discharge, and to notify ADEM of a suspect illicit discharge;
- (vi) Implement a mechanism for the public to report illicit discharges discovered within the MS4 and procedures for appropriate investigation of such reports;
- (vii) Train appropriate personnel on identification, reporting, and corrective action of illicit discharges.

Permit Fulfillment:

The following BMPs were chosen to satisfy permit requirements (i) and (iv) - (vii) above. **State and local laws prohibit Madison County from fulfilling permit requirements (ii) and (iii) above** (see Appendix B). Identified problems will be reported to the appropriate agency for assistance.

3.3.1 Illicit Discharge Detection Training for Madison County Public Works Employees (BMP – C1)

Appropriate County employees will be trained to detect illicit discharges and to report any findings to a Stormwater Management Program representative. Refresher courses will be provided as needed to address changes in procedures, techniques or staffing. Dry weather screening, on-site sewage disposal system failures, illegal dump sites, and likely priority areas will be emphasized. Public works employees will be targeted since they frequent the roads of Madison County and can watch for illicit discharges during their daily work routines.

3.3.2 Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns (BMP – C2)

State and Madison County Stormwater Program contacts will be included in the Madison County Annual Drinking Water Report, and on the County website, to provide a mechanism for the public: (1) to request a viewing of the SWMP Plan and annual report or to view the plan/report on the website, and (2) to report any stormwater/discharge concerns. Since ADEM already requires the Madison County Water Department to send an annual consumer confidence report to all its customers (approximately 89,000 residents as of November

2016), this outreach tool will reach most of rural Madison County in a cost efficient manner. In addition, posting the information on the County website will provide another means to reach the public. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns a non-compliant construction site within the MS4, the County will use its available enforcement authority to address the problem until it becomes apparent the site will not adhere to these actions, therefore necessitating a request for ADEM’s assistance through the eComplaint System. If the complaint is viable and it concerns an illicit discharge (within the MS4 or entering from an adjacent MS4), Madison County will notify the appropriate agency for assistance – ADEM through the eComplaint System or the Madison County Public Health Department by email/phone. (This BMP also complies with the Public Involvement/Participation component and Construction Site Stormwater Runoff Control.)

3.3.3 Storm Sewer Map (BMP – C3)

Madison County will provide a storm sewer map showing the location of outfalls and the names/locations of waters of the State that receive discharges from those outfalls, to the maximum extent practicable. Madison County will update the map by adding any known structural BMPs owned, operated and maintained by the County within the MS4 boundaries. The map will be reviewed annually and updated, when necessary, to reflect any new discharge points and changes. Updated maps will be submitted with annual reports. Map development details, including any revision notes, can be found in Appendix C.

3.3.4 Illicit Discharge Detection and Elimination Plan (BMP – C4)

Madison County will develop and implement an Illicit Discharge Detection and Elimination (IDDE) Plan which will become a part of this SWMPP. The IDDE Plan will provide specifics about the County’s IDDE program, such as outfall screening, procedures for tracing suspect discharges, ADEM/Health Dept. notification, and training. The plan can be found in Appendix I, and the Standard Operating Procedure can be found in Appendix J.

Table 5: Illicit Discharge Detection and Elimination – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
C1	IDDE Training	County Employees	Train public works employees and plan for refresher courses	Public works employees can watch for discharges/disposals as they travel county roads	Septic system failures; illegal dumping/discharge
C2	Publish Stormwater Contact Info and Respond to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers in annual report and on website; investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM; report and website are cost efficient ways to reach rural residents; provide avenue for public involvement –request info/report concerns	General/overall awareness; public participation
C3	Storm Sewer Map	MS4 Operation	Add structural BMPs & outfalls to storm sewer map; review map annually and update as necessary	Method for keeping up with outfalls and structural BMP locations	Outdated data
C4	Implement Illicit Discharge Detection and Elimination (IDDE) Plan	MS4 Operation	Identify priority outfalls; conduct yearly outfall inspections; investigate discharges and complaints; report findings; evaluate program/plan annually and update as necessary; conduct training as needed	To detect and eliminate illicit discharges to the MS4 within the county’s jurisdiction	Illicit discharges

Table 6: Illicit Discharge Detection and Elimination BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
C1	Update training material if needed		S			
	Train appropriate public works employees		P	P		
	Develop or acquire material for refresher course, if needed due to changes/staffing				W	
	Conduct refresher course if needed	C				W
C2	Publish stormwater program contact information in drinking water report & on website	C	S	S	S	S
	Respond to any public requests/concerns	W	W	W	W	W
C3	Re-evaluate outfall development	S				
	Update/label discharge points on map accordingly	P	P	P		
	Add any new structural BMPs/outfalls to map	C	W	W	W	W
	Review the storm sewer map and update when necessary		S	S	S	S
C4	Update IDDE plan to reflect new permit and audit requirements	C				
	Re-assess priority outfalls list as outlined in IDDE Plan and update on map & in plan	P	P			
	Inspect outfalls as outlined in the IDDE Plan	C	P	P	S	S
	Respond to any reported discharges/connections/concerns	W	W	W	W	W
	Review plan and update when necessary		S	S	S	S

C – Complete P – Phased Implementation S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

3.4 Construction Site Stormwater Runoff Control

Madison County must develop, implement, and enforce a program to reduce, to the maximum extent practicable, pollutants in any stormwater runoff to the MS4 from construction activities that result in a total land disturbance of one or more acres and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one or more acres.

The SWMP must include the following components:

- (i) Specific procedures for construction site plan review, approval, and re-approval;
- (ii) To the extent allowable under State law, an ordinance or other regulatory mechanism (a) to require erosion and sediment controls, (b) to require sanctions to ensure compliance, and (c) to provide all other authorities needed to implement the requirements of Section 3.4;
- (iii) A training program for MS4 site inspection staff in the identification of appropriate construction best management practices;
- (iv) Procedures for the periodic inspection of qualifying construction sites to verify the use of appropriate erosion and sediment control practices that are consistent with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas* published by the Alabama Soil and Water Conservation Committee;
- (v) Procedures to notify ADEM of construction sites that do not have a NPDES permit or have ineffective BMPs that are discovered during periodic inspections; and
- (vi) A mechanism for the public to report complaints regarding discharges from qualifying construction sites.

Permit Fulfillment:

Subdivision/commercial developments in Madison County’s jurisdiction must follow the Madison County Subdivision Regulations/Commercial Site Plan Application Procedures and must submit site plans for approval. Therefore, for qualifying subdivision/commercial developments, the SWMP will satisfy permit requirements (i), (ii)(a) and (iii) – (vi) above; **however, State and local laws prohibit Madison County from fulfilling permit requirement (ii)(b) and (ii)(c) above.**

For residential construction sites, Madison County’s Building Inspection Code does not require site plans but does require the sites to apply for building permits. Therefore, for qualifying residential construction sites, the SWMP will satisfy permit requirements (iii) - (vi) above; **however, State and local laws prohibit Madison County from fulfilling permit requirement (i) and (ii) above.**

Madison County's Subdivision Regulations and Building Inspection Code do not govern non-residential and non-commercial sites in rural Madison County. These qualifying construction sites are not required to apply for building permits or submit site plans for approval. Consequently, there is no tracking mechanism for these sites, and Madison County would be aware of these sites only if they were reported by County employees or the public. Therefore, for these "other" qualifying construction sites, the SWMP can only satisfy permit requirements (v) and (vi) above. This does not include the non-residential/non-commercial qualifying construction sites operated by Madison County. For these County sites, the requirements of the construction general permit will be followed.

Madison County has very limited regulatory, monitoring and enforcement authority (see Appendix B). Consequently, the County will be relying on ADEM to establish minimum standards for construction site erosion and sediment control practices through ADEM's State-wide NPDES construction stormwater regulatory program with construction sites being subject to ADEM's permits and regulations. The County will use its limited capability for enforcement of such standards and, when necessary, will exhaust its available enforcement authority to address non-compliant construction sites. However, the County will refer to ADEM (through the eComplaint System) those non-compliant sites that do not adhere to the enforcement actions set forth by the County; thus necessitating further support/assistance from ADEM. When sites within the MS4 are discovered to not have a NPDES permit, approvals to proceed/building permits will not be issued until corrected. If a site proceeds regardless of the County's efforts to halt construction, the County will report the site to ADEM through the eComplaint System.

Also, due to Madison County's limited authority, educational tools will be utilized to supplement the construction site stormwater program.

Therefore, the following BMPs were chosen:

3.4.1 Stormwater Education and Regulation Training for Construction Community (BMP - D1)

When opportunities arise, Madison County will help sponsor, or assist other partners to conduct, training seminars for local home builders, contractors and developers. The focus of this stormwater education and regulations training will be to educate local entities about their responsibilities for obtaining, and complying with, construction stormwater permits from ADEM. Since Madison County cannot implement ordinances and, therefore, has very limited authority to enforce regulations, stormwater education is a worthwhile outreach tool. (This BMP also complies with the Public Education and Outreach component.)

3.4.2 Stormwater Program Fact Sheets for Construction Sites (BMP - D2)

Fact sheets, specific to construction sites in Madison County, will be developed or acquired. Topics likely to be covered include requirements for erosion control, sediment control, waste control and monitoring, as well as notifications of inspections. Madison County will supply the materials to owners/developers of construction sites upon request, display the materials at appropriate County offices, and post on the County website when feasible. Reminding entities about their stormwater responsibilities and providing information about appropriate Best Management Practices should help reduce the discharge of pollutants.

3.4.3 Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns (BMP - D3)

State and Madison County Stormwater Program contacts will be included in the Madison County Annual Drinking Water Report, and on the County website, to provide a mechanism for the public: (1) to request a viewing of the SWMP Plan and annual report or to view the plan/report on the website, and (2) to report any stormwater/discharge concerns. Since ADEM already requires the Madison County Water Department to send an annual consumer confidence report to all its customers (approximately 89,000 residents as of November

2016), this outreach tool will reach most of rural Madison County in a cost efficient manner. In addition, posting the information on the County website will provide another means to reach the public. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns a non-compliant construction site within the MS4, the County will use its available enforcement authority to address the problem until it becomes apparent the site will not adhere to these actions, therefore necessitating a request for ADEM's assistance through the eComplaint System. If the complaint is viable and it concerns an illicit discharge (within the MS4 or entering from an adjacent MS4), Madison County will notify the appropriate agency for assistance – ADEM through the eComplaint System or the Madison County Public Health Department by email/phone. (This BMP also complies with the Public Involvement/Participation and Illicit Discharge Detection and Elimination components.)

3.4.4 Inspection of Qualifying Construction Sites (BMP – D4)

Madison County will follow the Standard Operating Procedure (see Appendix J) developed for inspecting non-county, priority construction sites – those qualifying constructions sites which discharge stormwater runoff in to impaired waterbodies of the MS4. When there are construction sites requiring a NPDES stormwater permit through ADEM, a determination will be made as to whether or not the site is classified as “priority”. **For these priority sites, monthly inspections will be conducted to verify the use of controls consistent with ADEM standards. When necessary, the County will use its available enforcement authority to address any non-compliant construction sites discovered during the inspections. Sites that do not respond to the County's enforcement actions will be referred to ADEM for assistance through the eComplaint System.** For qualifying construction sites operated by the County, inspections will follow the construction general permit requirements. Coordination between engineering, subdivision and inspection departments will be necessary to implement the procedures. **All inspectors will be trained in the identification of appropriate BMPs.**

3.4.5 Commercial/Subdivision Construction Site Plan Review and Approval (BMP – D5)

Madison County's subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion. Procedures, such as requiring qualifying construction sites to show proof of stormwater permit application before issuing permit to develop and confirming control practices are present on plans and consistent with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*, will be utilized to minimize construction sites' adverse impacts on water quality. Coordination between engineering and subdivision departments is necessary to implement the procedures. Madison County will continue the current process for approving construction site plans as stated in the Commercial Site Plan Application Procedures and the *Madison County Subdivision Regulations* and will, when needed, update the specifications and procedures, to the extent allowable under State law. See the latest revision of the *Madison County Subdivision Regulations* for details in Appendix D. The entire Subdivision Regulations and Commercial Site Plan Application Procedures can be viewed at the Public Works Department upon request in writing and on the Madison County website.

3.4.6 Stormwater Permit Requirement Notification for Qualifying Residential Construction Sites (BMP – D6)

Residential construction sites are not required to provide a site plan, and the only avenue for stormwater permit requirement notification is through the Building Inspection Department's process for issuing permits to build. Therefore, Madison County will implement procedures to notify owners/developers when a stormwater permit is required for qualifying residential construction sites, prior to issuing building permits.

Table 7: Construction Site Stormwater Runoff Control – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
D1	Training for Construction Community	Construction Community	Train local home builders, contractors and developers about their permit responsibilities	Making effort to train construction community since county has very limited authority to monitor and enforce activities	Awareness of regulations; erosion/sediment
D2	Fact Sheets for Construction Sites	Construction Community	Supply owners/developers material about BMPs, monitoring and inspecting; post material on county website	Reminding entities about responsibilities and providing info about BMPs should help reduce pollutants	BMP misuse; erosion/sediment
D3	Publish Stormwater Contact Info and Respond to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers in annual report and on website; investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM; report and website are cost efficient ways to reach rural residents; provide avenue for public involvement –request info/report concerns	General/overall awareness; public participation
D4	Inspection of Qualifying Construction Sites	Construction Community	Continue following the standard operating procedure for inspecting non-county, priority construction sites within the MS4	Help keep construction community accountable for erosion/sediment control measures; installs BMPs	Non-compliant priority construction sites
D5	Commercial/Subdivision Construction Site Plan Review and Approval	Construction Community	Continue current process for approving construction site plans; require qualifying construction sites to show proof of stormwater permit application	Ensure construction community plans for appropriate control measures and is aware of regulations	Awareness of regulations; erosion/sediment
D6	Permit Requirement Notification for Qualifying Residential Construction Sites	Construction Community	Provide checkbox on building permit application form to notify owner/developer when a stormwater permit is necessary	Due to limited authority, only avenue to notify entity of stormwater permit requirements	Non-compliant priority construction sites

Table 8: Construction Site Stormwater Runoff Control BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
D1	Assist other partners with training seminars for local builders, contractors and developers	C	W	W	W	W
D2	Supply fact sheets, relevant to construction sites, to developers/owners Display fact sheets at relevant county offices and on website Update material if needed	C C	W S	W S S	W S S	W S S
D3	Publish stormwater program contact information in drinking water report & on website Respond to any public requests/concerns	C W	S W	S W	S W	S W
D4	Make sure all construction site inspectors have QCI certifications Continue priority construction site inspections according to SOP Notify ADEM of any non-compliant sites Update SOP when necessary	C S W W	S S W W	S S W W	S S W W	S S W W
D5	Continue current process for approving construction site plans Require qualifying construction sites to show proof of stormwater permit application	S S	S S	S S	S S	S S
D6	Provide checkbox on building permit form to notify when a stormwater permit is needed	C	S	S	S	S

C – Complete S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

3.5 Post-Construction Stormwater Management in New Development and Redevelopment

Madison County must develop and implement a post-construction stormwater management plan to address stormwater runoff, to the maximum extent practicable, from new development and redevelopment projects that disturb greater than one acre and projects less than one acre that are a part of a larger common plan of development or sale. Post-construction management refers to activities that take place after construction occurs and includes structural and non-structural controls to obtain permanent stormwater management over the life of the property’s use.

The post-construction plan components shall include:

- (i) Procedures for site plan review and approval to ensure post-construction BMPs are addressed and a re-approval process when changes to post-construction controls are required;
- (ii) Procedures for a post-construction process to demonstrate and document that post-construction stormwater measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance;
- (iii) Strategies which include a combination of structural and/or nonstructural BMPs designed to ensure, to the maximum extent practicable, that the volume and velocity of pre-construction stormwater runoff is not significantly exceeded;
- (iv) An ordinance or other regulatory mechanism, to the extent allowable under State law, to address post-construction runoff from new development and redevelopment projects;
- (v) Provisions for adequate long-term operation and maintenance of post-construction BMPs by implementing conditions, agreements and/or statements outlining maintenance obligations and responsibilities;
- (vi) Plans to perform or require the performance of post-construction inspections, at a minimum of once per year, to confirm the BMPs are functioning as designed; keep records of inspections/maintenance activities; require corrective actions to poorly functioning or inadequately maintained BMPs; and
- (vii) Plans to review and evaluate policies and ordinances related to building codes, or other local regulations, with a goal of identifying regulatory and policy impediments to the installation of green infrastructure and low-impact development techniques.

Permit Fulfillment:

With the application of Madison County's Subdivision Regulations, Madison County can satisfy the above permit requirements for subdivision developments and redevelopments only. The following BMPs were chosen:

3.5.1 Subdivision Development Site Plan Review and Approval (BMP – E1)

Madison County's subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion: before approval of a Proposed Plat, applicants must submit Construction Plans that include a Storm Drainage Plan; detention and/or retention structures must be designed to accommodate a 10 year-24 hour storm event with post development flows not significantly exceeding predevelopment flows; any Final Plat submitted one year following Proposed Plat approval will not be considered until another Proposed Plat is submitted for re-approval; plus many more requirements. For details, see the latest revision of the *Madison County Subdivision Regulations, Article IV – Approval of Subdivision Plats* in Appendix D. The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on the Madison County website.

3.5.2 Inspection and Completion of Post-Construction Control Measure Installation (BMP – E2)

Madison County's subdivision regulations have sufficient procedures for inspecting subdivision development/redevelopment sites and enforceable procedures to either adequately bring any noncompliant projects into compliance or compensate the County for the noncompliance: prior to the final acceptance of the development, the County Engineer or his designee shall conduct a final inspection to verify post-construction BMPs have been installed per design specifications; if any of the required improvements have not been

constructed in accordance with the County's specifications, the applicant is responsible for completing the improvements; wherever the cost of the improvements is covered by a surety, the applicant and the surety may be severally or jointly liable for completing the improvements; the remaining portion of the improvement guarantee will not be released until the satisfactory completion of all required improvements; plus more requirements. For details, see the latest revision of the *Madison County Subdivision Regulations, Article VIII – Required Improvements* and *Article IX – Guarantee of Completion of Improvements* in Appendix D. The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on the Madison County website.

3.5.3 Long-Term Operation and Maintenance of Post-Construction Control Measures (BMP – E3)

According to Madison County's subdivision regulations, subdivision development/redevelopment operators must enter in to a two-year maintenance period after the improvements are accepted by the Madison County Commission. During the maintenance period, the developer/owner must maintain all public improvements (including any stormwater structures) and provide a maintenance surety as a guarantee. After the maintenance period and/or subsequent release of the surety, Madison County assumes responsibility for the operation and maintenance of the improvements (including only the stormwater structures within County easements). For details, see the latest revision of the *Madison County Subdivision Regulations, Article IX – Guarantee of Completion of Improvements* in Appendix D. The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on the Madison County website.

3.5.4 Inspection and Maintenance of Post-Construction Control Measures (BMP – E4)

Madison County will develop and implement a Standard Operating Procedure and schedule for inspecting structural, post-construction BMPs maintained by the County and installed, within the MS4 boundary, since Feb 2013. An inventory of structural controls, records of inspections, maintenance activities, and corrective actions taken will be maintained. Coordination between various County departments will be necessary to implement the procedures. When developed, the SOP and inspection forms will be located in Appendix J. The locations of the structural controls will be maintained on the storm sewer map.

3.5.5 Ensure Policies and Specifications Support Green Infrastructure and Low-Impact Development (BMP – E5)

Madison County will review and evaluate current building codes and subdivision regulations to determine if there are any impediments to the installation of green infrastructure and low-impact development techniques. The engineering, subdivision and inspection departments will be consulted during the review process. If any deterrents exist, Madison County will decide whether or not to remove the impediments. If the decision to remove is made, Madison County will update the policies/specifications, to the extent allowable under State law. Likewise, Madison County will make efforts in future regulations and policies to ensure green infrastructure/low-impact development techniques are encouraged, not limited.

Table 9: Post-Construction Stormwater Management in New Development and Redevelopment – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
E1	Subdivision Development Site Plan Review and Approval	Construction Community	Continue current process of reviewing and approving development/redevelopment site plans	Ensure construction community includes and appropriately designs control measures	Post-construction runoff volume and velocity
E2	Inspection and Completion of Control Measure Installation	Construction Community	Continue current procedures for inspecting post-construction BMP installation and enforcement	Help keep construction community accountable for proper installation/completion of control measures	Non-compliant BMP installation
E3	Long-Term Operation and Maintenance of Control Measures	MS4 Operation	After initial two-year maintenance period, assume responsibility for operation and maintenance	Ensure responsibility for control measure operation and maintenance	Long-term maintenance of control measures
E4	Inspection and Maintenance of Control Measures	MS4 Operation	Inspect structural BMPs owned, operated or maintained by the county (within MS4)	As required by the new general permit; ensure proper operation of control measures	Effectiveness of control measures
E5	Ensure County Policies/Specs Support Green Infrastructure & LID Techniques	MS4 Operation	Review and update, if necessary, current codes and regulations; make efforts not to limit techniques in future policy revisions	Ensure county has no regulatory and/or policy impediments to green & LID installations/techniques	Impediments to green infrastructure & LID techniques

Table 10: Post-Construction Stormwater Management in New Development and Redevelopment BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
E1	Continue current process of reviewing and approving development site plans	S	S	S	S	S
E2	Continue current procedures for inspecting and enforcing BMP installations	S	S	S	S	S
E3	Ensure developers/owners under 2-yr maintenance period take care of improvements	W	W	W	W	W
	Assume responsibility of improvements after 2-yr maintenance period ends	W	W	W	W	W
	Correct any operational problems when needed	W	W	W	W	W
E4	Develop standard operating procedure for inspecting structural, post-construction BMPs	S				
	Develop inventory list of known structural BMPs within MS4 area, installed since Feb 2013	P	P			
	Inspect structural BMPs	P	P	S	S	S
	Correct any deficiencies noted during inspections	W	W	W	W	W
	Add new structural BMPs to inventory as the county assumes responsibility	W	W	W	W	W
E5	Make efforts to ensure regulations/codes do not limit green infrastructure/LID techniques	W	W	W	W	W
	Update policies/specifications if needed	W	W	W	W	W

P – Phased Implementation S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

3.6 Pollution Prevention/Good Housekeeping for Municipal Operations

Madison County must develop and implement a pollution prevention/good housekeeping program to prevent or reduce the discharge of pollutants in stormwater runoff from municipal operations to the maximum extent practicable.

The program elements shall include the following:

- (i) An inventory of all municipal facilities, including municipal facilities that have the potential to discharge pollutants via stormwater runoff;
- (ii) Strategies for the implementation of BMPs to reduce litter, floatables and debris from entering the MS4;
- (iii) Standard Operating Procedures (SOPs) detailing good housekeeping practices to be employed at appropriate municipal facilities and during municipal operations;
- (iv) A program for inspecting municipal facilities for good housekeeping practices and BMPs; and
- (v) A training program for municipal facility staff in good housekeeping practices outlined in the SOPs.

Permit Fulfillment:

The following BMPs were chosen for the program:

3.6.1 Inventory of County Facilities (BMP – F1)

Madison County will develop and maintain an inventory list of County operation facilities, within the MS4 boundary, that have the potential to discharge pollutants via stormwater runoff. To determine which facilities have operations with the potential to contribute pollutants to stormwater runoff, the following will be evaluated: types of chemicals stored, storage capacities of containers/tanks, outfall locations and types, and overall operations practiced at the facility. The inventory will be updated when necessary. The list will be placed in Appendix K.

3.6.2 Standard Operating Procedures for Good Housekeeping Practices (BMP – F2)

Madison County will develop Standard Operating Procedures (SOPs) detailing good housekeeping practices to be employed at appropriate County facilities and during applicable County operations. The SOPs will be organized in a guidebook, or similar manual, and provided to relevant facilities/employees. Once implemented, the SOPs will be updated when necessary. When complete, copies of the SOPs will be located in Appendix J.

3.6.3 Stormwater Training for Madison County Public Works Employees (BMP – F3)

Madison County will deliver stormwater training to appropriate public works employees. Refresher courses will be provided as needed to address changes in procedures, techniques or staffing. The training material will focus on preventing/reducing stormwater pollution at County facilities and during County operations (as outlined in the SOPs), detecting illicit discharges, and requirements for obtaining permits for qualifying construction projects. Relevant employees will be trained on how to conduct inspections of their facilities and operations; be provided guidance on choosing and maintaining appropriate BMPs to rectify problem areas; and instructed to contact a Stormwater Management Program representative for any additional direction. A BMP handbook, *STORMWATER MANAGEMENT FOR COUNTY OPERATIONS AND PROJECTS: A Guidance Document of Pollution Prevention/Good Housekeeping Best Management Practices*, was developed for this training. The guidebook will be updated to include relevant SOPs and supplied to applicable departments. The guidance document can be viewed at the Public Works Department upon request.

3.6.4 Litter Pollution Reduction from County Roadsides (BMP – F4)

Rural county roads are vulnerable to litter pollution. Madison County will use County forces and inmates, when available, to clean up litter and illegal dump sites along County roadsides. These efforts will help decrease County litter pollution.

3.6.5 Herbicide Reduction for County Roadside Maintenance (BMP – F5)

The roadsides in the MS4 area, located in rural Madison County, must be maintained for public safety. However, reducing herbicide applications can help decrease the possibility of herbicide pollution. Madison County will continue low herbicide use in Districts 1, 3 and 4.

3.6.6 Curbside Recycling for Residents of Rural Madison County (BMP – F6)

Madison County will use a curbside recycling program to supply recycle bins and pick-up service for 36,000 plus homes in rural Madison County. Curbside recycling provides a means for rural Madison County residents to recycle. Otherwise, recycling would most likely not take place, due to location and inconvenience, if such a program did not exist.

3.6.7 Drop-Site Recycling for Residents of Rural Madison County (BMP – F7)

Madison County will supply recycling drop-sites at centralized locations in rural Madison County. Pick-up services, for the recycle items, will also be provided by Madison County employees. Recycling drop-sites provide a means for rural residents, who are not in the curbside recycling service areas, to recycle. Otherwise, recycling would most likely not take place, due to location and inconvenience, if such programs did not exist.

3.6.8 Recycling Programs and Large Debris Collection Services for Residents of Rural Madison County (BMP – F8)

Rural county roads are vulnerable to dumping. Madison County will provide a means for residents to dispose/recycle items such as used tires, electronics and appliances and provide large debris pick-up services for residents in the rural district areas. Hopefully, the programs will help decrease the occurrences of illegal dumping and burning in the County. Madison County will apply for recycling grants through multiple outside sources, and when approved, residents of Madison County will be allowed to dispose of these items at the rural Madison County district offices and/or district landfills. Large debris collection procedures/dates will be posted on the County website.

3.6.9 Employee Attendance at Stormwater/Pollution Prevention Workshops and Seminars (BMP – F9)

When opportunities arise, appropriate Madison County management and staff will attend workshops and seminars about stormwater and pollution prevention topics. By attending these relevant workshops and seminars, employees will be increasing their knowledge of current and effective methods used to address stormwater/pollution issues. Therefore, the management and staff will be better prepared to facilitate BMPs and the overall Stormwater Management Plan.

3.6.10 Inspections of County Facilities and Pollution Prevention BMP Implementation (BMP – F10)

Trained public works employees will be instructed to follow developed SOPs and guidelines of the BMP handbook, *STORMWATER MANAGEMENT FOR COUNTY OPERATIONS AND PROJECTS: A Guidance Document of Pollution Prevention/Good Housekeeping Best Management Practices*, to conduct inspections of County operation facilities that have the potential to discharge pollutants via stormwater runoff in to the County MS4 system (see Appendix K for the list of facilities/locations). Inspections will be conducted biennially to determine if any BMPs should be implemented to correct and/or minimize stormwater pollution or runoff problems. If needed, a stormwater management program representative will provide guidance with the inspections and with choosing/maintaining appropriate BMPs to rectify any problem areas. Identifying and resolving unsatisfactory practices should help prevent and reduce stormwater pollution from County operations. For more details, the guidance document can be viewed at the Public Works Department upon request. When complete, the Standard Operating Procedures and the Facility BMP Inspection Checklist will be included in Appendix J.

Table 11: Pollution Prevention/Good Housekeeping for Municipal Operations – Summary of BMPs

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
F1	County Facilities Inventory	County Operations Facilities	Develop & maintain an inventory of facilities in MS4 that could potentially discharge pollutants in stormwater runoff	As required by new general permit; to ensure appropriate facilities are monitored	Awareness of potential sources from facilities
F2	SOPs for Good Housekeeping	Public Works Employees & Operations	Develop standard operating procedures to be used at county facilities and during operations	As required by new general permit; equip employees to prevent/reduce pollution	stormwater/runoff problems resulting from operations
F3	Training for County Employees	Public Works Employees & Operations	Train employees on preventing/reducing stormwater pollution, detecting illicit discharges, and obtaining construction permits	Training employees will help prevent/reduce pollutant runoff from county operations and inform them of stormwater regulations	Awareness of stormwater issues and regulations; general/overall
F4	Litter Reduction from Roadsides	County Work Force & Operations	Use county forces and inmates to pick up, and therefore reduce, litter along roadsides	Rural county roads are vulnerable to litter	Litter; dumping
F5	Herbicide Reduction for Roadside Maintenance	Public Works Employees & Operations	Continue low herbicide use in Districts 1, 3 and 4	Reducing herbicide applications can help decrease herbicide pollution	Herbicide
F6	Curbside Recycling for Rural Residents	General Public	Supply recycle bins and pick-up service for 36,000 plus homes	Provide a means for residents to recycle who otherwise wouldn't due to location	Improper disposal of wastes
F7	Drop-Site Recycling for Rural Residents	General Public	Supply recycle drop-sites and pick-up service at centralized locations	Provide a means for residents to recycle who otherwise wouldn't due to location	Improper disposal of wastes
F8	Recycling Programs and Large Debris Collection	General Public	Apply for recycling grants which will allow residents to dispose of used tires, electronics, appliances, etc. at county locations; provide large debris pick-up services	Providing a means for residents to dispose of large/recyclable items will decrease illegal dumping and burning	Litter; dumping
F9	Employee Attendance at Workshops and Seminars	Public Works Employees	Employee attendance at workshops and seminars about stormwater and pollution prevention topics	Increasing employee knowledge will prepare them to better facilitate BMPs and Management Plan	Awareness of current/effective methods used for stormwater
F10	Inspections of Facilities and BMP Implementation	County Employees & Operations	Conduct inspections of facilities and operations (within MS4) to determine if BMPs are needed to address pollution/runoff problems	Identifying and resolving problem areas will help reduce stormwater pollution from county activities	General stormwater/runoff problems resulting from operations

Table 12: Pollution Prevention/Good Housekeeping for Municipal Operations BMPs – Implementation Schedule

BMP #	TASK	2017	2018	2019	2020	2021
F1	Develop inventory of county operation facilities with pollution potential (within MS4) Update list when needed	C	W	W	W	W
F2	Develop good housekeeping SOPs for county facilities and county operations Implement SOPs when complete Update when needed	P P	P W	P W	S W	S W
F3	Update guidance manual/training material to include completed SOPs Train appropriate public works employees on completed SOPs Update training material, if needed, due to changes/staffing Conduct refresher course, if needed	P C	P P	P P	P W	W
F4	Use county forces and inmates to pick up litter/dump sites along county roadsides	W	W	W	W	W
F5	Continue low herbicide use for county roadside maintenance	C	S	S	S	S
F6	Continue curbside recycling program for rural county residents	S	S	S	S	S
F7	Continue drop-site recycling program for rural county residents	S	S	S	S	S
F8	Apply for recycling grants Implement recycling programs when granted Provide large debris collection services to residents in rural districts	C C S	S W S	S W S	S W S	S W S
F9	Employees attend workshops and seminars on stormwater/pollution prevention topics	C	W	W	W	W
F10	Inspect facilities and operations (after SOP development and training) Implement necessary BMPs to address pollution/runoff problems	P W	P W	P W	W	S W

C – Complete P – Phased Implementation S – Scheduled W – When Events Warrant, Opportunities Arise or Forces are Available

4 EVALUATION OF STORMWATER MANAGEMENT PROGRAM

4.1 Annual Review of SWMP

The permit requires Madison County to review the Stormwater Management Program each year. During the annual review, program components, practices, inventories, and implementation schedules will be examined and evaluated:

- Best Management Practices are assessed for appropriateness;
- Measurable goal outcomes help determine BMP effectiveness;
- Maps and lists are reviewed for accuracy; and
- Implementation standings assist in setting program priorities.

If it is determined modifications are needed to ensure compliance with either the current permit or any new stormwater regulations, Madison County will follow the proper procedures to update the SWMP. All program changes will be documented in the annual reports.

4.2 Discharges to Impaired Waters and Monitoring Requirements

If there is an impaired waterbody within the MS4 jurisdiction, the County must implement a monitoring program to address the impairment. If the MS4 discharges to a waterbody included on the latest 303(d) list, the MS4 must demonstrate the discharges, as controlled by the County, do not cause or contribute to the impairment, and any BMPs, utilized to control discharges of pollutants associated with the impairment, must be detailed in the plan. If the MS4 discharges to a waterbody with an EPA approved or established Total Maximum Daily Load (TMDL) and the TMDL includes requirements for control of stormwater discharges from the MS4, BMPs targeted to meet these specific allocations must be included in the plan. A monitoring plan will be used to assess the effectiveness of the BMPs. At any time existing BMPs are not sufficient, the monitoring plan will be revised detailing new or modified BMPs and schedules for installation/implementation.

For this permit cycle, the County's monitoring program will be re-evaluated and revised to reflect new permit requirements and guidance received during the August 2017 audit. The re-assessment will be conducted over the first two years of the permit period with new procedures implemented by the end of 2018.

When complete, the monitoring plan and results can be found in Appendix E. Implementation plans, revisions and/or results will be submitted to ADEM annually. In addition, all monitoring records and reports can be viewed at the Public Works Department upon request in writing.

5 REPORTING AND RECORDKEEPING

5.1 SWMP Annual Report

The permit requires Madison County to submit an annual report to ADEM. Based on the annual review and the program activities for the reporting year, the annual report documents Madison County's current status of compliance with permit conditions and the progress toward program implementation. The report should include:

- a list of contacts and responsible parties;
- overall evaluation of the stormwater management program developments and progress;
- narrative report of activities for all minimum control measures, including those completed and in progress;
- summary table of controls planned/scheduled for the next reporting cycle;
- results of information collected and analyzed, if any, including monitoring results;
- notice of reliance on another entity to satisfy permit obligations; and
- any proposed changes to the SWMP, including BMPs, measurable goals, and schedules.

Annual reports are due to ADEM by May 31st of each year. The report covers the previous April 1 to March 31. Annual reports applicable to this permit cycle can be viewed in Appendix F.

5.2 Record Keeping

Madison County will maintain all records associated with the Stormwater Management Program at the Public Works Department. The records will be available for public review when requested in writing. The compiled records include:

- NPDES General Permit;
- Notice of Intent;
- Stormwater Management Program Plan;
- Storm Sewer Map;
- Annual Reports with supporting documents;
- Standard Operating Procedures;
- Monitoring Plan, records and reports;
- Illicit Discharge Detection and Elimination Plan and reports;
- SWMPP inspection reports and inventory lists;
- Madison County Subdivision Regulations; and
- STORMWATER MANAGEMENT FOR COUNTY OPERATIONS AND PROJECTS: A Guidance Document of Pollution Prevention/Good Housekeeping Best Management Practices.

6 RESOURCES

Madison County SWMP contacts can be found in Appendix A.

Definitions to terms and acronym details can be found in Appendix G.

References used to develop the SWMP Plan can be found in Appendix H.

APPENDIX A

Stormwater Management Program Contacts

STORMWATER MANAGEMENT PROGRAM CONTACTS

Madison County Public Works Department

266-C Shields Road
Huntsville, AL 35811
256-746-2900

<http://www.madisoncountyal.gov/>

Public Works Director – Richard Grace
256-746-2900

Assistant Public Works Director – Houston Matthews
256-746-2900

County Environmental Engineer – LaWanda West
256-746-2888

Alabama Department of Environmental Management

Water Division
Stormwater Management Branch
Post Office Box 301463
Montgomery, AL 36130-1463
334-271-7700

<http://www.adem.state.al.us/programs/water/default.cnt>

U.S. Environmental Protection Agency

<http://cfpub.epa.gov/npdes/stormwater/munic.cfm>

APPENDIX B

County Attorney's Legal Opinion Letter on Stormwater Issues

J. JEFFERY RICH

ATTORNEY AT LAW

(256) 518-3657

jrich@sirote.com



July 28, 2011

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

To Whom It May Concern:

I represent Madison County, Alabama ("Madison County"). I have been requested to provide information describing Madison County's ability to regulate storm water discharge practices in Madison County in regard to current MS4 permit requirements. Generally, Madison County has limited ability to regulate the issues described in the Madison County Storm Water Management Plan.

Madison County is one of several significantly populated counties in Alabama that does not have "home rule." This means that Madison County is limited in its ability to regulate most land use activities within its borders. Madison County does have certain regulatory authority with respect to subdivisions, flood prone areas and certain nuisances.

The authority to regulate subdivisions is granted and limited by Code of Alabama, § 11-24-1, et seq. (1975). Under these provisions, Madison County is authorized to "regulate the minimum size of lots, the planning and construction of all public streets, public roads, and drainage structures and require proper placement of public utilities" in the limited context of the subdivision of lands. Madison County has adopted subdivision regulations pursuant to these provisions. These regulations are limited to development within the unincorporated areas of Madison County in "subdivisions" as defined by § 11-24-1 (4) and provide limited ability to regulate certain storm water practices within these "subdivisions."

Madison County's authority to regulate certain activities within flood prone areas is provided by Code of Alabama, § 11-19-1, et seq. (1975). Madison County has adopted a flood ordinance pursuant to this authority which provides for certain land use control measures within designated "flood prone areas" as defined in § 11-19-1 (3). Madison County's authority to regulate under these provisions is limited to areas that are designated "flood prone areas" and provides very limited ability to regulate storm water management practices.

Madison County also has limited authority to regulate under the Alabama Limited Self Governance Act. This Act was passed by the Alabama Legislature in 2005 and provides limited ability to regulate certain activities constituting a public nuisance. The ability to regulate under

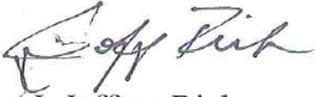
DOCSHSV\203096\1\

LAW OFFICES AND MEDIATION CENTERS
305 CHURCH STREET, SUITE 800 HUNTSVILLE, ALABAMA 35801
POST OFFICE BOX 18248 HUNTSVILLE, ALABAMA 35804-8248
TELEPHONE | 256.536.1711 FAX | 256.518.3681 URL | <http://www.sirote.com>
B i r m i n g h a m | H u n t s v i l l e | M o b i l e

Alabama Department of Environmental Management
July 28, 2011
Page 2

this Act is limited to specific situations which do not have application to storm water discharge management practices.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Jeffery Rich". The signature is written in a cursive style with a large initial "J".

J. Jeffery Rich
FOR THE FIRM

JJR/cbe

APPENDIX C

Storm Sewer Map Development Details,
Urbanized Area Map of Huntsville
and
ALDOT MS4 Areas within Madison County MS4

Storm Sewer Map Development Details

The Stormwater Maps for the urbanized areas located in the unincorporated areas of Madison County were developed using GIS software. The following steps were taken to create the maps:

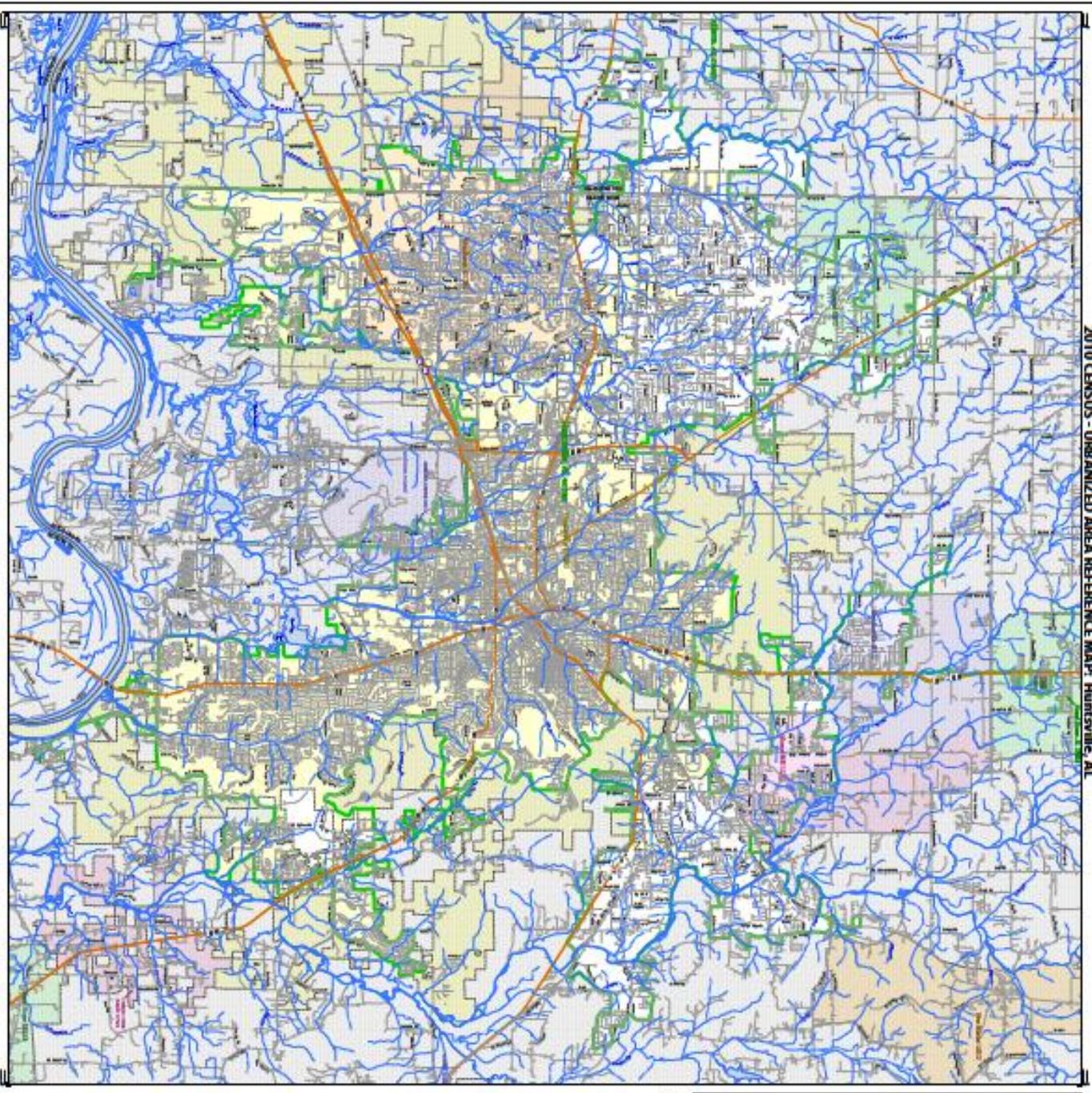
1. Obtain the 2000 Urbanized area shapefile for Madison County, AL from the US Census Bureau website and add to GIS map.
2. Add shapefile showing all incorporated areas of Madison County to GIS map.
3. Overlay county-wide road centerline files on digital USGS 1:24,000 quad sheets and incorporated areas.
4. Identify and isolate urbanized areas that fall outside existing incorporated areas in Madison County.
5. Identify areas where the road centerline intersected USGS blue line streams on the quad sheets.
6. Create a point shapefile at each roadway/blue line stream intersection. These are the stormwater discharge points.
7. After identifying all of the discharge points, the GIS was utilized to determine the Latitude and Longitude of each point.
8. Added labels to each discharge point and created a chart showing the Latitude and Longitude with its corresponding label to the map.

NOTES:

In January 2013, the Storm Sewer Map was updated to reflect new MS4 boundary areas and discharge points. This update was initiated by the newly published Huntsville, AL Urbanized Area Reference Map from the 2010 Census. To complete the update, the 2010 Urbanized Area shapefile was installed in to the GIS software, and new discharge points resulting from the boundary changes were identified/added.

In 2017, outfall definition/discharge point development will be re-evaluated. Coordination with ALDOT will be used in order to correctly identify discharge points in ALDOT's MS4 area, ultimately removing those points from Madison County's responsibility. The Storm Sewer Map will then be updated to reflect any changes. The map update will be phased-in and should be completed by the end of 2019.

2017 update based on Audit (August): ADEM gave pointers on how to re-evaluate outfall points to determine "priority outfalls" based on drainage areas. Madison County will re-evaluate the outfall points based on this advice, and update the Storm Sewer Map accordingly. Consequently, the map update should be completed sooner than the original projection of by the end of 2019.



LEGEND

WATER

- Major Waterway
- Waterway
- Stream
- Channel
- Canal
- Swamp
- Wetland
- Marsh
- Shrubland
- Barren Land
- Water

LAND USE

- Urban
- Suburban
- Rural
- Forest
- Open Space
- Barren Land
- Water

TRANSPORTATION

- Major Road
- Road
- Highway
- Interstate
- State Route
- County Route
- Local Road
- Trail
- Path
- Canal
- Swamp
- Wetland
- Marsh
- Shrubland
- Barren Land
- Water

BOUNDARIES

- City
- County
- State
- Water

OTHER

- Public Building
- Religious Building
- Government Building
- Industrial Building
- Commercial Building
- Residential Building
- Open Space
- Barren Land
- Water

NOTES:

This map is a reference map and does not show the exact boundaries of the urbanized area. The boundaries are based on the 2010 Census data and are subject to change. The map is intended for general information and should not be used for legal purposes.

PRODUCTION INFORMATION:

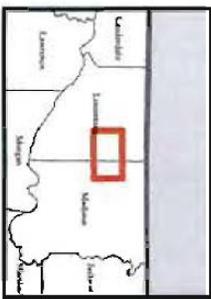
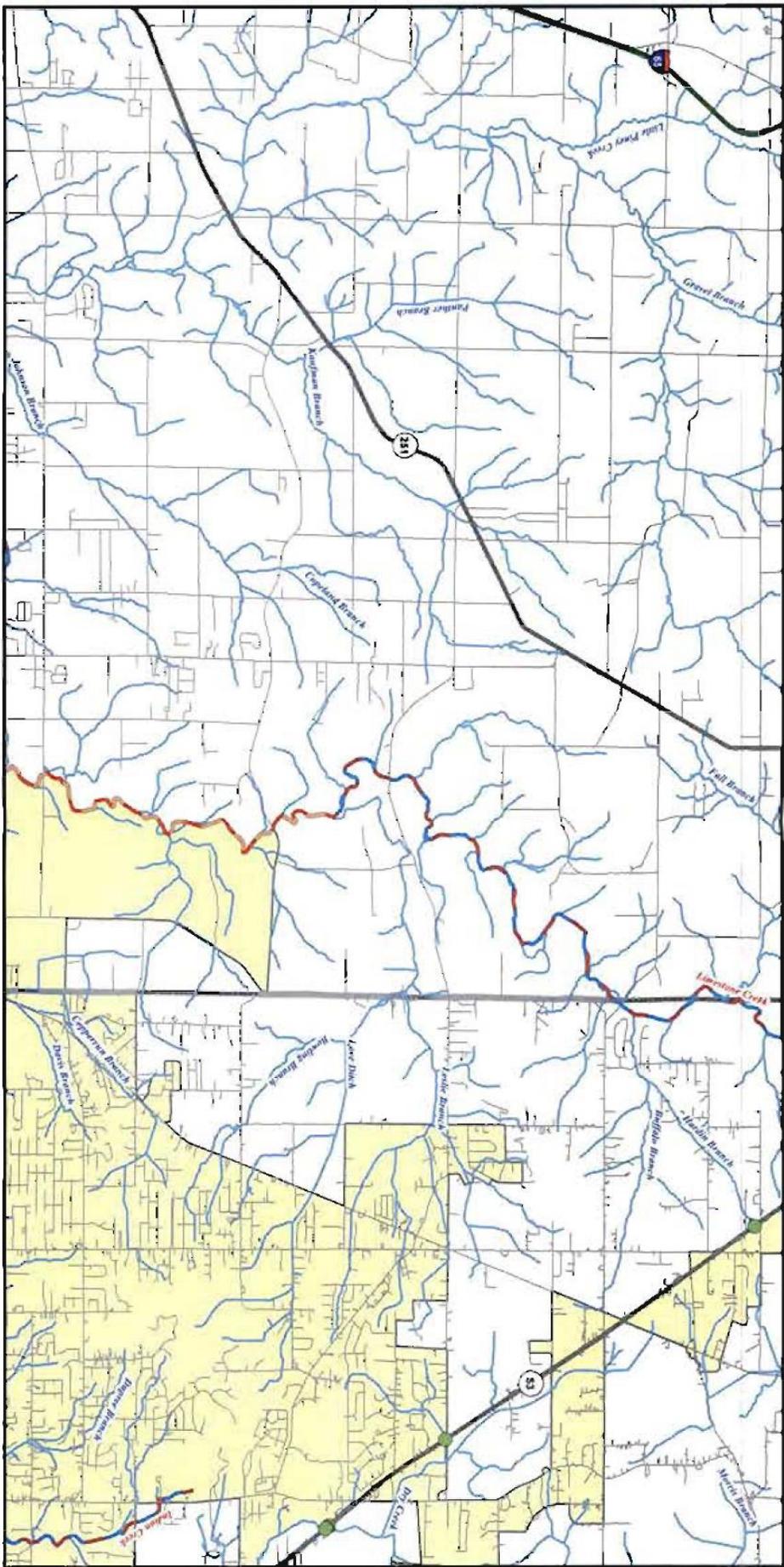
Produced by the U.S. Census Bureau, Washington, DC, 2010.

Map of the United States showing the location of Huntsville, AL.

Scale: 1 inch = 1 mile.

Projection: North Carolina State Plane (NAD83).

Source: U.S. Census Bureau, 2010 Census of Population and Housing, Urbanized Areas.



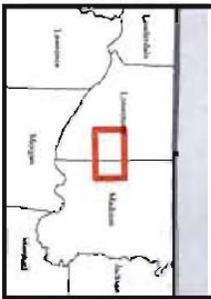
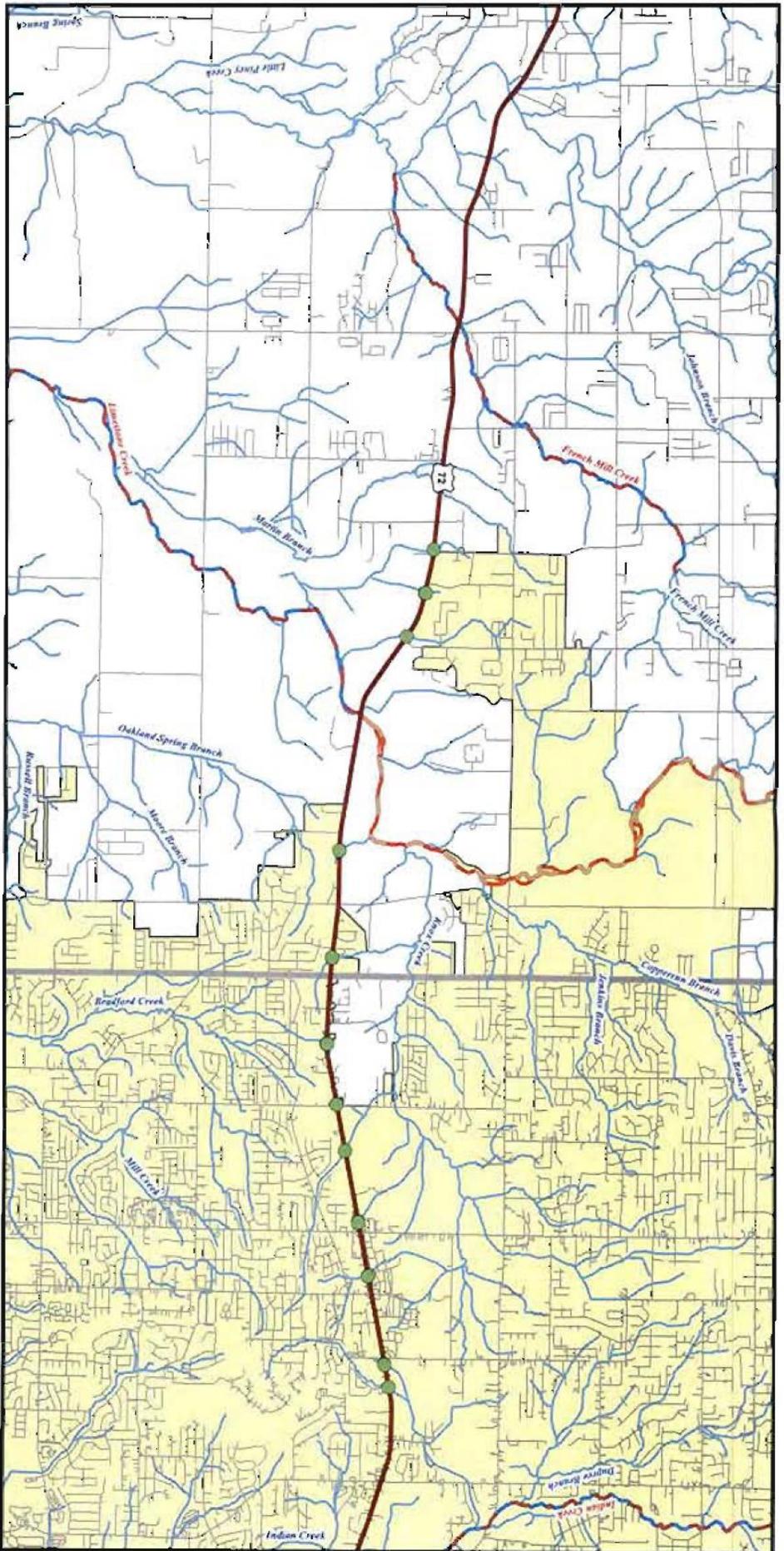
ALDOT MS4 Areas Huntsville Map: 1

MS4 Area
 Outfall Inventory Area
 ALDOT Support Facility
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

0 1,250 2,500 5,000 7,500 10,000
 1 inch = 4,000 feet

Index #: 8



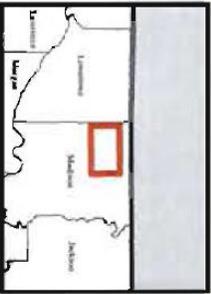
ALDOT MS4 Areas Huntville Map: 2

MS4 Area
 Outfall Inventory Area
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

N
 Scale: 1 inch = 5,000 feet
 0 1,250 2,500 5,000 7,500 10,000 12,500 15,000 feet

Index #: 9



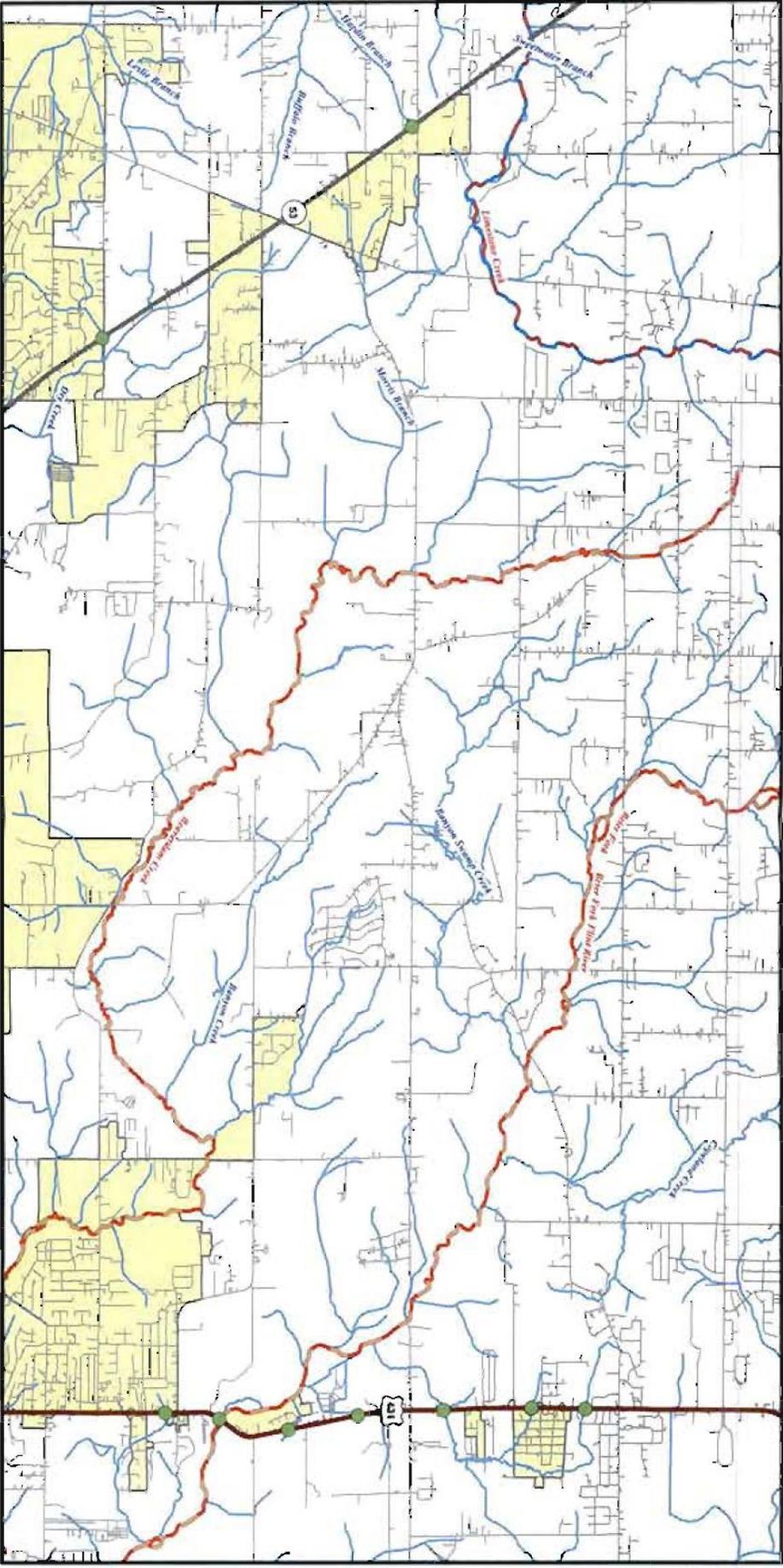
ALDOT MS4 Areas Huntsville Map: 5

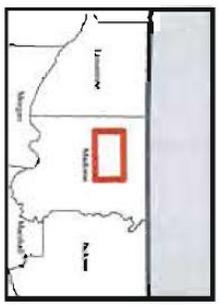
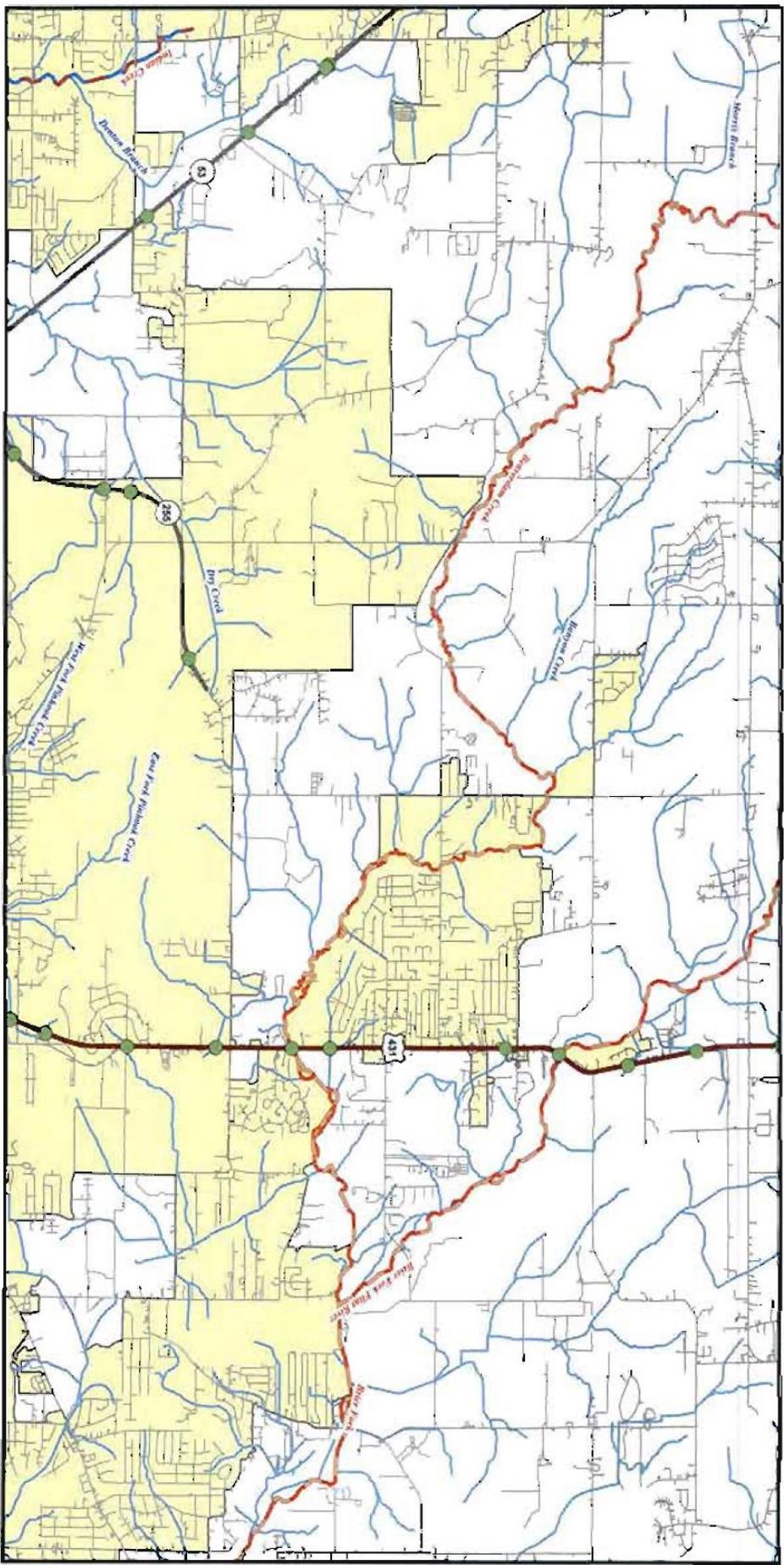
MS4 Area
 ALDOT Support Facility
 Outfall Inventory Area
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

Scale: 1 inch = 5,000 feet
 0 1,250 2,500 5,000 7,500 10,000 12,500 feet

Index #: 12





ALDOT MS4 Areas Huntsville Map: 6

MS4 Area
 Outfall Inventory Area
 ALDOT Support Facility
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

Index #: 13
 0 1,250 2,500 5,000 7,500 10,000 Feet
 1 inch = 5,000 feet

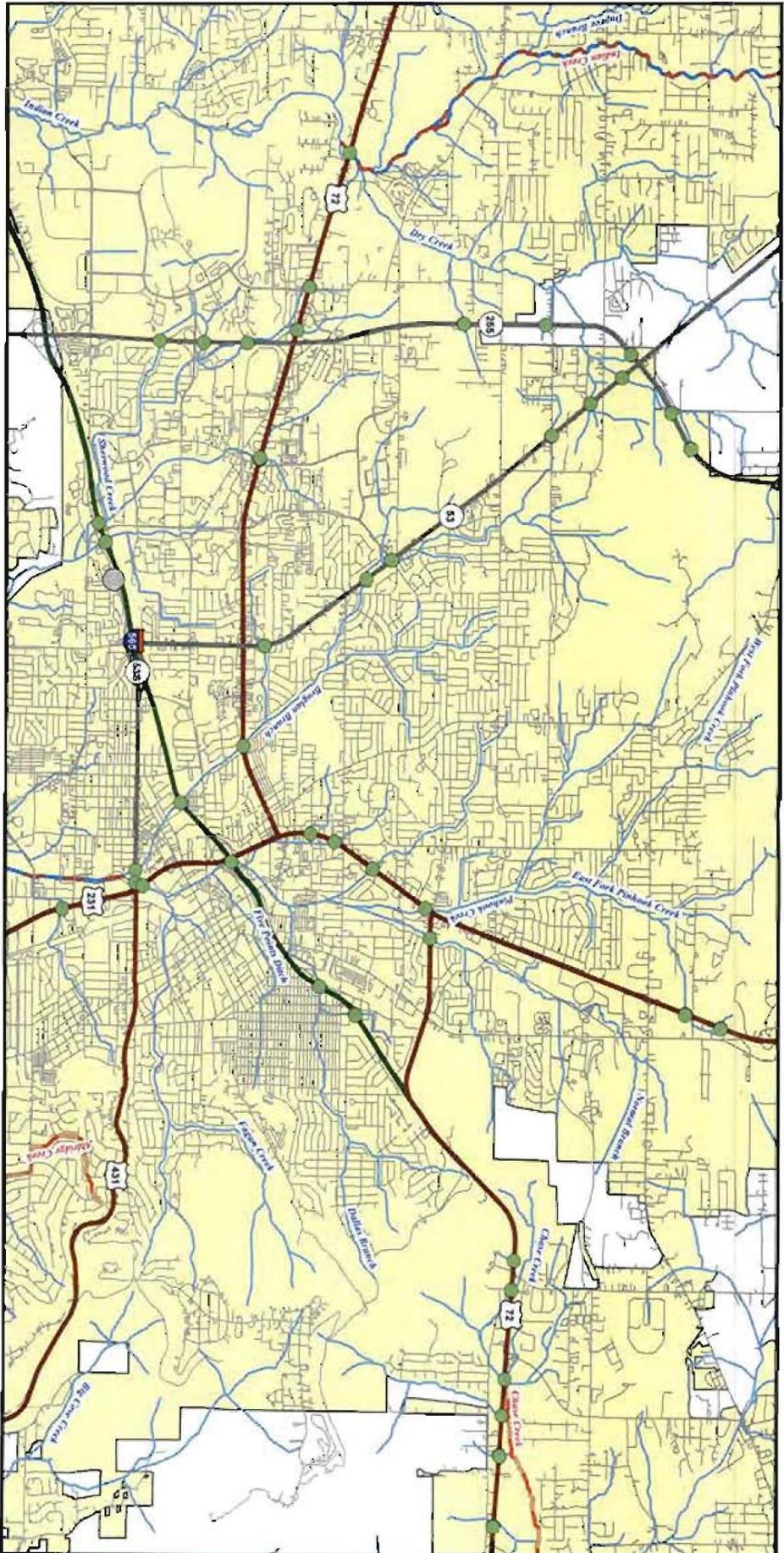


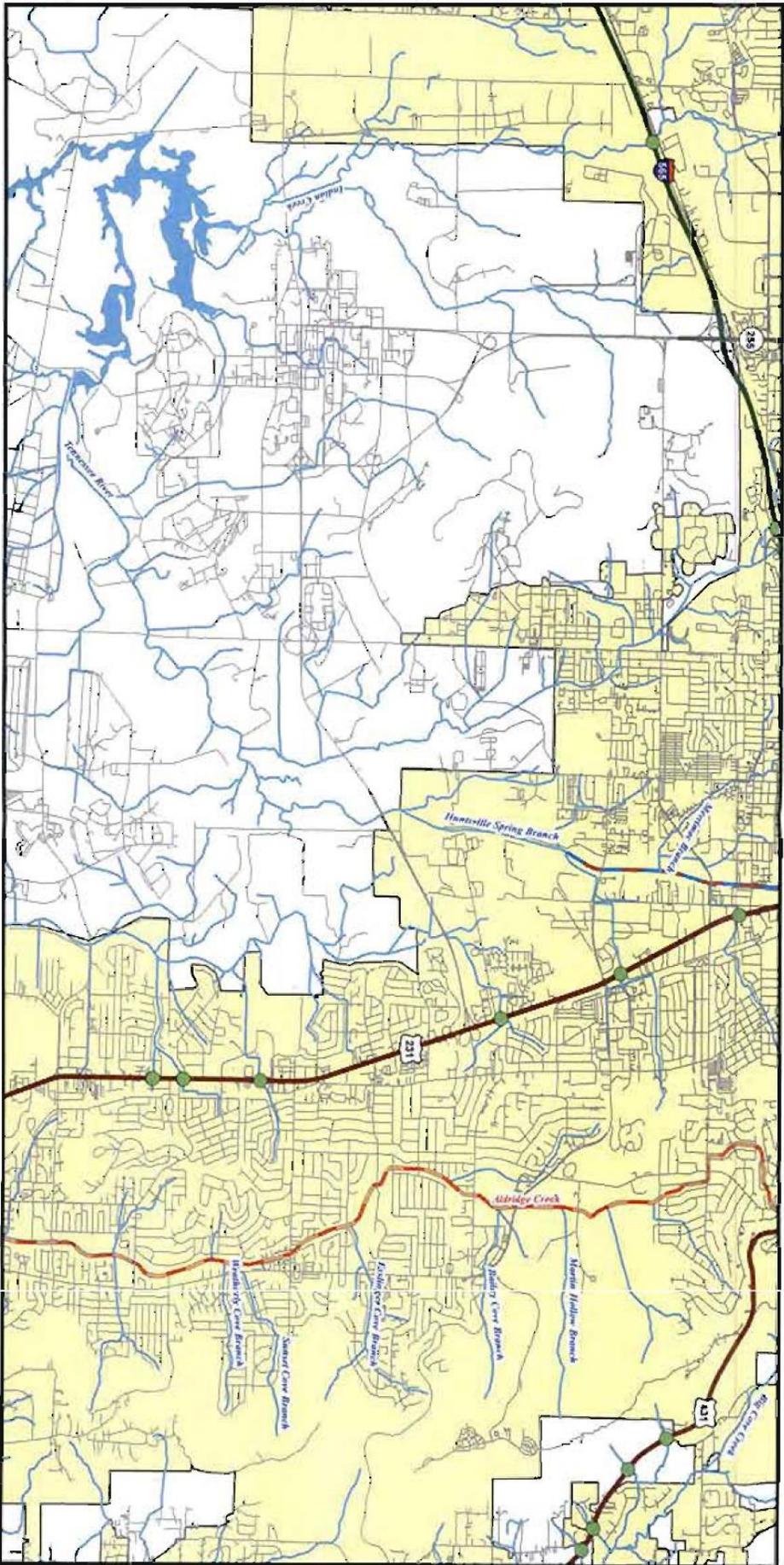
ALDOT MS4 Areas Huntsville Map: 7

- MS4 Area
- Outfall Inventory Area
- Monitoring Locations (TBD)
- 303(d) / TMDL Listed Waters
- Sediment POC
- Other POCs
- ALDOT Support Facility
- Monitoring Locations (TBD)

Scale: 0, 1,000, 2,000, 3,000, 4,000, 5,000 Feet
 Scale: 0, 1,000, 2,000, 3,000, 4,000, 5,000 Meters

Index #: 14

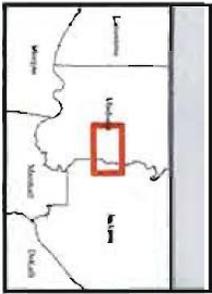




ALDOT MS4 Areas Huntsville Map: 8

- MS4 Area
- ALDOT Support Facility
- Outfall Inventory Area
- Monitoring Locations (TBD)
- 303(d) / TMDL Listed Waters
- Sediment POC
- Other POCs

Index #: 15



ALDOT MS4 Areas **Huntsville** **Map: 12**

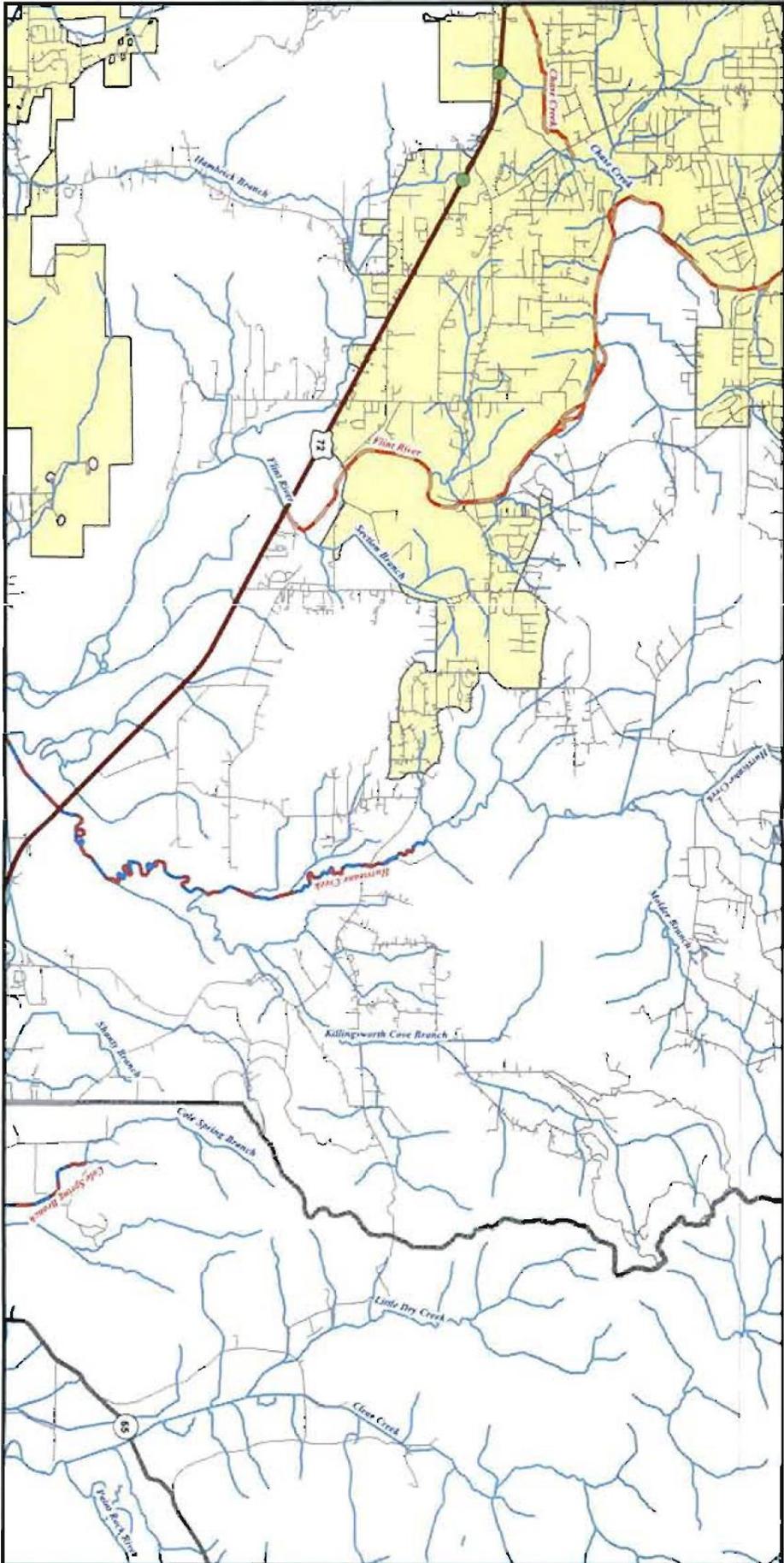
MS4 Area
 ALDOT Support Facility

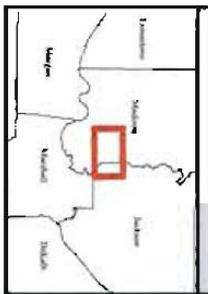
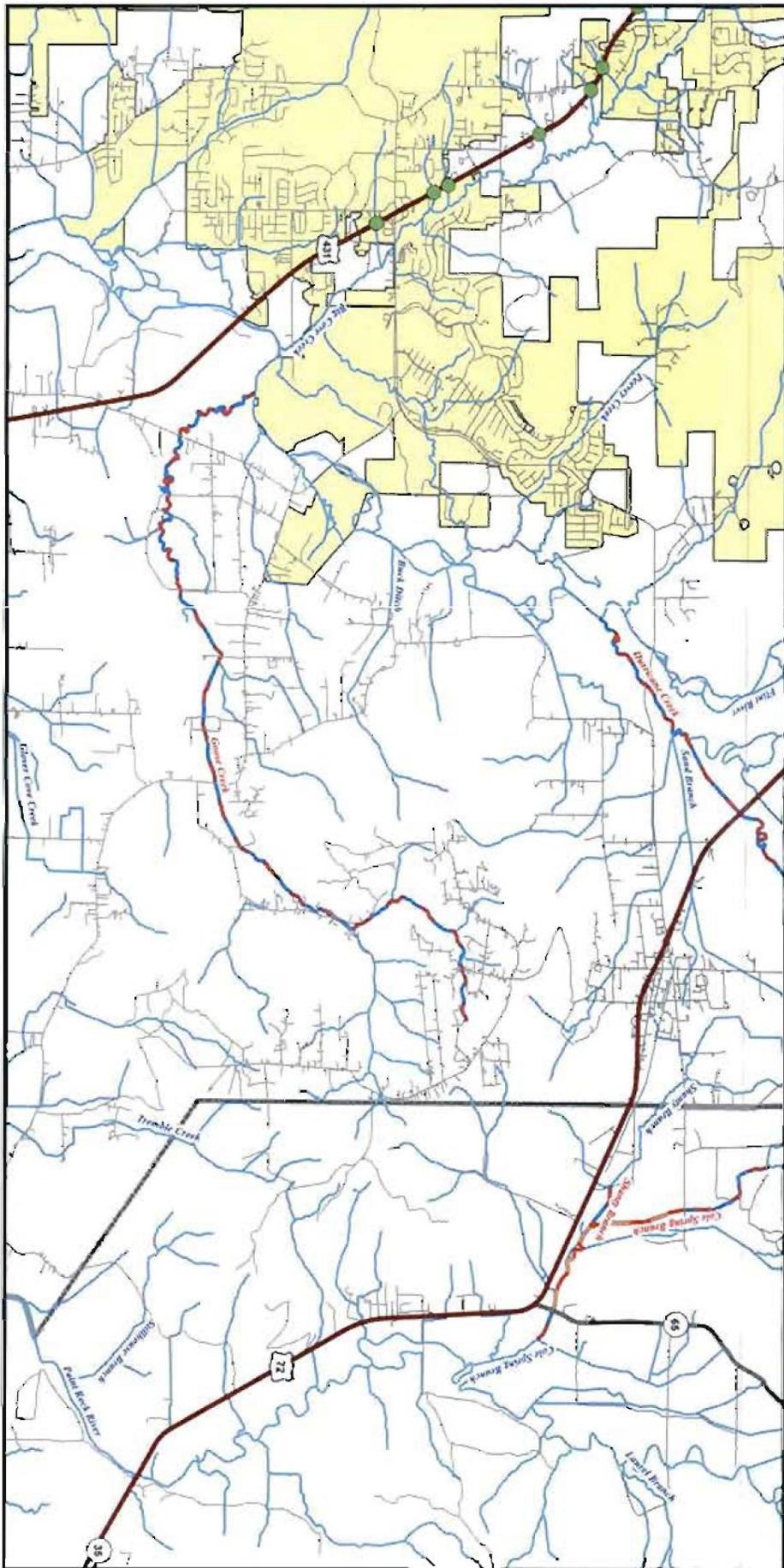
Outfall Inventory Area
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

N
 0 1,250 2,500 5,000 7,500 10,000 Feet

Index #: 18





ALDOT MS4 Areas Huntsville Map: 13

MS4 Area
 ALDOT Support Facility

Outfall Inventory Area
 Monitoring Locations (TBD)

303(d) / TMDL Listed Waters
 Sediment POC
 Other POCs

0 1,500 3,000 4,500 6,000 Feet
 0 1,500 3,000 4,500 Meters
 1 inch = 5,000 feet

Index #: 19

APPENDIX D

Subdivision Regulations

Applicable to SWMP

MADISON COUNTY

SUBDIVISION REGULATIONS

Madison County Department of Public Works
266-C Shields Road
Huntsville, Alabama 35811

Effective Date of Current Revisions: September 1, 2017
Previously Revised: December 17, 2014

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ARTICLE IV APPROVAL OF SUBDIVISION PLATS

Section 4.1. Approval of Subdivision Plats Required. From and after the effective date of these Regulations, no Subdivision plat of land within the Subdivision Jurisdiction, as defined in Article II of these Regulations, shall be filed or recorded until the Final Plat has been submitted to and approved by the Commission and the Final Plat has been recorded in the Office of the Probate Judge. The Probate Judge shall not file or record a Final Plat of a Subdivision of land located within the County's Subdivision Jurisdiction, as defined herein, without the approval of such plat in accordance with these Regulations. No Street, road or other public improvement shall be accepted pursuant to these Regulations by the County unless and until the requirements set forth in these Regulations have been satisfied and the Final Plat has been approved by the Commission and recorded in the Office of the Probate Judge.

Section 4.2. Pre-Application Procedure. Whenever the Subdivision of a tract of land is proposed within the jurisdiction of these Regulations, the Subdivider is urged to consult early and informally with the County Engineer. The Subdivider may submit Sketch Plans and data showing existing conditions within the site and in its vicinity, and the proposed layout and development of the Subdivision. The purpose of this pre-application review is to afford the Subdivider the advice and assistance of the County Engineer in order to facilitate the subsequent preparations and approval of plans.

Section 4.3. Proposed Plat Approval/Permit to Develop. In accordance with the policy of the Commission, no improvements, including utilities, shall be constructed, extended to or connected with any Subdivision of land, as defined herein, until the Proposed Plat has been approved by the Commission or its designee. Such approval shall constitute the Permit to Develop referred to herein. Once the Owner or Developer has obtained the Permit to Develop, he or she may offer lots in the proposed Subdivision for sale, transfer, or lease. However, no sale, transfer, or lease may be completed and no plat, deed, property description, or document of property transfer shall be filed or recorded until after the Final Plat has been recorded in the office of the Probate Judge under the provisions of Code of Alabama 1975, § 11-24-2(c).

4.3.1 Application Procedure. Following the pre-application review, if applicable, of a proposed Subdivision, a Proposed Plat of the Subdivision at a scale no smaller than one (1) inch equals one hundred (100) feet shall be submitted to the County Commissioner(s) for the District(s) in which the proposed Subdivision is located and to the Office of the Madison County Engineer located at 266-C Shields Road; Huntsville, Alabama. The Commissioner(s) for the District(s) in which the Subdivision is to be located shall review the Proposed Plat and acknowledge notice of the proposed Subdivision by signature on the Proposed Plat. This signature does not constitute approval of the Proposed Plat, but solely indicate that the Commissioner have been informed of the proposed Subdivision. The Proposed Plat, construction plans, any required report from or to the Alabama Department of Environmental Management, proof of application for permitting to the Alabama Department of Environmental Management regarding the discharge of stormwater from construction sites (when applicable), a Phase I Report from the Madison County Office of the Alabama Department of Public Health or documentation satisfactory to the County Engineer confirming a Phase I Report is not required, a copy of all drainage calculations (signed and stamped by the Engineer of Record), a fee in accordance with the current fee schedule and any requested variance shall thereafter be submitted to the County Engineer for review, together with the application for proposed plat approval. The Proposed Plat and construction plans shall be reviewed with the Engineer of Record for the Subdivision. Following this review, the County Engineer or his designee shall conduct a site visit with the Engineer of Record for the Subdivision. All proposed roads or Streets in the Subdivision shall be clearly and accurately marked to allow the County Engineer or his designee to assess the location of the proposed roads as such would relate to the surrounding topography and other appropriate consideration. No Proposed Plat shall be approved by the Commission without first being reviewed by the County Engineer. At the time the Proposed Plat is submitted to the Commission for consideration, the County Engineer shall certify to the Commission whether the Proposed Plat meets the requirements of these Regulations. If the Proposed Plat meets the requirements in all manners, the Proposed Plat shall be approved by the Commission, and a Permit to Develop shall be issued by the Commission.

4.3.2 Construction Plans. Construction plans must be submitted at the time of submission of the Proposed Plat. All construction plans shall meet the minimum standards of design and general requirements for the construction of public improvements as set forth in these Regulations. These plans shall be drawn to a horizontal scale not less than one (1) inch equals one hundred (100) feet. Sheet size shall be twenty-four by thirty-six (24 x 36) inches or less. Construction plans shall be prepared by a Licensed Professional Engineer, who shall include both his signature and seal on the plans. Any proposed modification to approved construction plans must be submitted to the Office of the County Engineer on twenty-four by thirty-six (24 x 36) inch sheets and must include the signature and seal of the Owner or Developer's Engineer of Record, date, revision number and a space for the Madison County approving agent to sign and date.

4.3.3 Fees. Application fees, inspection fees, re-inspection fees and all other fees will be charged to the Owner or Developer. These fees must be paid at the time of submission of the Proposed Plat to the County Engineer. A fee schedule may be obtained at the Office of the County Engineer. All fees must be paid prior to any scheduled inspection.

4.3.4 Informational Meeting. An informational meeting must be conducted before the Proposed Plat is submitted to the Commission for approval. The informational meeting will be conducted at 7:30 a.m. Central Standard Time at the Office of the Madison County Engineer on the Wednesday prior to the date that the Commission will consider the Proposed Plat. The informational meeting must be attended by the Engineer of Record for the Subdivision. The Engineer of Record shall have available at the information meeting all plans, permits, calculations and other data needed to answer questions that may arise during the meeting. Failure of the Engineer of Record to attend or be prepared will result in substantial delay in the approval of the proposed plat and issuance of a development permit.

Notice of the informational meeting and the recommendation of the County Engineer shall be sent to the Owner or Developer whose name and address appears on the Proposed Plat by registered or certified mail at least ten (10) days prior to the scheduled informational meeting. A notice in the form provided in Appendix I shall be mailed by the Owner or Developer of the Subdivision to the owner or owners of any land immediately adjoining the proposed subdivision as their names appear on the records of the Office of the Madison County Tax Assessor or other publicly available listings. The Owner or Developer shall provide sufficient proof of delivery of such mailings to the Office of the County Engineer at least twenty-four (24) hours prior to the scheduled informational meeting.

4.3.5 Proposed Plat Approval. The Proposed Plat shall be submitted to the Commission for consideration after the County Engineer or his or her designee has reviewed the Proposed Plat and construction plans, conducted the site visit, met with the engineer for the Subdivision and conducted the informational meeting. Such submittal to the Commission may be conditioned upon the Developer and/or Owner providing adequate proof to the County Engineer of any necessary approval or permit from the Corp of Engineers, the Alabama Department of Environmental Management or any other agency of the United States or the State of Alabama. If Wetlands or any other conditions significantly affecting the Subdivision are present, then the Owner or Developer shall provide a Statement of Jurisdiction and approval from any agency of the United States or the State of Alabama exercising jurisdiction over such condition.

The County Engineer or his or her designee shall certify to the Commission whether the Proposed Plat meets the County's regulations. If the Proposed Plat meets the regulations, it shall be approved by the Commission. If the Proposed Plat shall be determined by the County Engineer to be deficient in any regard at the time it is submitted to the Commission for consideration, the County Engineer shall detail the deficiency to the Commission along with a recommendation that the Proposed Plat be disapproved.

4.3.6 Effective Period of Proposed Plat Approval. The approval of a Proposed Plat shall be effective for a period of one (1) year, at the end of which time final approval of the Subdivision must have been obtained from the Commission. Any plat not receiving final approval within the period of time set forth herein shall be null and

void, and the Applicant shall be required to resubmit a plat for Proposed Plat approval subject to all Subdivision regulations and filing fees applicable at the time of resubmittal.

4.3.7 Proposed Plat Requirements. The Proposed Plat shall be prepared by a Licensed Professional Land Surveyor and shall be clearly and legibly drawn at a convenient scale of not less than one (1) inch equals one hundred (100) feet. Each separate page or sheet shall be numbered in sequence if more than one (1) page or sheet is used. A signature block for the Madison County Engineer shall be provided. The sheet size shall be of such size as is acceptable for filing in the Office of the Probate Judge, but shall not exceed twenty-four by thirty-six (24 x 36) inches. The Proposed Plat shall show the following:

1. Name, phone number(s) and address(es) of Owner(s) of record.
2. Name, phone number(s) and address(es) of Developer(s).
3. Proposed name of Subdivision, date of submission of plat, north indicator and scale.
4. Names and original seal of Licensed Professional Land Surveyor.
5. Vicinity map showing location of the Subdivision.
6. Exact boundaries of the tract of land being subdivided, shown with bearings to the nearest second of an arc and distances to the nearest one hundredth of a foot.
7. Topography at suitable contour intervals to show proposed drainage as approved by the County Engineer. If the topography shown is not the result of field work by the Licensed Professional Land Surveyor of record, the source of the topography shall be noted.
8. Names and addresses of the current owners and reference to the plat book or deed book, and page, evidencing such ownership, of all land immediately adjoining the tract of land being subdivided, including any owners of land separated from the tract of land being subdivided by a Right-of-Way, Easement or other man-made or natural boundary, such as a ditch, stream or river, as the owners' names appear in the records in the Office of the Madison County Tax Assessor (the "Office of the Tax Assessor") or the Office of the Probate Judge.
9. A delineation of Wetlands and any other conditions significantly affecting the site.
10. The location, dimensions and names or other identifying information of existing Streets, Buildings, water courses, lakes, ponds, railroads, cemeteries, transmission lines, drainage structures, public utilities, jurisdiction lines (including the location of any city, county or state boundaries crossing or bordering the property being subdivided) and any public utility or private Easements on, immediately adjacent to or contiguous to the property being subdivided.
11. Proposed Rights-of-Way, Streets (including proposed names of Streets), buffers (non-access) or Easements including locations, widths and purposes.
12. Proposed Lot Lines with bearings to the nearest second and distances to the nearest one hundredth of a foot and Lot and Block numbers.
13. All proposed front minimum Building Setback Lines are not to be less than thirty-five (35) feet in width. The aforementioned Building Setback Lines do not apply if the Lot will be served by an approved sanitary sewer system and located on a Street other than a Collector Street or an Arterial. In that case, only front minimum Building Setback Lines must be a minimum of twenty-five (25) feet from the property boundary. If the Lot is a Corner Lot, the minimum front setback line must be thirty-five (35) feet from the property boundary, and the minimum side setback line must be twenty-five (25) feet from the property boundary. If a Lot is located on a Collector or Arterial, as per the classification of the roadway shown on the Alabama Department of Transportation Highway Functional Classification Map, latest edition;, the minimum front building setback shall be fifty (50) feet.
14. Proposed public parks, public school sites or other public open spaces within or adjacent to the land being subdivided.
15. Site data:
 - a. Total acreage of land being subdivided.
 - b. Total number of Lots within proposed Subdivision.
 - c. Total number of linear feet of each proposed Street within the proposed Subdivision.
 - d. Total number of linear feet of all Streets within the proposed Subdivision.
 - e. Site area in square footage of smallest Lot within the Proposed Subdivision.
 - f. Total number and location of Townhouse Lots, if any, within the Proposed Subdivision.

16. Any area within or adjacent to the proposed Subdivision subject to inundation by the 100-Year Flood projections as defined herein, or subject to periodic inundation by storm drainage overflow or ponding, shall be clearly shown and identified on the Proposed Plat. All areas within the proposed Subdivision subject to periodic inundation from drainage overflow or ponding and all areas within the Floodway as defined herein must be included within a designated and dedicated public Easement.

17. The following permits, endorsements and certificates shall be placed on the Proposed Plat (see Appendix I for sample permits, endorsements, and certificates):

- a. Permit to Develop.
- b. Certificate of Utility Availability of all utilities that are involved in or affected by this Subdivision.
- c. Certificate of Flood Hazard Designation.
- d. Certificate of Approval by County Commission.
- e. Acknowledgement by the District Commissioner(s).

18. The location and dimension of all proposed utility and drainage easements in accordance with Section 5.2.16.

19. A notation that all required sidewalks must be satisfactorily constructed prior to the maintenance inspection being performed.

20. A Storm Drainage Plan may be required when additional information or improvements are required to confirm or ensure the adequate conveyance of stormwater runoff or as deemed necessary by the County Engineer. The Plan shall comply with all applicable design and construction requirements noted in these Regulations.

4.3.8 Construction Plans. At the time of submission of the Proposed Plat, the Applicant shall also submit Construction Plans for all required improvements. All plans shall meet the minimum standards of design and general requirements for the construction of public improvements as set forth in these Regulations. Construction Plans shall be drawn at a scale of not less than one (1) inch equals one hundred (100) feet, and shall be of the same size as the Proposed Plat. Construction Plans shall be prepared by a Licensed Professional Engineer. A digital copy of the approved Construction Plans in PDF format shall be submitted to the Office of the County Engineer. The following construction plans shall be included:

1. Street plan containing the following information:

- a. Location of all proposed and existing Streets or Rights-of-Way in or adjacent to the Subdivision.
- b. Width of existing and proposed Rights-of-Way and Easements.
- c. Road or Street names as approved by the County.
- d. Plan and profile of all Streets, showing natural and finished grades drawn to a scale of not less than one (1) inch equals one hundred (100) feet horizontal and one (1) inch equals ten (10) feet vertical.
- e. Cross sections of proposed Streets at a minimum of one hundred (100)- foot stations.
- f. Horizontal curve data for the centerline of each Street, including the Delta, Angle, Tangent and Radius.
- g. Location of all proposed sidewalks, crosswalks and handicap ramps.
- h. Location of proposed water and sanitary sewer utility infrastructure.
- i. Size of Class III, reinforced concrete driveway pipe if required for each Lot.
- j. Location, description and elevation of all required vertical or horizontal references, including, but not limited to any control reference necessary for construction layout.

2. Storm Drainage Plan containing the following information:

- a. Location of proposed and existing drainageways, streams, ponds and detention and/or retention basins within and/or bordering the Subdivision. All proposed drainage structures shall be designed based on the following design storm criteria:
 - i. Ten (10) year design storm for all Minor Streets and roadside open ditches, if applicable, within the Subdivision.
 - ii. Twenty-Five (25) year design storm for all other Streets, roads, drainage structures and open channels.

iii. Open channel ditches, if applicable, shall be designed with good engineering practice and with appropriate Erosion and sedimentation control measures so as to minimize the effects of Erosion and sedimentation. Open channels that have a slope of less than seventy-five one hundredths of a percent (.75%) must be appropriately designed and be constructed of concrete.

iv. Detention and/or retention structures shall be designed to accommodate the ten (10) year, 24 (twenty-four) hour, type II storm event with post development flows no greater than predevelopment flows. Provisions shall be made to pass the one hundred (100) year design flow within a controlled section. Consideration shall be given to existing and proposed structures adjacent to detention and/or retention facilities to protect such structures from the one hundred (100) year discharge from the detention and/or retention facility.

v. All berms, swales, ditches, detention and retention ponds shall be sodded.

vi. All slope paved headwall and/or drainage grates to be used in conjunction with roadside ditches with pipes greater than twenty-four (24) inches in diameter shall be designed using the specifications provided by the Alabama Department of Transportation.

b. Topography at suitable contour intervals to show proposed drainage as approved by the County Engineer.

c. Location, size and invert elevations of proposed drainage structures including culverts, bridges, pipes, drop inlets and peak design flow at each such structure with the return period indicated by subscript shown on the storm drainage plan.

d. Construction details of typical manholes, connections, headwalls (required on all pipe openings) and other drainage structures proposed.

e. Area of land contributing stormwater run-off to each drainage structure along with drainage calculations indicating the information used to determine the flows, such as curve numbers, runoff coefficients, time of concentration, rainfall intensity and other pertinent information used in determining the peak runoff rates.

f. Location and dimensions of Easements and Rights-of-Way for drainageways and maintenance access thereof.

g. Typical cross-sections of each drainageway.

h. Design flows, velocities and depth of flow of water throughout Subdivision and compatibility with existing drainage.

i. If required by the Madison County Flood Damage Prevention Ordinance, as last revised, the elevation of (1) all known high water marks or flood lines (2) base flood levels and (3) all proposed structures, including minimum finished floor elevations of proposed Buildings.

j. The location, description and details of all temporary and permanent Erosion and sedimentation control measures to be utilized including, but not limited to, silt fences, silt dikes, hay bale dikes, construction entrances, siltation ponds and permanent ground cover. The plan must also include a schedule of all Erosion and sedimentation control measures for construction of temporary and permanent control measures and final stabilization.

3. Sanitary Sewer Plan for Subdivisions containing a private or public sanitary sewer collection and treatment system (the County does not own, operate or accept for maintenance private sanitary sewer collection or treatment systems), identifying the location of all existing and proposed sewers, location of sewer laterals, location of each manhole and other sewage system appurtenances including lift stations, oxidation ponds and treatment plants, and the plan and profile of the sewage system. Construction details of typical manholes, connections and other proposed sewage structures shall also be shown. Suitable evidence of all required permits or approvals from state or federal regulatory agencies must also be provided in a form satisfactory to the County Engineer.

4. Water Distribution Plan containing the location and size of water distribution system components including pipes, valves, fittings, hydrants, high-pressure pumping equipment, etc. Suitable evidence of all required permits or approvals from state or federal regulatory agencies must also be provided in a form satisfactory to the County Engineer. The Owner or Developer shall be responsible for providing construction plans, if required, to each utility.

5. The following permits, endorsements and certificates shall be placed on the Construction Plans (see Appendix I for sample permits, endorsements, and certificates):

a. Certificate noting that the intersection sight distance and geometric design in conjunction with this Subdivision meets specifications set forth in the prevailing AASHTO Standards.

Section 4.4. Submission of the Final Plat. In accordance with Section 1.2.5 of these Regulations, no Lot may be sold, leased or transferred until the Final Plat has been approved by the Commission and recorded in the Office of the Judge of Probate.

4.4.1 Application Procedure and Requirements. Following the approval of the Proposed Plat, the Applicant, if he/she wishes to proceed with the Subdivision, shall submit any required fee in accordance with the current fee schedule (including a street light and a street sign fee) and the following documents to the Office of the County Engineer:

1. Application for Final Plat approval in a form satisfactory to the County Engineer.
2. The proposed Final Plat in such size as is acceptable for filing in the Office of the Probate Judge, but shall not exceed twenty-four by thirty-six (24 x 36) inches..
3. A digital copy of the Proposed Final Plat in DWG or DXF format.
4. The Final Plat shall:
 - a. Comply in all respects with the previously approved Proposed Plat.
 - b. Be presented to the County Engineer at least seven (7) days prior to a regularly scheduled meeting of the Commission.
 - c. Be submitted within one (1) year of the date of Proposed Plat approval. Any Final Plat submitted after one (1) year following Proposed Plat approval will not be considered until the Owner or Developer resubmits a Proposed Plat for approval and obtains such approval under any Regulations in effect at the time that the Proposed Plat is resubmitted.
 - d. Be accompanied by a Surety bond meeting the requirements of these Regulations.
 - e. Be accompanied by a written "Title Opinion" certified by a licensed attorney confirming that all names shown on the plat include all Owners of the property being subdivided as of the date of signing and that the Owners of the property are the same persons as those signing the plat.
5. Phase I Report regarding the proposed Subdivision from the Alabama Department of Public Health.

4.4.2 Final Approval. After the County Engineer or his or her designee has reviewed the Final Plat and engineering plans, the County Engineer shall certify to the Commission whether the plat meets the County's regulations. If the Subdivision meets the regulations, it shall be approved by the Commission.

Once the final plat has been signed and recorded pursuant to these regulations and Code of Alabama 1975, § 11-24-2(c), the Developer may proceed with the actual sale, transfer, or lease of any Lots as defined herein. No building development shall take place until the Final Plat has been recorded in the office of the Judge of Probate pursuant to these regulations and Code of Alabama 1975, § 11-24-2(c).

Approval of the Final Plat shall not be deemed as acceptance of the Subdivision for County maintenance. The approval signifies the beginning of the required maintenance period if and only if all phases of construction have been completed and have been approved by the County Engineer. County maintenance will only occur (1) after the Developer has notified the County Engineer that he or she completed the period of maintenance to the satisfaction of the Owner or Developer's engineer and (2) after approval of the construction by the County Engineer. The maintenance period does not begin until the Office of the County Engineer has performed an inspection and received a request from the Owner or Developer's engineer requesting that the maintenance period begin and all other requirements of these Regulations have been satisfied. The Developer or Owner will be responsible for contacting each utility and providing Record Drawings, if required, to each utility.

4.4.3 Signing and Recording of Final Plat.

1. Signing of Plat

a. When a Surety bond is required, the Chairman of the Commission shall endorse approval on the Final Plat after the bond has been approved by the Commission and all the conditions pertaining to the plat have been satisfied.

b. When installation of improvements is required and no Surety bond is provided, the Chairman of the Commission shall endorse approval on the Final Plat only after all conditions have been satisfied, all improvements satisfactorily completed and approved by the County Engineer, and a maintenance Surety meeting the requirements of these Regulations has been submitted.

2. Recording of Plat

a. After the Final Plat has been approved by the Commission and the approval endorsed on the plat, the plat will be returned to the surveyor that submitted the Final Plat for approval. The plat shall be recorded in the Office of the Probate Judge within thirty (30) Days following approval by the Commission.

b. After recording of the plat in the Office of the Probate Judge, the owner or developer, or the owner's or developer's surveyor or engineer, must provide the County Engineer with four (4) copies of the recorded plat, including one (1) 11" x 17" size copy of the plat. If the plat is not recorded in the Office of the Judge of Probate within this period, the plat is null and void, and the acceptance of the plat by the Commission will be deemed to have expired.

4.4.4 Final Plat Requirements. The Final Plat shall be prepared by a Licensed Professional Land Surveyor and shall be clearly and legibly drawn at a convenient scale of not less than one (1) inch equals one hundred (100) feet. The Final Plat, as submitted for approval, shall be prepared in ink on paper of quality suitable for reproduction. The Final Plat shall also be submitted in digital format acceptable to the County. The sheet size shall be of such size as is acceptable for filing at the Office of the Probate Judge, but shall not exceed twenty-four by thirty-six (24 x 36) inches. The Final Plat shall show the following:

1. Name of Subdivision, north point, scale and location.
2. The relation of the land so platted to the Government Survey of the County. The "Point of beginning" as referred to in the written description shall be so indicated.
3. Alabama State Plane Coordinates on all outside boundary corners. All bearings shown on the plat must be referenced to the Alabama State Plane Datum.
4. A permanent elevation within the Subdivision referenced to a known and generally accepted elevation datum (for subdivisions that are within the boundary of a Special Flood Hazard Area).
5. Sufficient data to readily determine and reproduce on the ground the location, bearing and length of every Street line, Lot Line, boundary line, Easement boundary and Block line, whether straight or curved. This shall include the radius, central angle, point of tangency, tangent distance, and arcs and chords.
6. The names and locations of adjoining Subdivisions and Streets, with reference to recorded plats by record name.
7. Streets and Right-of-Ways.
8. The location of Easements, including length, widths and purposes, in accordance with the requirements contained in Section 5.2.16.
9. Lot Lines, Lot and Block numbers and any appropriately designated "Townhouse Lots."
10. Parks, school sites, cemeteries or other public open spaces, if any.
11. The following endorsements, Dedications, statements and certificates shall be placed on the Final Plat and shall be lettered or typed on the Final Plat in such a manner as to insure that the endorsements, Dedications, statements and certificates will be legible on any prints made therefrom (see Appendix I):
 - a. Licensed Professional Land Surveyor's Certificate and reference to deed book and page of the parent tract.
 - b. Certification of Dedication of all Easements, Right-of-Ways and public improvements.
 - c. A Notary's Acknowledgment of the Dedication Certificate referred to in "b" above.
 - d. A Certificate of Approval by the appropriate electric utility distributor.
 - e. A Certificate of Approval by the appropriate water and/or sewer utility.
 - f. A Certificate of Approval by the County Engineer.
 - g. A Certificate of Approval by the Commission.
 - h. A Certificate for Recording by Judge of Probate

i. If applicable, a statement that “The recording of this Subdivision Plat in no way constitutes approval or disapproval of the use of on-site sewage disposal systems by the Alabama Department of Public Health. The Subdivision and Lots are subject to certain conditions of construction which are available for review and should be consulted through the Madison County Office of the Alabama Department of Public Health.”

j. A statement that all drainage pipes beneath driveways which are not installed at the time of final approval shall be installed either by the Applicant or any subsequent Lot Owner in accordance with the approved Storm Drainage Plan. If all drainage pipes beneath driveways are not installed at the time of final approval, a Certificate of Driveway Pipe Schedule by a Licensed Professional Engineer listing the size of all drainage pipes beneath driveways shall be placed on the Final Plat.

k. A statement that no Certificate of Occupancy for any construction shall be issued to any person or entity by the County until all improvements, including all Streets, utilities, drainage structures and other required installations are completed to the satisfaction of the County Engineer as required by these Regulations.

l. The name, address and phone number of Developer, Owner, and Licensed Professional Land Surveyor.

m. A Certificate of Flood Hazard Designation by Licensed Professional Engineer or Land Surveyor, as applicable.

n. A statement of identification of the place of filing of Articles of Incorporation of any homeowners’ association or other similar entity owning or maintaining any “common” area or similar property within the Subdivision.

o. A summary table indicating the linear feet of each Street or road constructed or to be constructed within the Subdivision, the total number of Lots within the Subdivision, together with a notation of the Lot having the smallest total area in square feet, and the total square footage of all utility and drainage easements being dedicated to Madison County.

12. A reference indicating the names and addresses of the current owners and reference to the plat book or deed book and page, evidencing such ownership of all land immediately adjoining the tract of land being subdivided, as such names appear in the records in the Office of the Tax Assessor and the Office of the Probate Judge.

13. A notation that any privacy fences, storage buildings, dog enclosures, or other structures constructed, located, or maintained within any utility and drainage easement may be subject to removal at the owner’s expense if the structure impedes the intended legal use of the easement.

14. A notation that, with an approved guarantee of completion, all required sidewalks must be satisfactorily constructed within a period of two (2) years from the end of the maintenance period and acceptance of the Subdivision by Madison County.

15. Record Drawings. The Applicant shall also submit record, or “as-built”, drawings at the time of final plat approval or before final inspection, giving details of construction and locations of the improvements which have been installed. If installation of improvements is completed under a bond, the Applicant shall submit the Record Drawings to the County upon request of final inspection. The Record Drawings shall be submitted both on a paper copy and in digital format before any final inspection of the Subdivision. Digital files shall be submitted in PDF file format.

ARTICLE V DEVELOPMENT STANDARDS

Section 5.1. Minimum Standards. The following planning and design standards shall be complied with, except where, because of exceptional and unique conditions of topography, location, shape, size, drainage or other physical features of the site, minimum standards specified herein would not reasonably protect or provide for public health, safety or welfare. In addition to the requirements established herein, all Subdivision plats shall comply with the following laws, rules and regulations:

1. All applicable statutory provisions.

2. Any special requirements and rules of the Madison County Office of the Alabama Department of Public Health and/or appropriate state or federal agencies.

3. The rules and standards of the Alabama Department of Transportation if the Subdivision or any Lot contained therein abuts a state highway.
4. The rules and standards of the Alabama Department of Environmental Management (ADEM) and any other appropriate state or federal agencies.
5. The standards and regulations adopted by all boards, commissions, agencies and officials of the County.
6. The standards, specifications and rules of appropriate utility companies.
7. Proposed and Final Plat approval may be withheld if Subdivision is not in conformity with the above laws, rules and regulations or the policy and purpose of these Regulations established in Article I of these Regulations.

Section 5.2. General Requirements.

5.2.1 Character of the Land. Land which the Commission finds to be unsuitable for Subdivision or development due to flooding, improper drainage, steep slopes, rock formations, adverse soil formations or topography, utility Easements or other features which will reasonably be harmful to the safety, health and general welfare of the present or future inhabitants of the Subdivision and or its surrounding areas, shall not be subdivided or developed unless adequate methods are formulated by the Applicant and approved by the Commission, upon recommendation of the County Engineer, to remedy the unsuitable land conditions.

Land within any Floodway shall not be platted for residential occupancy or Building sites. All areas within any Floodway within the proposed Subdivision must be included within a designated drainage Easement. Land outside the Floodway may be platted for residential occupancy in accordance with the provisions of the Madison County Flood Damage Prevention Ordinance.

5.2.2 Subdivision and Street Names. The proposed name of any Subdivision or street located within a proposed Subdivision shall not duplicate, or too closely approximate phonetically, the name of any other Subdivision or Street in the County. The Commission shall have final authority to designate the name of Subdivisions and Streets, which shall be determined at the Proposed Plat approval stage.

5.2.3 Waterbodies and Watercourses. If property being subdivided contains a water body, or portion thereof, Lot Lines shall be so drawn as to distribute the entire ownership of the water body among the fees of adjacent Lots. The Commission may approve an alternative plan whereby the ownership of and responsibility for safe maintenance of the water body is so placed that it will not become a County responsibility. Where a Watercourse separates the buildable area of a Lot from the Street by which it has access, provisions shall be made for installation of a culvert or other structure approved by the County Engineer. No public roadways will be approved which provide access across dams.

5.2.4 Street Plan. The arrangement, character, extent, location and grade of all Streets shall be designed and constructed according to good engineering and land planning principles and shall be integrated with all existing and planned Streets. Consideration for the planning of new Streets shall include topographical conditions, public convenience and safety, and the proposed uses of land to be served by such Streets. All Lots must have access to a City, County or State Street or Road (See Section 3.2).

5.2.5 Continuation of Adjoining Road System. Proposed Streets shall extend existing Streets or their projections, specifically including extension of curb and gutter from an existing Street to a new Street at the same or greater width, but in no case less than the minimum required width, unless the Commission for reasons of topography or design deems variations necessary.

5.2.6 Access to Adjacent Properties. The Commission may require the Developer to provide for road access to an adjoining property by extending roads by Dedication to the boundary of such property. During the design of the Subdivision, the Developer and the Developer's engineer must consider topography and other conditions on adjacent property and the feasibility of extensions of Streets to and across adjacent properties.

5.2.7 Marginal Access Roads. Where, in the opinion of the Commission, development which abuts or has included within the proposed subdivided area any Arterial, the Commission may require a marginal access road or other treatment which may be necessary to provide for the adequate protection of properties, and to afford separation of through and local traffic.

5.2.8 Private Reserve Strips. Private reserve strips (“spite strips”) controlling access to Streets are prohibited.

5.2.9 Additional Width on Existing Roads. Developers of Subdivisions that adjoin existing Roads or Streets with inadequate Rights-of-Way shall dedicate additional Right-of-Way to meet the minimum Right-of-Way requirements noted in these regulations or per the table shown below, whichever is greater, and as per the classification of the roadway shown on the Alabama Department of Transportation Highway Functional Classification Map, latest edition; or, if not provided for otherwise, as determined by the County Engineer.

Roadway Type/Classification	Minimum Right-of Way Width
Alley	25’
Local (With Curb and Gutter)	50’
Local (Without Curb and Gutter)	60’
Collector (Minor)	60-80’
Collector (Major)	80-100’
Arterial (Minor)	120’
Arterial (Major)	120-300’

Developers of Subdivisions that adjoin existing Roads or Streets with inadequate pavement widths shall be required to make improvements to the roadway to meet the requirements of these regulations, or, if not provided for otherwise, as determined by the County Engineer.

1. The entire Right-of-Way and/or roadway width shall be dedicated and/or provided where any part of the Subdivision is on both sides of the existing Street.

2. When the Subdivision is located on only one side of an existing Street, a minimum of one-half (1/2) of the required Right-of-Way and/or roadway width, measured from the centerline of the existing Street, shall be dedicated and/or provided.

5.2.10 Frontage on Improved Roads. No Subdivision shall be approved unless the area to be subdivided shall have frontage on, and access from:

1. An existing state, county or city dedicated, improved and maintained Street or Road.

2. Such State, County or City Street or Road must be suitably improved to provide adequate and safe access to the subdivision. Such factors as, for example but without limitation, the predevelopment and post-development traffic count and the effect of the subdivision on traffic flow and site distance shall be considered in determining the appropriate level of improvement. All improvements must be constructed prior to approval of the Final Plat or be secured by an improvement guarantee required under these Subdivision regulations.

5.2.11 Topography and Arrangement. Streets shall be related appropriately to the topography.

1. All proposed Streets shall be properly integrated with the existing system of Streets.

2. All Arterials shall be properly related to special traffic generators such as industries, business districts, schools, churches and shopping centers; to population densities; and to the pattern of existing and proposed land uses.

3. Minor Streets shall be designed to conform as much as possible to the topography, to discourage through traffic, to permit efficient drainage and utility systems and to require the minimum number of Streets necessary to provide convenient and safe access to property.

4. Proposed Streets shall be extended to the boundary lines of the property to be subdivided unless, in the opinion of the County Engineer, such extension is not necessary or desirable for the coordination of the layout of the Subdivision or with the existing layout of the most advantageous future development of adjacent tracts.

5.2.12 Access to Arterials. Where a Subdivision borders on or contains an existing or proposed Arterial, the Commission may require that access to such Arterial be limited by one of the following means:

1. The Subdivision of Lots so as to back onto the Arterial and front onto a parallel minor Street with the requirement that no access shall be provided from the Arterial, and screening such as plantings or fencing shall be provided in an Easement along the rear property line of such Lots.

2. A series of Cul-De-Sacs, U-shaped Streets, or short loops entered from and designed generally at right angles to such a parallel Street, with the rear lines of their terminal Lots backing onto the Arterial.

3. A marginal access or service Street or Road (separated from the Arterial by a planting or grass strip and having access thereto at suitable points).

5.2.13 Excess Right-of-Way Easements. Right-of-Way or Easement widths in excess of the minimum standards designated in these Regulations shall be required whenever, due to topography or sound engineering practice, additional width is necessary. Easement or Right-of-Way slopes shall not be in excess of three (3) horizontal to one (1) vertical.

5.2.14 Cul-De-Sacs. Dead end Streets shall be provided with a turnaround having a roadway diameter, if curb and gutter is utilized, of at least fifty (50) feet and a Right-of-Way diameter of at least one hundred (100) feet (see Appendix II). If curb and gutter is not utilized, the turnaround shall have a roadway diameter of at least sixty (60) feet and a Right-of-Way diameter of at least one hundred twenty (120) feet. A Cul-De-Sac may extend up to a maximum of one thousand, two hundred (1,200) feet.

5.2.15 Temporary Turnarounds. Dead end Streets as a result of the planned or anticipated phasing of a proposed development or required access to an adjacent property and extend more than three hundred feet (300') in length along the centerline to the nearest intersecting Street and/or exceed eight (8) consecutive Lots shall be provide with a temporary turnaround. The turning area shall be a T-type turnaround per the standard detail provided in these Regulations. A 5' all-inclusive easement shall be provided on either side of the right-of-way. A visual barrier shall be provided at the dead end portion of the street by means of three diamond-shaped reflectors (OM4-3) mounted on a signpost. The reflectors shall be evenly spaced across the width of the street pavement. A No Parking Anytime sign (R7-1) shall be attached to the center signpost.

At the time the development continues into adjacent property, the temporary turnaround shall be removed entirely and the roadway, curb and gutter, and sidewalk shall be extended through the former temporary turnaround and all areas disturbed shall be properly graded and vegetated at the expense of the developer of the adjacent property.

5.2.16 Intersections. Street intersections shall be designed as follows:

1. The intersection sight distance and geometric design of any roadway constructed in conjunction with this Subdivision meets specifications set forth in the prevailing AASHTO Standards.

2. Streets shall be configured so as to intersect as nearly as possible at right angles. A proposed intersection of two (2) new Streets at an angle of less than seventy-five (75) degrees shall not be acceptable. An oblique Street shall be curved approaching an intersection and shall be approximately at right angles for at least one hundred (100) feet therefrom. Not more than two (2) Streets shall intersect at any one point unless specifically approved by the Commission.

3. Proposed new intersections along one side of an existing Road or Street shall, wherever practical, coincide with any existing intersections on the opposite side of such Street. Roads or Streets with centerline offsets of less

than one hundred twenty-five (125) feet shall not be permitted except where the intersected road has separated dual drives without median breaks at either intersection. Where Minor Streets intersect Collectors or Arterials, their alignment shall be continuous. Intersections of Minor Streets with Arterials shall be separated by a distance of at least four hundred (400) feet. Where a road or street intersects a state highway, the design standards of the Alabama Department of Transportation shall apply.

4. Minimum curb radius at the intersection of two (2) minor roads or streets shall be at least twenty-five (25) feet; and minimum curb radius at an intersection involving a Collector shall be at least thirty (30) feet.

5. Intersections shall be designed with a flat grade wherever practical. In hilly or rolling areas, at the approach to an intersection, a leveling area shall be provided having not greater than a five percent (5%) grade at a distance of twenty (20) feet, measured from the nearest edge line of pavement of the intersecting road.

6. Where any Road or Street intersection will involve earth banks or existing vegetation that would create a traffic hazard by limiting visibility, the Applicant shall remove such ground and/or vegetation (including trees) in connection with the grading of the public Right-of-Way to the extent deemed necessary to provide an adequate sight distance.

5.2.17 Minimum Required Easement Width.

Perimeter of Subdivision - Fifteen (15) Feet

Side Lot Line - Five (5) Feet

Rear Lot Line - Five (5) Feet

Adjacent to any Right-of-Way - Ten (10) Feet

Perimeter of Temporary Turnaround - Five (5) Feet (All-Inclusive)

These minimum required easement widths for Side Lot Lines do not apply to Townhouse Lots as defined herein.

5.2.18 Blocks.

1. Blocks shall have sufficient width to provide for two (2) tiers of Lots of appropriate depths. Exceptions to this prescribed Block width shall be permitted in Blocks adjacent to Expressways, Arterials, railroads or waterways where single-tier Lots are required to separate residential development from through vehicular traffic or non-residential uses.

2. Blocks shall not exceed two thousand, two hundred (2,200) feet.

3. Pedestrianways or crosswalks, not less than ten (10) feet wide, may be required by the Commission through the center of Blocks where deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation or other community facilities.

5.2.19 Lots. Lots shall comply with the following requirements:

1. The size, width, depth, shape and orientation of Lots shall be such as the Commission deems appropriate for the location of the Subdivision types of development and use contemplated.

2. For the limited purpose of assignment of a "house number," each Lot shall have a minimum of thirty (30) feet of Street frontage along a public Street unless such lot is a Townhouse lot as defined herein. In such case the lot shall have a minimum of twenty-five (25) feet of street frontage along a Public Street.

3. Depth and width of properties reserved for commercial and industrial purposes shall be adequate to provide for off-road parking and loading for the use contemplated.

4. Double frontage Lots shall be avoided, except where essential to provide separation of residential development from traffic arteries, or to overcome specific disadvantages to topography and orientation.

5. Side Lot Lines should be at right angles to roads, except on curves where side Lot Lines should be radial.

6. Each Lot in a Subdivision shall contain a flood-free Building site a minimum of one (1) foot above the elevation of the 100-Year Flood projection as defined in these Regulations, and outside the limits of any existing Easement or the Building Setback Lines. Base flood elevation data shall be provided for subdivision proposals greater than fifty (50) lots or five (5) acres, whichever is less, in accordance with the Madison County Flood Damage Prevention Ordinance.

7. Each Lot in a Subdivision shall be a minimum of sixty (60) feet in width as measured from Side Lot Line to Side Lot Line at the Building Setback Line.

5.2.20 Estate Lot Subdivisions. All Estate Lot Subdivisions shall comply with the following requirements:

1. Estate Lot Subdivisions may not be re-subdivided for a period of three (3) years from the date of the plat recording.
2. Sidewalks and underground utilities are required in all Estate Lot Subdivisions.
3. Curb and gutter is not required for an Estate Lot Subdivision.

5.2.21 Private Streets. A Private Street is a private vehicular access way shared by and serving two or more Lots, which is not dedicated to the public and is not publicly maintained. Private Streets and Alleys may be established only under the terms of these Regulations. Private Streets shall meet the following requirements:

1. These Regulations and all other County Regulations and applicable federal, state and local laws as they relate to the development of Streets and utilities will apply to all such Private Street developments. All plans concerning Private Streets are subject to review and approval by the Commission as provided herein.

2. The definitions of a "Subdivision" and a "Street" as contained in these Regulations will apply to all Subdivisions or Streets whether public or private.

3. Design and Construction Standards - Private Streets shall conform to the same standards regulating the design and construction of Public Streets.

4. The County may prohibit the creation of any Private Street if, in the County's judgment, the Private Street would negatively impact traffic circulation on Public Streets or impair access to property either on-site or off-site to the Subdivision, impair access to or from public facilities, including schools, parks and libraries or delay the response time of emergency vehicles.

5. Property Associations Required - Subdivisions developed with Private Streets and/or Alleys must have a mandatory Property Owners' Association, which includes all Property served by Private Streets. The Association shall own and be responsible for the maintenance of Private Streets, parks and other Property Owners' Association appurtenances. The Association shall own and be responsible for the maintenance of Streets and other improvements. The Association documents shall be reviewed by the County Attorney and subject to approval by the County to ensure they conform to this and other applicable laws. The documents shall be filed of record in the Office of the Madison County Judge of Probate prior to the approval of the Final Plat of the Subdivision. No portion of the Association documents pertaining to the maintenance of the Private Streets and Alleys and assessments therefor may be amended without the written consent of the County.

6. Private Street Lot - Private Streets and Alleys must be constructed with a separate Lot owned by the Property Owners' Association. This Lot must conform to the County's standards for Public Streets and Alleys. An Easement covering the Street Lot shall be granted to Madison County providing unrestricted use of the Street Lot for utilities and storm drainage systems and the maintenance of the same. This right shall extend to all utility providers, including telecommunication companies, operating within the County. The Easement shall also provide the County with the right of access for any purpose related to the exercise of a governmental service or function, including but not limited to, fire and police protection, inspection and code enforcement. The Easement shall permit the County to remove any vehicle or obstacle within the Street Lot that impairs emergency access.

7. Construction and Maintenance Costs - The County shall not pay for any portion of the costs of construction or maintaining a Private Street.

8. Utilities - Water, sewer and drainage facilities placed within the Private Street and Alley Lot shall be installed to the County standards and dedicated to the County as part of the approval of the Final Plat of the Subdivision.

9. Lighting and Signage - Street lights and signs shall be installed and maintained by the Homeowners' Association subject to approval by the County.

10. Plans and Inspections - Developments proposed with Private Streets must submit to the County the same plans and engineering information required to construct Public Streets and utilities. Requirements pertaining to inspection and approval of improvements prior to the issuance of Building Permits shall apply. Inspection fees charged for these services shall also apply.

11. Waiver of Services - The Subdivision Final Plat and Property Owners' Association documents shall note that certain County services may not be provided on Private Streets. All private traffic regulatory signs shall conform to the Alabama manual on Uniform Traffic Control Devices. Depending on the characteristics of the proposed development, other services may not be provided.

12. Hold Harmless - On any Subdivision Plat which indicates that the Subdivision includes Private Roads, a provision shall be included whereby the Property Owners' Association, as owner of the Private Streets and appurtenances, agrees to release, indemnify, defend and hold harmless the County, any governmental entity and any public utility for damages to the Private Street occasioned by the reasonable use of the Private Street by the governmental entity or public utility; for damages and injury (including death) arising from the condition of said Private Street; for damages and injury (including death) arising from the use of the Private Street by any governmental entity or public utility; and for damages and injury (including death) arising from the use of the Subdivision by any governmental entity or public utility. Further, such language shall provide that all owners of all Lots shall release the County and any public utility for such damages and injuries. The indemnifications contained in this paragraph apply regardless of whether or not such damages and injuries (including death) are caused by the negligent act or omission of the County or of its respective officers, employees or agents.

Section 5.3. Design Standards. All design standards shall be considered minimum requirements. It is the responsibility of the Developer and his or her engineer to communicate and schedule with the County Engineer prior to initiating any and all inspection of road construction process. Any road construction performed without the knowledge and inspection of the County Engineer will not be considered for acceptance by the County.

5.3.1 Right-of-Way Widths. Minimum Street Rights-of-Way shall not be not less than sixty (60) feet in width unless the proposed road is constructed with curb and gutter. In the event of curb and gutter, the minimum Right-of-Way width shall not be less than fifty (50) feet. In no event shall the minimum Right-of-Way width be less than that indicated on any master road plan adopted by the Commission. The Right-of-Way width for any approved alley shall not be less than twenty-five (25) feet.

5.3.2 Roadway Widths. All Roads or Streets which do not utilize curb and gutter shall have a minimum pavement width of twenty-four (24) feet with a minimum shoulder width of six (6) feet. If curb and gutter is used, the pavement width must be at least twenty-six (26) feet. The minimum distance between the back of the curbs on each side of the Street must be at least thirty (30) feet. A minimum of two (2) feet behind the curb must be graded to a level surface extending from the back of the curb (see Appendix II). Pavement width for any approved alley shall not be less than fifteen (15) feet.

5.3.3 Geometric Design. All Streets or roads within the Subdivision must meet the construction standards of the County and must conform to the design standards of these Regulations and applicable AASHTO geometric design policy in regard to acceleration, deceleration and site distance.

5.3.4 Drainage and Inundation. A Drainage Plan shall be provided for such Subdivision by the Owner's or Developer's engineer. The Drainage Plan shall take into consideration the ultimate development of the tributary area in which the proposed Subdivision is located. Adequate provisions shall be made to provide drainage Easements needed within the Subdivision, including sufficient area to allow access to any drainage structures, ditches, etc., for purposes of maintaining said structures, ditches, etc., taking into consideration the saturated development of the tributary area. The design of the stormwater drainage systems shall insure the adequate handling of stormwater runoff and the adequate control of Erosion and sedimentation through the use of properly sized and positioned drainage structures and facilities. Off-premises drainage Easements and improvements may be required to accommodate the drainage of stormwater from the Subdivisions into a natural drainage channel.

Land within any designated Floodway shall not be platted for residential occupancy or Building sites. Any such land must be included within a designated easement as shown on the Proposed and Final Plats. Fill may not be used to raise land within the Floodway. All Subdivisions of land must comply in all aspects with the Madison County Flood Damage Protection Ordinance, as amended.

Fill shall consist of soil or rock materials only and shall be compacted to prevent excessive settlement and shall be protected from Erosion. Fill slopes shall be not steeper than one (1) foot vertical to three (3) feet horizontal

unless steeper slopes are justified and approved by the County Engineer. Fill shall be used only to the extent that it does not adversely affect adjacent properties.

The County Engineer may require additional engineering information deemed necessary to make a decision on Subdivisions and other development that contains an area of questionable drainage.

Lakes, ponds and similar facilities utilized to assist in the control of stormwater runoff from proposed development must be designed to control the ten (10) year storm event with a minimum freeboard of eighteen (18) inches. Adequate outlet structures shall be provided to allow for the safe, non-erosive passage for the one hundred (100) year flow. Design of the facilities should take into consideration sedimentation during the construction of the project by providing additional storage either through over excavation of the pond or basin for collection of this material or by some other means acceptable to the County Engineer. All lakes, ponds, and similar facilities utilized to assist in the control of stormwater runoff from proposed development must be included within a designated easement, including those within a designated Common Area.

All lakes, ponds, and similar facilities utilized to assist in the control of stormwater runoff shall be included within a designated Common Area in all Subdivisions that include any Common Area, Lot, or other property to be owned by a collective or management association.

All best management practices shall be designed and/or installed per the “Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas”, latest edition.

5.3.5 Minimum Grade on Roadways. All roads or streets shall have a minimum grade of three quarters of one percent (0.75%).

5.3.6 Design Speed for Roadways. The design speed for all roads and streets shall be twenty-five (25) miles per hour.

Section 5.4. Construction Requirements. Construction of all roads shall meet the minimum requirements of these Regulations and conform to the latest published edition of the Alabama Department of Transportation’s “Standard Specifications for Highway Construction.” All best management practices shall be designed and/or installed per the “Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas”, latest edition. The Developer shall be responsible for all Erosion control in accordance with ADEM guidelines. The Developer shall be responsible for securing any required permits by ADEM. The Developer shall provide proof to the County prior to Proposed Plat approval that all required permits or approvals from ADEM have been appropriately requested and supported.

5.4.1 Testing: If required by the Subdivision design, topography or soil conditions, all testing shall be at the expense of the Developer and shall be done by an independent testing laboratory approved by the County Engineer. The County Engineer will determine the number and character of tests to be performed and scheduled. Copies of all test reports are to be provided to the County Engineer.

5.4.2 Clearing and Grubbing: All roads shall be graded to their full Right-of-Way width. All such Right-of-Way width areas shall be cleared of all vegetation, trees, stumps, large rocks and other objectionable or unsuitable material prior to grading or filling unless otherwise specifically approved by the County Engineer.

5.4.3 Slope Paving: Slope paving shall be required as determined necessary by the County Engineer. Any other alternatives must be approved by the County Engineer.

5.4.4 Embankment Sections: Roadway fill or embankment of earth material shall be placed in uniform layers, full width, and not exceeding eight inch thickness (loose measurement). Each layer shall be compacted so that a uniform specified density is obtained.

5.4.5 Subgrade: Roadway subgrade shall be compacted and properly shaped prior to the placing of base material. The subgrade shall be full width of regular section (edge of pavement to edge of pavement) and extend two (2) feet outside of curb and gutter. If curb and gutter is not used, the subgrade shall be full width (edge of pavement to edge of pavement) plus a minimum of six (6) feet beyond the edge of pavement. The embankment or subgrade must be inspected by proofrolling or other acceptable compaction testing under the supervision of the County Engineer or his/her designee unless other methods of inspection are approved by the County Engineer. The roadbed shall be proofrolled or compaction tested with a fully loaded (minimum load of twenty-two (22) tons with approved proof of load weight by weight ticket) tandem axle dump truck (furnished by the Developer).

5.4.6 Base: Base course shall meet the requirements for crushed aggregate as set forth in the Alabama Department of Transportation Standard Specifications for Highway Construction (latest edition). Base course shall have a minimum thickness of five (5) inches compacted thickness for the full width of regular pavement section, unless otherwise required by sound, generally accepted engineering practice as determined by the County Engineer. The base must be inspected by proofrolling or other acceptable compaction testing under the supervision of the County Engineer or his/her designee unless other methods of inspection are approved by the County Engineer. The roadbed shall be proofrolled with a fully loaded (minimum load of twenty-two (22) tons with approved proof of load weight by weight ticket) tandem axle dump truck (furnished by the Developer).

5.4.7 Roadway Pavement: All roads and/or Streets shall be paved and comply with the following:

1. The minimum pavement width shall be not less than twenty-four (24) feet on standard sections and twenty-six (26) feet for curb sections. Type of curb to be used shall be approved by the County Engineer (see Appendix II). The minimum pavement width shall not be less than fifteen (15) feet for alleys (see Appendix III attached hereto for a typical alley section).

2. A bituminous pavement layer shall be constructed on a suitable base as approved by the County Engineer. A bituminous Binder Layer at a minimum rate of two hundred twenty-four (224) pounds of approved asphalt plant mix per square yard and a minimum compaction thickness of two (2) inches shall be the minimum initial pavement placed. The Subdivider shall be required to place a minimum of one hundred sixty-five (165) pounds of approved plant mix per square yard at a minimum thickness of one and one-half (1 ½) inches as a wearing surface over, as defined in Section 424 of the latest published edition of the Alabama Department of Transportation Standard Specifications, the Binder layer, as defined in Section 424 of the latest published edition of the Alabama Department of Transportation Standard Specifications for Highway Construction.

5.4.8 Storm Drainage: An adequate storm drainage system including curb, pipes, culverts, headwalls and ditches shall be provided for the drainage of surface water. All drainage pipe shall be class III reinforced concrete pipe. All drainage structures must be designed in accordance with Section 4.3.7 of these Regulations. All drainage ditches shall be stabilized with sod of a suitable type to establish full coverage of the slopes. All drainage ditches, swales, detention ponds and retention ponds shall be stabilized with sod of a suitable type to establish full coverage of the slopes from the top of the bank of any such swale, ditch or pond to the top of the opposite bank. All drainage structures installed in traffic areas shall be backfilled with stone per the applicable standard detail(s) provided in these regulations. At the request of the Owner or Developer, the County Engineer may approve alternate erosion control methods consistent with sound engineering practice such as, but not limited to, hydro seed or fiber netting erosion control with Bermuda seed in lieu of sod. Any such request must be in writing directed to the County Engineer and must reference this Section of these Regulations. The request must indicate the basis for the request and must include certification from the Owner or Developer's engineer that any proposed alternative erosion control method is consistent with sound engineering practice. Merely indicating an alternative method of erosion control on the Proposed Plat or construction plans does not constitute a sufficient request or approval of the Proposed Plat and does not waive the requirement for sod.

5.4.9 Installation of Utilities: After grading is completed and approved by the County Engineer and before any roadbed processing of the subgrade is performed, all underground utilities within the Street or road Right-of-Way shall be installed completely and approved by the County Engineer throughout the length of the Street and across the section. Pavement will not be open cut for installation of utilities. Any utility desiring to cross an existing

Street or road shall dry bore under the Street or road. All utilities located under pavement shall be backfilled with suitable aggregate material as required by the County Engineer.

5.4.10 Topsoil and Grassing: When all construction of Subdivision improvements is completed, all slopes and shoulders shall be covered with a sufficient amount of topsoil which shall be adequately protected from erosion by sod of a suitable type to establish full coverage.

ARTICLE VII REQUIRED IMPROVEMENTS

Section 7.1. Completion of Improvements. Approval of the Final Plat shall be subject to the installation of the improvements and utilities hereinafter designated to the satisfaction of the County Engineer or his designee or the posting of a Surety bond with sufficient Surety to secure the construction and installation of such improvements and utilities.

Section 7.2. Streets. On all Streets within the jurisdiction of these Regulations, an approved hard surfaced permanent type of pavement shall be constructed in accordance with these Regulations. The County Engineer shall approve finished grade, cross-section and profile.

Section 7.3. Curbs and Gutters. Curbs and gutters and/or valley gutters, as applicable, are mandatory in all Subdivisions unless such Subdivision is an Estate Lot Subdivision as defined herein.

Section 7.4. Sidewalks. Construction of sidewalks is required for every Subdivision unless otherwise provided herein. All required sidewalks shall be constructed in accordance with the design detail provided in Appendix II. The sidewalks shall be shown on the Street or road plans and drainage plans, shall be constructed in accordance with these Regulations and shall include appropriate ramps for use by the handicapped. The construction of sidewalks shall be coordinated to minimize damage to the sidewalk during construction of other improvements within the Subdivision. The requirements for sidewalks do not apply if a Subdivision will result in solely lots that have frontage on a public road that existed prior to the date of the application for proposed plat approval, and sidewalks do not exist as of the date of the application on the properties adjacent to the property being subdivided. The construction of all required sidewalks must be completed prior to the maintenance inspection being performed.

Section 7.5. Water System. If a public water supply system is reasonably accessible as determined by the County Engineer and the appropriate water supply utility, then necessary action including obtaining all necessary approvals, permits and Easements or other required property rights shall be taken by the Applicant to extend the public water supply system capable of providing domestic water use. The design and specifications of the water distribution system shall meet the appropriate public water system requirements. Water mains shall be extended the full length or width of the pavement. If a well is required for each Lot, the location, construction and use of such a well shall meet State of Alabama Department of Public Health specifications. All new or replacement water supply systems together with attendant facilities, proposed to be located within an area subject to flood shall be designed and constructed in compliance with the Madison County Flood Damage Prevention Ordinance to minimize or eliminate flood damage.

Section 7.6. Driveways. All driveways and drainage pipes beneath driveways shall be Class III reinforced concrete pipe installed in accordance with the approved drainage plan and shall not adversely impact existing drainage structures or facilities. The construction of all required drainage pipes beneath driveways must be completed prior to the maintenance inspection being performed.

Section 7.7. Sanitary Sewers. Sanitary sewers may be provided where a public sanitary sewerage system is reasonably accessible as determined by the County Engineer and the appropriate sewer utility. On site disposal systems shall be used in instances where no public sanitary sewerage system is available providing approval is received from the Alabama Department of Public Health and/or the Alabama Department of Environmental

Management. The phase one report of the Alabama Department of Public Health must be provided to the Office of the Madison County Engineer at the time of submittal of the Proposed Plat for approval. All new or replacement sanitary sewer systems together with attendant facilities, proposed to be located within an area subject to flood, shall be designed and constructed in compliance with the Madison County Flood Damage Prevention Ordinance to minimize or eliminate flood damage. All new or replacement sanitary sewers placed within an existing public Right-of-Way or easement shall comply with the Madison County policy concerning sewer lines within public Rights-of-Way. All sanitary sewer structures installed in traffic areas shall be backfilled with stone. All new sanitary sewer collection system infrastructure which flows by gravity (manholes and main) shall be installed within the limits and along the centerline of the proposed right-of-way. No other new sanitary sewer collection or transmission infrastructure may be installed within any proposed public right-of-way or easement and shall be installed within an easement dedicated to the sanitary sewer owner and/or operator with a minimum width of ten (10) feet. Sanitary Sewer infrastructure owned and operated by water, sewer, and fire protection authorities and governmental entities may be installed within proposed public rights-of-way and easements of the Subdivision.

Section 7.8. Utilities. All electric, gas, cable and other suited utility services must be installed underground. All new or replacement utility systems together with attendant facilities, proposed to be located within an area subject to flood, shall be designed and constructed in compliance with the Madison County Flood Damage Prevention Ordinance to minimize or eliminate flood damage. A fee for each street light will be assessed. A schedule of fees is available from the Office of the County Engineer.

Section 7.9. Street Signs. The Owner or Developer is responsible for the cost of all proper signage as determined by the County Engineer. The cost will be provided to the Owner or Developer by the County Engineer based on the signage required within the Subdivision.

Section 7.10. Widening and Realignment of Existing Roads. Where a Subdivision borders an existing road with a Right-of-Way less than that specified in these Regulations, the Applicant shall be required to dedicate such additional Right-of-Way for widening or realignment of such roads.

Section 7.11. Drainage Easements. Where a Subdivision is traversed by a Watercourse, drainageway, channel or stream, there shall be provided a storm water Easement or drainage Right-of-Way conforming substantially to the lines of such Watercourse, and of such width and construction, or both, as will be adequate for the purpose of constructing and/or maintaining any needed drainage structures, ditches, etc., as required by the County Engineer.

1. Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road Rights-of-Way, perpetual unobstructed Easements at least fifteen (15) feet in width for such drainage facilities shall be provided across property outside the road lines and with satisfactory access to the road. Easements shall be indicated on the plat. Drainage Easements shall be carried from the road to a natural Watercourse or to other drainage facilities.

2. When an Owner/Developer chooses not to utilize either detention or retention to maintain pre-development flow conditions and when a proposed drainage system will carry water across, or place additional burden on, private property outside the Subdivision, either in an existing drainageway, Watercourse, channel or stream or where no existing drainageway, Watercourse, channel or stream exists across such private property, appropriate drainage rights must be secured by the Owner or Developer and indicated on the plat. Copies of these drainage Easements shall be submitted with the Preliminary Plat.

ARTICLE VIII GUARANTEE OF COMPLETION OF IMPROVEMENTS

Section 8.1. Installation of Required Improvements. The Subdivider shall be responsible for the installation of all required improvements to the Subdivision. This may be accomplished by either the full installation of all required improvements by the Owner or Developer at the time the Final Plat is to be submitted to the Commission, or, in the case of improvements other than those improvements which may be necessary for the safe and secure progression of

the development (such as detention and/or retention and traffic control) by the provision of a financial guarantee of performance. At the time of completion of all improvements, the Owner or Developer shall provide Record Drawings meeting the requirements of these Regulations.

8.1.1 Subdivision Improvement Bond. The guarantee of performance by the Subdivider shall be in the form of an acceptable Surety and shall meet the following requirements:

1. **Acceptance of Surety:** The Surety must be approved by the Commission and the County Attorney.

2. **Value of Surety:** The Surety shall be either Five Thousand Dollars (\$5,000) or one hundred twenty percent (120%) of the estimated cost of installing all remaining, incomplete, or unfinished improvements proposed, including, but not limited to, the installation, construction, and completion of: grading and earthwork, storm drainage infrastructure, base and paving of the Streets, sidewalks, required utilities, and fees or other costs encountered during execution of improvements, whichever is greater. Estimated costs shall be provided by the Developer's engineer and approved by the County Engineer.

8.1.2 Failure to Complete Work. If, within twenty-four (24) months after filing said Surety, or sooner if conditions warrant, the Subdivider has not completed all necessary improvements or if, in the opinion of the Commission, said improvements have not been satisfactorily installed, the bond may be used by the County to complete the improvements in satisfactory fashion, the County may take such steps as may be necessary to require performance under the bond or the County may pursue any other available remedy.

8.1.3 Certificate of Occupancy. Although Lots within the proposed Subdivision may be sold prior to full completion of all improvements, no Certificate of Occupancy will be issued prior to satisfactory completion of all required public improvements.

8.1.4 Guarantee of Driveway Pipes. In subdivisions where curb and gutter is not required, a performance surety or other approved guarantee is required for proposed driveway pipes in the amount of one hundred twenty percent (120%) of the cost of the required improvements in the Subdivision or five thousand dollars (\$5,000), whichever is greater. The term of the guarantee shall be for 24 months. The guarantee will be released upon a satisfactory final inspection of the driveway pipes and receipt of an "as-built" survey showing the location of the pipes, a profile of the ditches, and any other drainage structures or features. If the guarantee has not been released within 24 months, the guarantee shall be forfeited to the County.

Section 8.2. Improvements, Inspection and Certification. The County Engineer or his designee shall inspect the construction of the required improvements (the final inspection). The Applicant shall pay to the County a fee in the amount established by the Commission, and the Chairman of the Commission shall not sign the final Subdivision plat unless such fee has been paid at the time of application for Proposed Plat approval. The fee shall be due and payable upon demand of the County. If the County Engineer finds upon inspection that any of the required improvements have not been constructed in accordance with the County's adopted construction standards and specifications, the Applicant shall be responsible for completing the improvements. Such improvements must be completed within twenty-one (21) days following the date of the final inspection. If the improvements are not completed within this time, an additional inspection shall be required, and the cost of such shall be paid by the applicant. Wherever the cost of improvements is covered by a Surety, the Applicant and the Surety Company shall be severally and jointly liable for completing the improvements according to specifications.

Upon completion of the improvements, the owner or engineer of record as indicated shall file with the Commission a statement (see Appendix I) stipulating the following:

1. That all required improvements are complete (Engineer).
2. That these improvements are in compliance with the minimum standards specified by the Commission and the County Engineer for their construction (Engineer and Owner).
3. That the Applicant knows of no defects from any cause in those improvements (Engineer and Owner).
4. That these improvements are free and clear of any encumbrances or liens (Owner).

5. That all public improvements, including but not limited to, Streets, curbs and gutters, storm drainage structures and appurtenances, and sanitary sewer systems, if any, are located in dedicated Rights-of-Way and/or Easements (Engineer).

Section 8.3. Release of Guarantee. Upon inspection by the County Engineer or his or her designee and satisfactory completion of all required improvements in accordance with these Regulations, the Commission shall authorize the release of the remaining portion of the improvement guarantee.

Section 8.4. Maintenance of Improvements. The Applicant shall be required to file a maintenance Surety with the County Commission prior to the beginning of the maintenance period. The Surety shall be in the amount of Five Thousand Dollars (\$5,000) or twenty-five percent (25%) of the total cost of all improvements, including, but not limited to: grading and earthwork, storm drainage infrastructure, base and paving of the Streets, sidewalks, and all required utilities, in the Subdivision, whichever is greater, in a form satisfactory to the County Attorney in order to ensure the satisfactory condition of the required improvements for a minimum period of two (2) years after the date of acceptance by the Commission and Dedication of same to the County. If the guarantee has not been released within 24 months, the guarantee shall be forfeited to the County. The Applicant may request a maintenance inspection after 21 months from the date of the beginning of the maintenance period. At the end of the 23rd month the maintenance inspection shall have been completed or scheduled, otherwise the Applicant shall be considered in default and the maintenance surety shall be forfeited to the County by the end of the 24-month maintenance period.

The maintenance period shall not begin until a written request by the Owner or Developer's Engineer is submitted to and approved by the Madison County Engineer. The request should be in the form shown in Appendix I. The maintenance Surety will be returned to the Applicant only upon inspection and final acceptance or maintenance by the County Engineer. During this maintenance period, a Developer or Owner may be required to enter into easements or rights-of-way to construct, repair, replace or maintain public improvements.

Section 8.5. Guarantee of Completion of Sidewalks. If the installation of all sidewalks shown on the Construction Plans has not been completed prior to the maintenance inspection being performed, the Applicant shall be required to file a sidewalk Surety with the County Commission. The Surety shall be in the amount of Five Thousand Dollars (\$5,000) or an amount equal to \$25 per linear foot of sidewalk that remains to be constructed in the Subdivision, whichever is greater, in a form of a letter of credit in order to ensure the satisfactory completion of all sidewalks in the Subdivision within a period of two (2) years from the end of the maintenance period and acceptance of the Subdivision by Madison County. If the guarantee has not been released within 24 months, the guarantee shall be forfeited to the County.

APPENDIX E

Monitoring Plan and Results

APPENDIX F

Annual Reports
for Current Permit Cycle

MADISON COUNTY

STORMWATER MANAGEMENT PROGRAM

Annual Report

April 2016 – March 2017

Developed pursuant to:

Madison County's Phase II MS4 Permit # ALR040014
Permit Term: October 1, 2016 – September 30, 2021

Prepared by:

Madison County Public Works Department
266-C Shields Road
Huntsville, AL 35811
May 2017

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I INTRODUCTION

1. BACKGROUND OF STORMWATER MANAGEMENT PROGRAM

Phase I of the U.S. Environmental Protection Agency's (EPA) Municipal Stormwater Program relied on the National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from "medium" and "large" municipal separate storm sewer systems (MS4s). The Phase II Program expanded the Phase I Program by requiring additional operators of "small" MS4s to implement programs and practices to control polluted stormwater runoff.

In Alabama, the NPDES permit program is administered by the Alabama Department of Environmental Management (ADEM). The Phase II Rule requires operators of small MS4s located in "urbanized areas", as delineated by the Bureau of the Census, to apply for NPDES permit coverage. Based on the 2000 Census, part of Madison County was classified as being in an urbanized area. Therefore, the EPA and ADEM designated that area as a regulated small MS4 and required the County to comply with the Phase II Municipal Stormwater Program regulations – obtain coverage under the NPDES General Permit and develop a Stormwater Management Program (SWMP) – to reduce the contamination of stormwater runoff from the MS4 to the maximum extent practicable.

At a minimum, the SWMP must employ control measures to address the following six areas:

- Public Education and Outreach on Stormwater Impacts,
- Public Involvement/Participation,
- Illicit Discharge Detection and Elimination (IDDE),
- Construction Site Stormwater Runoff Control,
- Post-Construction Stormwater Management in New Development and Redevelopment, and
- Pollution Prevention/Good Housekeeping for Municipal Operations.

Madison County's SWMP is comprised of specific actions that will be taken over the five-year permit period to aid in the efforts to protect water quality and reduce pollutant discharges from the County's MS4. The SWMP Plan (SWMPP) details the programs and activities, referred to as best management practices (BMPs), chosen to meet the regulatory requirements, as well as their associated measurable goals and implementation schedules. Madison County's progress in program implementation is documented in annual reports to ADEM.

Copies of the current NPDES General Permit and Madison County's Stormwater Management Program Plan can be viewed at the Madison County Public Works Department or on the Madison County website.

2. PERMIT STATUS

Madison County is currently in its third permit term. The permit was applied for in October 2015. After an administrative extension, General Permit ALR040014 became effective on October 1, 2016 and will expire on September 30, 2021.

3. PURPOSE OF ANNUAL REPORT

To assess the effectiveness of the program, the permit requires an annual review and report of the Stormwater Management Program. The SWMP must be revised, as necessary, to maintain compliance with the permit requirements and must be implemented on all new areas added to the municipal separate storm sewer system. In the annual report, completed and planned activities must be documented, as well as any proposed changes to the program.

4. ANNUAL REPORT COMPONENTS

The permit requires Madison County to submit annual reports to ADEM by May 31st of each year. **The coverage period for this report is April 2016 through March 2017.**

The report includes:

- Narrative report for each of the six control areas including activities/BMPs completed and in progress, an assessment of the control measures, and any revisions made or proposed;
- Summary table of stormwater controls planned/scheduled for the next reporting cycle; and
- Overall evaluation of the Stormwater Management Program including major accomplishments, determination of the program effectiveness, reasons any goals were not performed, and results/analysis of any information collected.

Please note, the BMPs and activities described in this annual report are based on the latest revision of the Madison County SWMPP, updated in December 2016.

All documentation associated with the Stormwater Management Program and annual reports are maintained at the Madison County Public Works Department. The records are available for public review when requested in writing.

5. CONTACTS AND RESPONSIBLE PARTIES

The Public Works Department is responsible for overall program coordination and/or implementation, as well as documentation and annual reporting.

PROGRAM CONTACTS:

Madison County Public Works Department

266-C Shields Road
Huntsville, AL 35811
256-746-2900

<http://www.madisoncountyal.gov/>

Public Works Director – Richard Grace, PE

256-746-2900
rgrace@madisoncountyal.gov

Assistant Public Works Director – Houston Matthews, PE

256-746-2900
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County Environmental Engineer – LaWanda West, EI

256-746-2888
lgwest@madisoncountyal.gov

II NARRATIVE REPORT OF CONTROL MEASURES

1. ACTIONS COMPLETED / IN PROGRESS

A. Public Education and Outreach on Stormwater Impacts

Madison County implements a public education and outreach program to inform the community about the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. The program is designed to reach audiences such as the general public, businesses, and the construction community.

(A1) Stormwater/Pollution Prevention Activity at Annual Drinking Water Festival

The activity “Watershed in a Box” was included in the Madison County Drinking Water Festival. This hands-on activity, along with others, was used to inform attending 4th graders, from all over the County, about stormwater impacts and pollution prevention. Approximately 1,500 students and teachers attended the two-day event in May, representing 17 local schools.

(A2) Stormwater Education for Local Schools

Representatives of the Madison County Soil and Water Conservation District delivered educational programs to students in Madison County – 190 elementary students at two schools, 10 high school students at one school, and 26 students at one university (April, May, March).

(A3) Educational Tips and Facts for Annual Drinking Water Report

Six (6) articles containing tips and facts about stormwater, pollution prevention, nonpoint source pollution, conservation, recycling, etc. were included in the Madison County Drinking Water Report. The report was sent to Water Department customers (approximately 29,500 households/businesses at the time of mail-out) in July.

(A4) Educational Brochures and Fact Sheets for General Public

Educational brochures and fact sheets, relevant to the general public, were displayed all year in the Madison County Public Works Complex which houses the water, inspection, subdivision and engineering departments. The brochures/fact sheets displayed were “Water Quality: How it Works”, “The Care and Maintenance of Your Septic System” and “Get to Know Your H₂O”. In addition, an article titled “Clean Water is Everybody’s Business” was posted on the County website under Stormwater Management, Information on How You Can Do Your Part.

(A5) Stormwater Education and Regulation Training for Construction Community

Madison County helped sponsor the Alabama Erosion and Sediment Control Partnership’s “2016 Clear Water Alabama Seminar and Field Day”. The seminar/field day was conducted on August 24-25, in Madison, AL. The event was designed to help planners, designers, contractors, inspectors, and others learn more about erosion and sediment control practices and products. The brochure advertising the event was also displayed in the Madison County Public Works Complex (which houses the water, inspection, subdivision and engineering departments) during July and August.

(A6) Educational Outreach Efforts with Local Organizations and Partners

Madison County partners with/helps support local organizations already active in educating the public about stormwater, pollution and conservation issues. Madison County displayed the brochure titled “Get to Know Your H₂O” (developed by the Alabama Rivers and Streams Network) all year at the water department office. A water department employee attended a county-wide watershed advisory and clean water partnership meeting where several erosion control/pollution prevention projects and partnership possibilities were discussed (February). Representatives of the Madison County Soil and Water Conservation District delivered educational programs to participants in Madison County – 119 attendees (May, October, November).

A new partnership was formed between the MS4s in the Huntsville/Madison County area. The Alabama Department of Transportation (ALDOT) initiated the partnership so the MS4s could coordinate on future education/outreach programs, share relevant information that would benefit the other MS4s, and communicate more efficiently. Two (2) coordination meetings took place during the reporting period, and Madison County participated in both meetings (October, January).

(A7) Educational Brochures and Fact Sheets for Businesses and Construction Community

The County developed brochure, titled “Do You Need a Construction Stormwater Permit?”, was displayed all year in the Madison County Public Works Complex which houses the water, inspection, subdivision and engineering departments. The brochure was also posted on the County website under Stormwater Management and Subdivisions.

B. Public Involvement on Stormwater Impacts

The SWMP includes ongoing activities for public involvement.

(B1) Public Outreach Efforts with Local Organizations and Partners

Madison County helped sponsor the Alabama Erosion and Sediment Control Partnership’s “2016 Clear Water Alabama Seminar and Field Day”. The seminar/field day was conducted on August 24-25, in Madison, AL. The event was designed to help planners, designers, contractors, inspectors, and others learn more about erosion and sediment control practices and products. The brochure advertising the event was also displayed in the Madison County Public Works Complex (which houses the water, inspection, subdivision and engineering departments) during July and August.

A new partnership was formed between the MS4s in the Huntsville/Madison County area. ALDOT initiated the partnership so the MS4s could coordinate on future education/outreach programs, share relevant information that would benefit the other MS4s, and communicate more efficiently. Two (2) coordination meetings took place during the reporting period, and Madison County participated in both meetings (October, January).

(B2) Public Notification of Planned Activities

The following were advertised in the water department’s annual drinking water report: Huntsville’s “Handle with Care Household Hazardous Waste” program, Madison County recycling specifics (curbside and drop-site), and Stormwater Program contact information. The report was delivered to approximately 29,500 customers in July. Huntsville’s Operation Green Team “Great American Cleanup & Beautification Day” project was sent out through Madison County’s mass email system in March. In addition, the following were posted on the Madison County website: a copy of the SWMP Plan and most current annual report, county recycling programs details (curbside, drop-site, and tire), information about county large debris collection services, a link to Huntsville’s “Handle with Care Household Hazardous Waste” program, and Stormwater Program contact information.

(B3) Support of Local Clean-Up Projects

Madison County supports local clean-up projects by supplying bags and pick-up services for projects requesting assistance. District 3 picked up trash collected from two cleanups conducted by the Flint River Conservation Association’s “Flint River Cleanup and Canoe Trip” – June and September.

(B4) Public Notification of “Handle With Care” Program

Huntsville’s Solid Waste Disposal Authority “Handle with Care” program was advertised in the annual drinking water report. Details included in the report were program contact information, collection days/times, center location and items accepted. The report was delivered to approximately 29,500 customers in July. In addition, a link to the program was included on the county website under Waste Control and Recycling.

(B5) Public Involvement in the Development and Review of the SWMP

Stormwater Program updates were discussed at a local watershed advisory committee meeting in February. Topics discussed were major changes to the re-issued MS4 general permit, a brief overview of the county's revised SWMPP reflecting the new permit requirements, and ways the members can view the entire permit, plan and annual reports on the county website. Committee members were encouraged to review the documents and offer comments/suggestions. Posting the plan and reports on the county website also provides for more opportunities of public review and input.

(B6) Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns

Federal, state and Madison County stormwater contacts were included in the Madison County annual drinking water report, and on the county website. The report was delivered to approximately 29,500 customers in July. There were several emails and calls concerning stormwater. However, all were "quantity" in nature. These concerns were forwarded to the appropriate county department.

C. Illicit Discharge Detection and Elimination (IDDE) Program

Madison County implements an ongoing program to detect and eliminate illicit discharges into the MS4 service area, to the maximum extent practicable.

(C1) Illicit Discharge Detection Training for Madison County Public Works Employees

Refresher training was provided to 18 water department employees in November (engineering staff and crew foremen). Topics discussed were illicit discharges/detection and reporting any findings to a Stormwater Management Program representative. Dry weather screening, on-site sewage disposal system failures and likely priority areas were emphasized.

(C2) Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns

Federal, state and Madison County stormwater contacts were included in the Madison County annual drinking water report, and on the county website. The report was delivered to approximately 29,500 customers in July. There were several emails and calls concerning stormwater. However, all were "quantity" in nature. These concerns were forwarded to the appropriate county department.

(C3) Storm Sewer Map

One structural BMP, within the MS4 boundary, was added to the storm sewer map during the reporting period. Since no other updates were made, a revised map is not being submitted with the annual report. Through a newly established partnership with ALDOT's MS4 personnel, Madison County received GIS files of ALDOT's outfall points in the Huntsville/Madison County area (January). These will be used by the county GIS specialist in order to remove ALDOT's overlapping coverage area from the county's storm sewer map.

(C4) Illicit Discharge Detection and Elimination Plan

After meeting with ALDOT's MS4 personnel and obtaining a list of ALDOT's outfall points that fall within the Madison County MS4 area, the county's outfall priority list was revised to remove the discharge points for which ALDOT is responsible. County stormwater personnel conducted dry-weather screening of the revised priority outfalls (June, November). No illicit discharges were detected at the five sites. The revised priority outfall list is included in Appendix A.

Six suspected illicit discharges/connections were discovered and reported by county personnel. Due to the nature of the situations, five of the six sites were forwarded to the Madison County Health Department. The remaining site was re-

inspected and no problem was detected. To better document such occurrences, an Incident Report was created. A copy of the Incident Report is included in Appendix A.

D. Construction Site Stormwater Runoff Control

Madison County implements a program to reduce, to the maximum extent practicable, pollutants in any stormwater runoff to the MS4 from construction activities that result in a total land disturbance of one or more acres and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one or more acres.

Madison County relies on ADEM to establish minimum standards for construction site erosion and sediment control practices through ADEM's State-wide NPDES construction stormwater regulatory program, and to take enforcement actions against non-compliant construction sites subject to ADEM's permits and regulations.

(D1) Stormwater Education and Regulation Training for Construction Community

Madison County helped sponsor the Alabama Erosion and Sediment Control Partnership's "2016 Clear Water Alabama Seminar and Field Day". The seminar/field day was conducted on August 24-25, in Madison, AL. The event was designed to help planners, designers, contractors, inspectors, and others learn more about erosion and sediment control practices and products. The brochure advertising the event was also displayed in the Madison County Public Works Complex (which houses the water, inspection, subdivision and engineering departments) during July and August.

(D2) Stormwater Program Fact Sheets for Construction Sites

The county developed brochure, titled "Do You Need a Construction Stormwater Permit?", was displayed all year in the Madison County Public Works Complex which houses the water, inspection, subdivision and engineering departments. The brochure was also posted on the County website under Stormwater Management and Subdivisions.

(D3) Publish Stormwater Contact Information in Annual Drinking Water Report/Website and Respond to Public Requests/Concerns

Federal, state and Madison County stormwater contacts were included in the Madison County annual drinking water report, and on the county website. The report was delivered to approximately 29,500 customers in July. There were several emails and calls concerning stormwater. However, all were "quantity" in nature. These concerns were forwarded to the appropriate county department.

(D4) Inspection of Qualifying Construction Sites

Madison County continued following the Standard Operating Procedure (SOP) for inspecting qualifying, priority construction sites within the MS4. County employed Qualified Credentialed Inspectors (QCIs) conducted monthly inspections at five sites. Five warning letters were issued to the developers/owners of two of these sites, requesting them to correct deficiencies in their erosion and sediment control practices. See Appendix B for more details concerning inspections and trained personnel.

(D5) Commercial/Subdivision Construction Site Plan Review and Approval

Madison County continued the current process for approving construction site plans as stated in the *Madison County Subdivision Regulations*. The subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion. Procedures, such as requiring qualifying construction sites to show proof of stormwater permit application before issuing permit to develop and confirming control practices are present on plans and consistent with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*, were utilized. The entire Subdivision Regulations can be viewed on the Madison County website (<http://www.madisoncountyal.gov/departments/public-works/subdivisions>).

(D6) Stormwater Permit Requirement Notification for Qualifying Residential Construction Sites

A checkbox was included on the building permit application form to aid with notifying owners/developers of when a stormwater permit is necessary. There were no qualifying, residential construction sites.

E. Post-Construction Stormwater Management in New Development and Redevelopment

With the application of Madison County's Subdivision Regulations, Madison County implements a post-construction stormwater management plan to address stormwater runoff, to the maximum extent practicable, from subdivision new development and redevelopment projects that disturb greater than one acre and projects less than one acre that are a part of a larger common plan of development or sale.

(E1) Subdivision Development Site Plan Review and Approval

Madison County's subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion: before approval of a Proposed Plat, applicants must submit Construction Plans that include a Storm Drainage Plan; detention and/or retention structures must be designed to accommodate a 10 year-24 hour storm event with post development flows not significantly exceeding predevelopment flows; any Final Plat submitted one year following Proposed Plat approval will not be considered until another Proposed Plat is submitted for re-approval; plus many more requirements. The entire Subdivision Regulations can be viewed on the Madison County website (<http://www.madisoncountyal.gov/departments/public-works/subdivisions>).

(E2) Inspection and Completion of Post-Construction Control Measure Installation

Madison County's subdivision regulations have sufficient procedures for inspecting subdivision development/redevelopment sites and enforceable procedures to either adequately bring any noncompliant projects into compliance or compensate the County for the noncompliance: prior to the final acceptance of the development, the County Engineer or his designee shall conduct a final inspection to verify post-construction BMPs have been installed per design specifications; if any of the required improvements have not been constructed in accordance with the County's specifications, the applicant is responsible for completing the improvements; wherever the cost of the improvements is covered by a surety, the applicant and the surety may be severally or jointly liable for completing the improvements; the remaining portion of the improvement guarantee will not be released until the satisfactory completion of all required improvements; plus more requirements. The entire Subdivision Regulations can be viewed on the Madison County website (<http://www.madisoncountyal.gov/departments/public-works/subdivisions>).

One structural BMP was installed, within the MS4 boundary, during the reporting period – a retention pond in Shields Park Subdivision.

(E3) Long-Term Operation and Maintenance of Post-Construction Control Measures

Madison County assumes responsibility for the operation and maintenance of improvements (including any stormwater structures) after the conclusion of a two-year maintenance period during which the developer/owner maintains the public improvements. Details are included in the latest revision of the *Madison County Subdivision Regulations*. The regulations can be viewed on the Madison County website (<http://www.madisoncountyal.gov/departments/public-works/subdivisions>). Coordination/planning efforts have begun between various County departments to come up with a more efficient process to document when stormwater structures become the County's responsibility.

(E4) Inspection and Maintenance of Post-Construction Control Measures

Coordination/planning efforts have begun between various County departments in order to implement the procedures needed for this BMP. The development of the SOP, the inventory of the structural controls, and the process of inspecting will all be phased-in over the permit life cycle.

(E5) Ensure Policies and Specifications Support Green Infrastructure and Low-Impact Development

No revisions/changes were made to Madison County's subdivision regulations during the reporting period.

F. Pollution Prevention/Good Housekeeping for Municipal Operations

Madison County implements a pollution prevention/good housekeeping program to prevent or reduce the discharge of pollutants in stormwater runoff from municipal operations to the maximum extent practicable.

(F1) Inventory of County Facilities

An inventory list of Madison County operation facilities, within the MS4 boundary, that have the potential to discharge pollutants via stormwater runoff was developed. The list was placed in the SWMP, Appendix K, and submitted to ADEM in January 2017. No changes have been made to the inventory since the submission.

(F2) Standard Operating Procedures for Good Housekeeping Practices

Research has begun on Standard Operating Procedures (SOPs) development for good housekeeping practices. Through a newly established partnership with ALDOT's MS4 personnel, Madison County received a copy of ALDOT's "Transportation Support Facility Manual (Draft) April 2016" in February. The County hopes to utilize this manual for SOP formation applicable to County facilities/operations. SOP development will be phased-in over the permit cycle.

(F3) Stormwater Training for Madison County Public Works Employees

Refresher training was provided to 18 water department employees in November (engineering staff and crew foremen). Topics discussed were illicit discharges/detection and reporting any findings to a Stormwater Management Program representative. Dry weather screening, on-site sewage disposal system failures and likely priority areas were emphasized.

As SOPs are developed for good housekeeping practices (BMP F2), training material will be updated and delivered to appropriate public works employees. Because SOP development will be phased-in over the permit cycle, updates to training material, as well as delivery, will also be phased-in.

(F4) Litter Pollution Reduction from County Roadsides

The BMP description and schedules were revised to include illegal dump sites. Although the rural districts have been conducting illegal dump site clean-ups and installing "no dumping" signs, they have not been documenting the dates or addresses. The districts were asked to try to document/report these occurrences.

County forces and inmates collected litter along roadsides on 71 occasions during the reporting period. Approximately 89 truckloads of waste were collected.

(F5) Herbicide Reduction for County Roadside Maintenance

Madison County continued low herbicide use in Districts 1, 3 and 4. The county roads in District 1 and 4 were maintained with one herbicide application and then mowing the rest of the season. Roadsides in District 3 were maintained by mowing with very minor spraying around obstacles.

(F6) Curbside Recycling for Residents of Rural Madison County

Recycle bins and pick-up services of recycled items were provided for 40,000+ residents. Items collected include plastic, aluminum, steel, paper, newspapers, magazines, household dry cell batteries, cardboard and used motor oil. Totals collected, for both curbside and drop-site recycling, were 4,195 gallons of used motor oil and 2,015 tons of the remaining items combined. Please note, the oil volume includes the city of Huntsville which is not in Madison County's service area.

(F7) Drop-Site Recycling for Residents of Rural Madison County

Four recycling drop-sites were supplied at centralized locations in rural Madison County. The sites were located in Hazel Green, New Hope, New Market and Owens Cross Roads. Items collected include plastic, aluminum, steel, paper, newspapers, magazines and cardboard. Totals collected, for both curbside and drop-site recycling, were 2,015 tons of the items combined.

(F8) Recycling Programs and Large Debris Collection Services for Residents of Rural Madison County

The BMP title, description, goals and implementation schedules were revised to include “large debris collection services”. The County has already been providing this service. The SWMPP was revised to document this practice.

Monthly, large debris collection services were provided to residents in Districts 1, 3 and 4. A tire recycling program allowed residents to dispose of 264 tons of tires at the district offices/landfills.

(F9) Employee Attendance at Stormwater/Pollution Prevention Workshops and Seminars

Madison County employees attended the following: three (3) employees attended the Alabama Technology Transfer Center’s “Erosion Control, Sediment Control, and Stormwater Management on Construction Sites” seminar in March 2016 (placed in this annual report because last year’s report had already been submitted when this seminar was attended); five (5) employees attended the “ALDOT Annual QCI Refresher Training, Part 2: 2-Hour Field Session” in April; eight (8) employees attended the “ALDOT QCI Refresher Training 2016 Classroom Session” in June; and one (1) employee attended the “2016 Clear Water Alabama Seminar and Field Day” in August.

(F10) Inspections of County Facilities and Pollution Prevention BMP Implementation

As SOPs are developed for good housekeeping practices (BMP F2), trained public works employees will be instructed to follow developed SOPs and guidelines of the BMP handbook, *STORMWATER MANAGEMENT FOR COUNTY OPERATIONS AND PROJECTS: A Guidance Document of Pollution Prevention/Good Housekeeping Best Management Practices*, to conduct inspections of County operation facilities. Because SOP development will be phased-in over the permit cycle, updates to the BMP handbook, training on SOPs/inspecting, and the actual facility inspections, will also be phased-in.

2. ASSESMENT OF CONTROLS

A. Public Education/Outreach and Public Involvement

With the use of the annual drinking water festival and annual drinking water report, Madison County was able to reach out to 1,500+ local students and 89,000+ county residents. Even though the quantitative results are hard to measure, Madison County feels these educational and notification efforts are making a positive impact on overall public awareness and involvement.

County customers, developers and contractors are interested in environmental education material as suggested by the disappearance of displayed brochures. The distribution of these brochures and fact sheets, along with the several partnerships Madison County maintains with other local organizations active in public education/involvement programs, will yield more outreach opportunities.

Since the inclusion of stormwater program contacts in the annual drinking water report and on the county website, several emails and phone calls were received concerning stormwater issues. Although all the concerns were about stormwater quantity, it is evident having the contacts available has provided an avenue for more public involvement.

B. IDDE Program

A new partnership was formed between Madison County and ALDOT MS4 personnel. Due to joining/overlapping MS4 areas, this new partnership will allow more efficient communication of relevant information such as non-stormwater discharges/connections. Due to state and local laws, Madison County cannot prohibit non-stormwater discharges into the MS4, has no enforcement authority and cannot inspect private property. Therefore, such partnerships along with employee training and publishing of stormwater program contacts are vital tools for illicit discharge detection and elimination. Public works employees are now becoming more aware of non-stormwater discharges and reporting any suspicious findings, and the public is contacting the public works department with stormwater concerns.

C. Construction Site Stormwater Runoff Control

Since Madison County cannot implement stormwater ordinances and, therefore, has very limited monitoring and enforcement authority concerning stormwater matters (due to state and local laws), the County relies on ADEM to establish minimum standards for construction site erosion and sediment control practices and to take enforcement actions against non-compliant construction sites. However, the requirements set forth in the Madison County Subdivision Regulations do provide an avenue for reviewing subdivision/commercial developments site plans to confirm control practices are present and consistent with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*. This process, supplemented with public education/notification of state permit requirements and the practice of monthly inspections of qualifying construction sites within the MS4, will ultimately help minimize construction sites' adverse impact on water quality.

D. Post-Construction Stormwater Management

Madison County's Subdivision Regulations provide requirements for post-construction stormwater management for subdivision developments and redevelopments. The subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion; have sufficient procedures for inspecting subdivision development/redevelopment sites and enforceable procedures to either adequately bring any noncompliant projects into compliance or compensate the County for the noncompliance; and require the development operators to enter in to a two-year maintenance period after the improvements are accepted by the Madison County Commission (after which the County assumes responsibility of the improvements). These provisions support permanent stormwater management over the life of the properties.

The new General Permit requirement to inspect/maintain post-construction control measures will be assessed after implementation. The development of the SOP, the inventory of the structural controls, and the process of inspecting will all be phased-in over the permit life cycle.

E. Pollution Prevention/Good Housekeeping for Municipal Operations

Madison County provides multiple pollution prevention/reduction programs for county residents. The large number of participants indicates the programs are beneficial.

Madison County's current good housekeeping practices, along with requirements resulting from the new General Permit, will aid municipal operations in preventing and/or reducing the discharge of pollutants in stormwater runoff. SOP development for good housekeeping practices will be phased-in over the permit cycle. Therefore, the updates to the controls based on the SOPs (training and facility inspections) will also be phased-in. Assessment of these practices will be conducted after implementation.

3. REVISIONS TO PROGRAM / PLAN

The current General Permit became effective on October 1, 2016. Incorporated within this reissued permit were several new requirements. Consequently, permit holders were required to submit revised SWMPPs to reflect the program changes planned in order to meet the new permit conditions. The Madison County SWMPP was updated accordingly and submitted to ADEM in January 2017. The majority of the changes below resulted from that revision.

BMP #	REVISION/COMMENT	SWMPP Section
	General	
	Revised cited permit language and/or added new language to match new General Permit (GP)	as needed
	Updated MS4 coverage area statement (now excludes ALDOT areas); included ALDOT coverage maps	2.1, App C
	Updated permit cycle references and dates	2.2
	Updated implementation schedules for control measures	3.1 – 3.6
	Noted responsible parties for coordinating and/or implementing the control measures	3
	Revised monitoring requirements to reflect new GP; added plans for the current permit cycle	4.2
	Revised annual report requirements to reflect new GP	5.1
	Modified list of compiled records to include SOPs, inspection forms, inventory list, and IDDE Plan	5.2
	Public Education and Outreach on Stormwater Impacts	
A1	None	
A2	Revised description to include “partnerships”	3.1.2
A3	None	
A4	Revised description to include “website”	3.1.4
A5	None	
A6	None	
A7	Revised description to include “website”	3.1.7
	Public Involvement on Stormwater Impacts	
B1	None	
B2	None	
B3	None	
B4	None	
B5	Revised description to include “website”	3.2.5
B6	Revised description to include “website”	3.2.6
	Illicit Discharge Detection and Elimination (IDDE)	
	Removed public education/outreach BMPs to reflect new permit language; these BMPs were redundant anyway since they are already found in Public Education and Outreach, Section 3.1	3.3
C1	None	
C2	Revised description to include “website”; BMP C5 in previous SWMPP	3.3.2
C3	BMP C6 in previous SWMPP	3.3.3
C4	Assigned a BMP # to the IDDE Plan – it did not have a BMP # in previous SWMPP	3.3.4
	Construction Site Stormwater Runoff Control	
D1	None	
D2	Revised description to include “website”	3.4.2
D3	Revised description to include “website”	3.4.3
D4	No change to BMP – just cleaned up description/wording	3.4.4
D5	No change to BMP – just cleaned up description/wording	3.4.5
D6	None	

Post-Construction Stormwater Management in New Development and Redevelopment		
E1	None	
E2	None	
E3	None	
E4	New BMP to meet requirements of new GP	3.5.4
E5	BMP E4 in previous SWMPP	3.5.5
Pollution Prevention/Good Housekeeping for Municipal Operations		
F1	New BMP to meet requirements of new GP	3.6.1
F2	New BMP to meet requirements of new GP	3.6.2
F3	Revised to include training on developed SOPs; BMP F1 in previous SWMPP	3.6.3
F4	BMP F2 in previous SWMPP Revised title & schedule to include illegal dump sites (revised May 2017)	3.6.4
F5	BMP F3 in previous SWMPP	3.6.5
F6	BMP F4 in previous SWMPP	3.6.6
F7	BMP F5 in previous SWMPP	3.6.7
F8	BMP F6 in previous SWMPP Revised title, description, goals & schedule to include "large debris collection services" (revised May 2017)	3.6.8
F9	BMP F7 in previous SWMPP	3.6.9
F10	Revised to comply with new GP (references to SOPs, facility list, and checklist; inspection frequency) BMP F8 in previous SWMPP	3.6.10
Appendices		
A	None	
B	None	
C	STORM SEWER MAP DETAILS: added note to re-evaluate outfall definition in 2017; added note about phasing in map update based on re-evaluation; added ALDOT MS4 Coverage Area maps	
D	None	
E	None	
F	None	
G	None	
H	REFERENCES: updated list	
I	None	
J	STANDARD OPERATING PROCEDURES AND COORESPONDING FORMS: new appendix (SOPs to be added when developed)	
K	INVENTORY OF COUNTY FACILITIES WITIN MS4: new appendix (inventory list also added)	

III ACTIVITIES PLANNED FOR THE NEXT REPORTING CYCLE

BMP #	PLANNED/PROPOSED FOR 2017-2018
	Public Education and Outreach on Stormwater Impacts
A1	Include stormwater/pollution prevention activity in annual drinking water festival
A2	Deliver stormwater education to local schools (when opportunities arise)
A3	Include articles on stormwater, pollution, recycling, etc. in annual drinking water report
A4	Display educational brochures for general public at county locations and on county website
A5	Assist other partners with training seminars for local builders, contractors and developers (when opportunities arise)
A6	Participate in, or help sponsor, existing stormwater and water quality outreach programs (when opportunities arise)
A7	Display educational brochures for businesses/construction community at county locations and on county website
	Public Involvement on Stormwater Impacts
B1	Participate in, or help sponsor, watershed/stream clean-ups and workshops (when opportunities arise)
B2	Notify the public of planned activities and ways the public can participate (when events warrant)
B3	Support local community, roadside, school, etc. clean-up projects (when opportunities arise)
B4	Notify public of "Handle with Care" Program in drinking water report and on website
B5	Provide copies of plan/reports to members of local advisory committees and on website
B6	Publish stormwater program contact information in drinking water report & on website Respond to any public requests/concerns (when needed)
	Illicit Discharge Detection and Elimination (IDDE) Program
C1	Update training material if needed
C2	Publish stormwater program contact information in drinking water report & on website Respond to any public requests/concerns (when needed)
C3	Re-evaluate outfall development/definition Begin updating discharge points on map after re-evaluation of outfall development/definition (including removing ALDOT discharge points) Add any new structural BMPs/outfalls to map
C4	Begin updating IDDE plan to reflect new permit requirements and map revisions Begin inspecting outfalls as outlined in the IDDE Plan Investigate any reported problems
	Construction Site Stormwater Runoff Control
D1	Assist other partners with training seminars for local builders, contractors and developers (when opportunities arise)
D2	Supply fact sheets, relevant to construction sites, to developers/owners (when requested or warranted) Display fact sheets at relevant county offices and on website
D3	Publish stormwater program contact information in drinking water report & on website Respond to any public requests/concerns (when needed)
D4	Make sure all construction site inspectors have QCI certifications Continue priority construction site inspections according to SOP Notify ADEM of any non-compliant sites Update SOP if needed
D5	Continue current process for approving construction site plans Require qualifying construction sites to show proof of stormwater permit application
D6	Provide checkbox on building permit form to notify when a stormwater permit is needed Continue following SOP guidelines Update SOP if needed
	Post-Construction Stormwater Management in New Development and Redevelopment
E1	Continue current process of reviewing and approving development site plans
E2	Continue current procedures for inspecting and enforcing BMP installations
E3	Ensure developers/owners under 2-yr maintenance period take care of improvements Assume responsibility of improvements after 2-yr maintenance period ends Correct any operational problems when needed

E4	Develop standard operating procedure for inspecting structural, post-construction BMPs Begin developing inventory list of known structural BMPs within MS4 area Begin inspecting structural BMPs as the inventory list is developed Correct any deficiencies noted during inspections Add new structural BMPs to inventory as the county assumes responsibility
E5	Make efforts to ensure regulations/codes do not limit green infrastructure/LID techniques (if needed) Update policies/specifications (if needed)
	Pollution Prevention/Good Housekeeping for Municipal Operations
F1	Update list of county operation facilities (if needed)
F2	Begin developing good housekeeping SOPs for county facilities and county operations Begin implementing any developed SOPs
F3	Begin updating guidance manual/training material to include any developed SOPs
F4	Use county forces and inmates to pick up litter/dump sites along county roadsides (when forces are available)
F5	Continue low herbicide use for county roadside maintenance
F6	Continue curbside recycling program for rural county residents
F7	Continue drop-site recycling program for rural county residents
F8	Apply for recycling grants Implement recycling programs when granted Provide large debris collection services to residents in rural districts
F9	Attend workshops and seminars on stormwater/pollution prevention topics (when opportunities arise)
F10	Begin inspecting facilities and operations (after SOP development and training) Implement necessary BMPs to address pollution/runoff problems (when needed)
	Monitoring Program
	Begin re-evaluating monitoring plan to reflect new general permit requirements

EVALUATION OF PROGRAM

1. MAJOR ACCOMPLISHMENTS

A. Revised Stormwater Management Program Plan

The current General Permit became effective on October 1, 2016. Incorporated within the reissued permit were several new requirements. Consequently, permit holders were required to submit revised SWMPPs to reflect the program changes planned in order to meet the new permit conditions. The Madison County SWMPP was updated accordingly and submitted to ADEM in January 2017. These revisions/changes can be seen in Section II.3 of this annual report.

B. Revised Annual Report

The reissued General Permit, effective October, 1, 2016, had new requirements for the annual report, including content and formatting. Therefore, the annual report layout and contents were updated accordingly.

C. New Partnership with Huntsville/Madison County Area MS4s

A new partnership was formed between the MS4s in the Huntsville/Madison County area. The Alabama Department of Transportation (ALDOT) initiated the partnership so the MS4s could coordinate on future education/outreach programs, share relevant information that would benefit the other MS4s, and communicate more efficiently.

D. Outfall Revisions due to ALDOT MS4 Coverage Area

Through the new partnership with ALDOT's MS4 personnel, Madison County received GIS files of ALDOT's outfall points in the Huntsville/Madison County area. This information will enable Madison County to update the storm sewer map - removing the outfall points, for which ALDOT is responsible for, that fall within the Madison County MS4 area. In addition, Madison County's outfall priority list significantly decreased since the majority of the discharge points, in business areas along state highways, were actually in ALDOT's MS4 coverage area.

E. Seminar/Field Day Sponsorship

Madison County helped sponsor the Alabama Erosion and Sediment Control Partnership's "2016 Clear Water Alabama Seminar and Field Day". The event was designed to help planners, designers, contractors, inspectors, and others learn more about erosion and sediment control practices and products.

2. GOALS NOT PERFORMED AND WHY

All intended actions were performed according to the SWMPP implementation schedules. As noted in the SWMPP and this annual report, some BMPs are not fully functional. The development and/or implementation of these controls will be phased-in over the permit cycle.

3. OVERALL PROGRAM STRENGTHS/WEAKNESSES

A. Strengths

Madison County considers its public education/outreach efforts, local partnerships, subdivision regulations implementation, and litter reduction/recycling practices to be the program's greatest strengths.

- Through the annual Drinking Water Report and the annual Drinking Water Festival, education/outreach endeavors have the potential to reach a sizeable audience more efficiently;
- By combining forces with other partners, better programs can be developed and more residents can be reached;

- Through Madison County’s subdivision regulations, the following are specified: review/approval processes for project initiation and completion, procedures for inspecting subdivision development sites, and practices for long-term operation/maintenance of post-construction controls;
- With the application of litter reduction/recycling programs, rural residents have a means to recycle and dispose of large debris, helping to decrease the occurrences of illegal dumping and burning in the County.

B. Weaknesses

Madison County is organized in to separate districts with multiple departments and various programs. Coordinating stormwater efforts from a central location, coupled with limited resources, can cause activity execution, information gathering, and record keeping to be challenging and difficult to standardize. Consequently, even though the County can satisfy SWMPP conditions, at times implementation of control measures must be phased-in over the permit life cycle.

4. OVERALL PROGRAM EFFECTIVENESS

The control measures performed during the reporting period appear to be effective in meeting the stormwater program goals. The implementation schedules were adhered to, and overall compliance with the General Permit was met. The Permit requirements Madison County could not satisfy were those the County was prohibited to fulfill by State and local laws, as noted in the SWMPP.

Because more measures are scheduled to be phased-in over the permit period, as well as updates made to the IDDE/Monitoring Plans, a better assessment of the program’s effectiveness will be available once these controls/plans are fully implemented and analyzed.

5. FUTURE DIRECTION OF THE PROGRAM

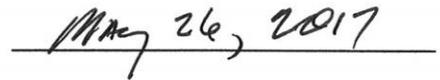
Madison County will continue to follow the SWMPP, conducting activities as previously done. However, as noted in the 2016 updated SWMPP and detailed in its implementation schedules, some of the revised/new BMPs will be phased-in over the current permit’s life cycle. Updates will be made to the storm sewer map and discharge points; SOPs will be developed for structural BMP inspections and good housekeeping practices; procedures will be established for inventorying structural BMPs and inspecting municipal facilities; training material will be updated and delivered; and the IDDE and Monitoring Plans will be re-evaluated and revised, if needed. Most activities will be conducted by Madison County agencies and personnel. However, partnership support will also be utilized.

V CERTIFICATION

I certify under penalty of law that this document and all attachments 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 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 and imprisonment for knowing violations.



Richard Grace, PE, PLS
Madison County Engineer
Madison County, AL



Date

APPENDIX A

(Annual Report)

Illicit Discharge Detection and Elimination Program *Additional Documentation*

Revised Priority Discharge Points

PDP#	LOCATION	COMMENTS
1	Shields Rd/Winchester Rd intersection	Proximity to low density commercial
2	Flint River @ Winchester Rd	Discharge to impaired water body and proximity to low density commercial
3	Old Railroad Bed Rd-south of Alt Harvest Rd	Business (nursery)
4	Jeff Rd between Nick Davis Rd and Douglass Rd	Business (cotton gin)
5	Blake Bottom Rd at Indian Creek	Discharge to impaired water body and proximity to low density commercial

ILLICIT DISCHARGE/CONNECTION INCIDENT REPORT

Department/Employee: _____ Date: _____

Outfall ID # or Street Address: _____

Narrative Description of Location: _____

Type of Incident:

Discharge

Description _____

Connection

Description _____

Other _____

Dry weather conditions

Photos taken

DISCHARGE DESCRIPTION:

NONE

NOT REPORTED

COLOR	<input type="checkbox"/> Clear	<input type="checkbox"/> Brown	<input type="checkbox"/> Green	<input type="checkbox"/> Rust
	<input type="checkbox"/> Other			
ODOR	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Gas	
	<input type="checkbox"/> Other			
APPEARANCE	<input type="checkbox"/> Normal	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Other			
FLOATABLES	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Litter	<input type="checkbox"/> Algae
	<input type="checkbox"/> Suds/Foam	<input type="checkbox"/> Other		
FLOW	<input type="checkbox"/> None	<input type="checkbox"/> Trickle	<input type="checkbox"/> Moderate	<input type="checkbox"/> Substantial
OTHER				

PROBABLE SOURCE(S) OF OBSERVED DISCHARGE:

Dumping

Oil/Solvents/Chemicals

Sewage

Wash water, suds, etc.

Other _____

Narrative Description of Problem Indicators: _____

FURTHER INVESTIGATION: Referred to _____ Date _____

No action necessary Other _____

Emergency (Contacted _____ Date _____)

Comments: _____

APPENDIX B

(Annual Report)

Construction Site Stormwater Runoff Control *Additional Documentation*

Construction Sites Details within MS4

(April 2016-March 2017)

SITE NAME	# of Inspections	# of Warning Letters	# of Complaints	Referred to ADEM
Hazel Green Shoppes	10	4	0	N
Right Fit Self Storage	6	1	0	N
Riverbend Ph 7	9	0	0	N
Shields Park	3	0	0	N
Somerset	1	0	0	N

Qualified Certified Inspectors

LaWanda West
 Christopher Capshaw
 Dale Cross
 Raymond Scott Medley
 Keith Stapler
 Brad Mullins
 Bailee Robinson

Qualified Certified Professionals

John Buxton, PE
 Houston Matthews, PE

APPENDIX G

Definitions and Acronyms

Definitions and Acronyms

ADEM – Alabama Department of Environmental Management

BMP – Best Management Practice

CWA – Clean Water Act

EPA – Environmental Protection Agency

IDDE – Illicit Discharge Detection and Elimination

LID – Low Impact Development

MS4 – Municipal Separate Storm Sewer System

NOI – Notice of Intent

NPDES – National Pollutant Discharge Elimination System

QCI – Qualified Credentialed Inspector

SOP – Standard Operating Procedure

SWMP – Stormwater Management Program

TMDL – Total Maximum Daily Load

Best Management Practices – schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State

Clean Water Act – formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972

Control Measures – best management practices or other methods used to prevent or reduce the discharge of pollutants to water of the State

Green Infrastructure – systems and practices that use or mimic natural processes to infiltrate, evapotranspire or reuse stormwater or runoff on the site where it is generated

Illicit Connections – any man-made conveyance connecting an illicit discharge directly to municipal separate storm sewer

Illicit Discharge – refers to any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under and NPDES permit and discharges resulting from fire fighting activities

Impaired Waters – waters that do not meet applicable water quality standards and are identified on the State of Alabama's 303(d) list

Low Impact Development – an approach to land development that works with nature to manage stormwater as close to its source as possible

Municipal Separate Storm Sewer System – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a State, city, town, county, district, association or other public body designed or used for collecting or conveying stormwater which is not a combined sewer or part of a publicly owned treatment works

National Pollutant Discharge Elimination System – the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits for the discharge of pollutants into waters of the State

Notice of Intent – mechanism used to “register” for coverage under a general permit

Pollutants of Concern – any pollutant (such as sediment, pathogens and biochemical oxygen demand) that has been identified as a cause of impairment to a waterbody

Priority Construction Site – any qualifying construction site in an area where the MS4 discharges to a waterbody which is listed on the most recently approved 303(d) list of impaired waters, a TMDL has been finalized or approved by EPA, or has been assigned the Outstanding Alabama Water use classification

Qualifying Construction Site – construction activities that result in a total land disturbance of greater than or equal to one acre and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one acre or more

Qualified Credentialed Inspector - an operator, operator employee, or operator designated qualified person who has successfully completed initial training and annual refresher Qualified Credentialed Inspection Program (QCIP) training, and holds a valid certification from an ADEM approved cooperating training entity

Stormwater Management Program – a comprehensive program to manage the quality of stormwater discharged from the MS4

Total Maximum Daily Load – water quality assessments that determine the source or sources of pollutants of concern for a particular waterbody, consider the maximum amount of pollutants the waterbody can assimilate, and then allocate to each source a set level of pollutants that it is allowed to discharge

Urbanized Area – a land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile

APPENDIX H

References

References

1. **Alabama Department of Environmental Management:**
Municipal - <http://www.adem.state.al.us/programs/water/municipal.cnt>
Water Quality - <http://www.adem.state.al.us/programs/water/waterquality.cnt>
2. **Alabama Department of Environmental Management:**
National Pollutant Discharge Elimination System General Permit -
<http://www.adem.state.al.us/programs/water/permits/ALR040000StormwaterDischarges.pdf>
3. **Alabama Department of Transportation:**
MS4 Stormwater Management Program Plan
March 2014
4. **City of Madison, Alabama:**
Madison MS4 Storm Water Management Program Plan
March 2016
5. **City of McAllen, Texas:**
Storm Water Management Plan
January 2008
6. **City of Springfield, Oregon:**
Stormwater Management Plan
November 2008
7. **City of Tukwila, Washington:**
Stormwater Management Program
March 2011
8. **Pennington County, South Dakota:**
Storm Water Management Plan
February 2011
9. **U.S. Environmental Protection Agency:**
Municipal Stormwater Program - <http://cfpub.epa.gov/npdes/stormwater/munic.cfm>

APPENDIX I

Illicit Discharge Detection and Elimination Plan

Madison County
Illicit Discharge Detection and
Elimination Plan

for

National Pollutant Discharge Elimination System

Municipal Separate Storm Sewer System

Permit # ALR040014

November 2017

Original: January 2014

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1 OVERVIEW

The Alabama Department of Environmental Management (ADEM) designated urbanized areas of Madison County as a regulated small Municipal Separate Storm Sewer System (MS4) and, consequently, required the County to comply with the Phase II Municipal Stormwater Program regulations – obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit and develop a Stormwater Management Program (SWMP). Under the NPDES permit, Madison County must satisfy minimum control measures relating to illicit discharges to the MS4. This Illicit Discharge Detection and Elimination (IDDE) Plan was designed to meet these requirements. The purpose of the IDDE plan is to outline the procedures to detect and eliminate illicit discharges, and improper disposal, into the MS4 service area, to the extent allowable under State and local law and to the maximum extent practicable, within the County’s jurisdiction.

2 MS4 SERVICE AREA

Areas under the County’s jurisdiction for the purpose of this plan include County right-of-way (ROW) and County-owned facilities within the Huntsville, Alabama Urbanized Area that is in: (1) the unincorporated Madison County areas, (2) the Meridianville area, (3) the Moores Mill area, (4) the Hazel Green area and (5) the Harvest area minus the Alabama Department of Transportation’s (ALDOT) MS4 area along all state highways. See Stormwater Management Program Plan, Section 2.1, for more details.

3 STORM SEWER MAP

For the purpose of the Madison County Stormwater Management Program, a storm sewer map was created to show the locations of outfalls and the names/locations of waters of the State that receive discharges from those outfalls. The map is reviewed annually and updated, when necessary, to reflect any new discharge points and changes. More details concerning the map can be found in the Stormwater Management Program Plan.

4 ILLICIT DISCHARGE DETECTION PROCEDURES

Illicit discharges and improper disposal are identified through citizen reporting, interdepartmental referral, or other routine MS4 inspection activities. The County relies on local citizens, field staff and inspections to detect potential problem areas quickly so they can be addressed before significant water quality degradation occurs.

4.1 *Selection of Priority Outfalls*

Priority outfalls are selected based on:

- likelihood of illicit discharges – land uses associated with business/industrial activities; areas where complaints have been registered in the past; areas with storage of large quantities of material that could result in spills; areas susceptible to illegal dumping; and areas with older sanitary sewer lines;
- likelihood of illicit discharges to impaired waterbodies;

- size of outfall pipe; and
- size of MS4 area draining to one point.

Priority outfalls, identified in the County's MS4 service area, are included in Table 1.

4.2 Inspections of Priority Outfalls

Trained county employees will visually inspect priority outfalls each year. These inspections will be conducted during dry weather (at least 48 hours with no precipitation or 3-4 days of a dry period after long periods of heavy rain). The inspectors will fill out an Inspection Report and take any necessary pictures of the conditions.

4.3 Field Assessments of Non-Priority Outfalls

County employees, who frequent Madison County roads during their daily work routines such as water department employees and road/bridge maintenance crews, provide effective opportunities to document and identify potential problems. Appropriate employees will be trained to watch for suspicious discharges, failing on-site sewage disposal system and illegal dump sites.

Employees will be instructed to report any unknown discharges, suspicious connections and dump sites, as a result of inspections or discovered during daily routines, to a Public Works Stormwater Management Program representative. The stormwater representative will then complete an Incident Report for the site. If further investigation of the situation is necessary or a follow-up inspection is needed, a trained inspector will perform a site inspection and complete an Inspection Report.

4.4 Response to Public Complaints/Concerns

Stormwater Program contact information has been posted on the Madison County website and in the Madison County Annual Drinking Water Report. These provide a mechanism for the public to report any stormwater/discharge concerns. When concerns are reported, a Public Works Stormwater Management Program representative will complete an Incident Report. If further investigation of the situation is necessary or a follow-up inspection is needed, a trained inspector will perform a site inspection and complete an Inspection Report.

5 ILLICIT DISCHARGE INVESTIGATION PROCEDURES

When a discharge is found in the MS4 coverage area, additional efforts are necessary to determine the possible source of the discharge. When necessary, a Stormwater Management Program representative will conduct a closer visual inspection of the discharge to classify the physical appearance. If there are no apparent physical traits (i.e. discoloration, oil, suds, etc.) to help determine the source, coordination with the local water systems will be initiated to see if the source is potable water indicating a water line leak. If potable water is ruled out, the discharge will be examined to see if the source can be classified as any other exempt discharge listed in Table 2. **At any time the source is suspected to be illicit (including any entering from adjacent MS4s) or further examination of the source is restricted due to ROW constraints, a Stormwater Management Program representative will report the discharge to ADEM through the eComplaint System,**

with the exception of suspected leaking septic tanks/sewage and illegal dump sites. Discovered wastewater and dump sites will be reported to the Madison County Health Department by email/phone.

Due to State and local laws, Madison County has very limited enforcement authority and cannot inspect private property. Likewise, Madison County cannot prohibit, through ordinance or other regulatory mechanism, non-storm water discharges into the MS4 and cannot implement appropriate enforcement procedures and actions to correct illicit discharge problems.

6 DOCUMENTATION

Inspection and incident reports will be used to document field assessment activities, such as the number of outfalls inspected, any complaints received, and steps taken to locate discharge sources.

Discharges/problems reported to ADEM or other agencies will be documented on the appropriate form. Recorded information will include outfall identification, discharge characteristics, and time/date of notification.

7 TRAINING

Appropriate county employees will be trained on stormwater issues, to detect illicit discharges and connections, and to report any findings to a Public Works Stormwater Management Program representative. Employees who frequent county roads during their normal work routines, such as water department employees and road/bridge maintenance crews, and who will be utilized for field assessments of non-priority areas will be targeted for the training. Refresher courses will be provided as needed to address changes in coverage area, procedures, techniques or staffing.

Employees conducting outfall/site inspections will be trained on appropriate inspection procedures, investigation steps and reporting methods.

8 PLAN EVALUATION

Annually, the components and practices of the Stormwater Management Program Plan is evaluated for effectiveness and compliance. Since the Illicit Discharge Detection and Elimination Plan is part of the overall Stormwater Management Program, it, too, will be evaluated yearly. During the annual review:

- Determine if there are any changes to the MS4 coverage area, and consequently the outfalls;
- If there are new outfalls, determine if any need to be added to the priority list based on criteria set forth in this plan;
- If the MS4 drainage area or impaired waterbodies have changed, update priority list as needed;
- Review Incident Reports to decide if any areas/outfalls need to be added to priority list for more frequent inspections; and
- Assess the current process for inspecting non-priority outfalls based on training/reporting feedback.

Any program changes and/or plan modifications needed, as a result of the annual review, will be documented in the annual reports.

9 COORDINATION WITH ADJACENT MS4s

Madison County will actively participate in meetings between the MS4s in the Huntsville/Madison County area. These meetings will allow MS4s to coordinate on education/outreach programs, share relevant information that would benefit the other MS4s, and communicate more efficiently. This coordination will be especially useful if a suspect discharge is discovered entering/exiting an adjacent MS4 area.

10 APPENDIX

10.1 Tables

TABLE 1 – PRIORITY OUTFALLS

1	Shields Rd/Winchester Rd intersection
2	Flint River @ Winchester Rd
3	Old Railroad Bed Rd – south of Alt Harvest Rd
4	Jeff Rd between Nick Davis Rd and Douglass Rd
5	Blake Bottom Rd @ Indian Creek

TABLE 2 – EXEMPT DISCHARGES

Air conditioner condensate
Dechlorinated swimming pool discharges
Discharges from potable water sources
Diverted stream flows
Flow from riparian habitats or wetlands
Flows from fire---fighting activities
Footing drains
Foundation drains
Individual residential car washing
Irrigation water—including lawn & landscape
Rising ground waters
Springs
Street wash water
Uncontaminated groundwater infiltration
Uncontaminated pumped groundwater
Water from crawl space pumps
Water line flushing

10.2 Reports

IDDE INSPECTION REPORT

Inspector: _____ Date: _____

Outfall ID # or Street Address: _____

Narrative Description of Location: _____

Type of Inspection:

Dry Weather Screening

Follow-up Inspection

Follow-up to Incident Report

Date of last rainfall event _____

Date of report _____

Name/number of informer _____

Photos taken:

DISCHARGE DESCRIPTION: NONE

COLOR	<input type="checkbox"/> Clear	<input type="checkbox"/> Brown	<input type="checkbox"/> Green	<input type="checkbox"/> Rust
	<input type="checkbox"/> Other			
ODOR	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Gas	
	<input type="checkbox"/> Other			
APPEARANCE	<input type="checkbox"/> Normal	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Other			
FLOATABLES	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Litter	<input type="checkbox"/> Algae
	<input type="checkbox"/> Suds/Foam	<input type="checkbox"/> Other		
FLOW	<input type="checkbox"/> None	<input type="checkbox"/> Trickle	<input type="checkbox"/> Moderate	<input type="checkbox"/> Substantial
OTHER				

PROBABLE SOURCE(S) OF OBSERVED DISCHARGE:

Dumping Oil/Solvents/Chemicals Sewage

Wash water, suds, etc. Other _____

Narrative Description of Problem Indicators: _____

FURTHER INVESTIGATION: Referred to _____ Date _____

No action necessary Other _____

Emergency (Contacted _____ Date _____)

Signature of Inspector

Date of Report

IDDE INCIDENT REPORT

Department/Employee: _____ Date: _____

Outfall ID # or Street Address: _____

Narrative Description of Location: _____

Type of Incident:

Discharge

Description _____

Connection

Description _____

Dump Site

Description _____

Other _____

Dry weather conditions

Photos taken

DISCHARGE DESCRIPTION:

NONE

NOT REPORTED

COLOR	<input type="checkbox"/> Clear	<input type="checkbox"/> Brown	<input type="checkbox"/> Green	<input type="checkbox"/> Rust
	<input type="checkbox"/> Other			
ODOR	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Gas	
	<input type="checkbox"/> Other			
APPEARANCE	<input type="checkbox"/> Normal	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Other			
FLOATABLES	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Litter	<input type="checkbox"/> Algae
	<input type="checkbox"/> Suds/Foam	<input type="checkbox"/> Other		
FLOW	<input type="checkbox"/> None	<input type="checkbox"/> Trickle	<input type="checkbox"/> Moderate	<input type="checkbox"/> Substantial
OTHER				

PROBABLE SOURCE(S) OF OBSERVED DISCHARGE:

Dumping

Oil/Solvents/Chemicals

Sewage

Wash water, suds, etc.

Other _____

Narrative Description of Problem Indicators: _____

FURTHER INVESTIGATION: Referred to _____ Date _____

No action necessary Other _____

Emergency (Contacted _____ Date _____)

Comments: _____

10.3 References

Alabama Department of Environmental Management

National Pollutant Discharge Elimination System General Permit

<http://www.adem.state.al.us/programs/water/permits/ALR040000StormwaterDischarges.pdf>

Center for Watershed Protection and Robert Pitt, University of Alabama

Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments

October 2004

City of Bainbridge Island, Washington

Illicit Discharge Detection and Elimination Program Manual

April 2010

City of Daphne, Alabama

Stormwater Management Program Plan

May 2017

City of Glasgow, Kentucky

Illicit Discharge Detection and Elimination Plan

2011

City of Mercer Island, Washington

Illicit Discharge Detection and Elimination Program

June 2009

Environmental Protection Agency

Illicit Detection and Elimination: A Guidance Manual

Madison County, Alabama

Stormwater Management Program Plan

July 2011; Revised-March 2013

Washington County, Minnesota

Illicit Discharge Detection and Elimination Plan

December 2006; Revised-April 2007

10.4 Standard Operating Procedure

MS4 OUTFALL INSPECTIONS

DRY WEATHER SCREENING & REPORTED ILLICIT DISCHARGES

Standard Operating Procedure (SOP)

1 PRIORITY OUTFALLS

- Identify priority outfalls based on likelihood of illicit discharges, proximity to impaired waterbodies, and size of drainage area
- Maintain a priority outfalls list
- Review list annually and update as needed

2 PRIORITY OUTFALLS INSPECTIONS

- Visually inspect priority outfalls each year
- Conduct inspections during dry weather – at least 48 hours with no precipitation or 3-4 days of a dry period after long periods of heavy rain
- Fill out a IDDE Inspection Report for each outfall
- When a discharge is discovered, make efforts to determine the possible source
- If source is determined to be potable water, note on the Inspection Report and report leak to the water department
- If source is determined to be any other exempt discharge (listed in IDDE Plan), note on the Inspection Report
- If source is suspected to be wastewater, note on the Inspection Report and report site to the Madison County Health Department
- Report all other known or suspected illicit discharges, and cases where further examination is restricted due to ROW constraints, to ADEM through the eComplaint System and note on the Inspection Report

3 REPORTED/DISCOVERED ILLICIT DISCHARGES

- Utilize field personnel to conduct field assessments of non-priority areas/outfalls during normal work routines
- If needed, visually inspect discharges/sites when reported/discovered by field personnel or public
- Fill out IDDE Incident Report for each incident
- If site is not discharging at time of inspection, note on the Incident Report and plan a follow up inspection
- Make efforts to determine the possible source of any discharges
- If source is determined to be potable water, note on the Incident Report and turn leak in to the water department
- If source is determined to be any other exempt discharge (listed in IDDE Plan), note on the Incident Report
- If source is suspected to be wastewater or the site is an illegal dump site, note on the Incident Report and notify the Madison County Health Department
- Report all other known or suspected illicit discharges, and cases where further examination is restricted due to ROW constraints, to ADEM through the eComplaint System and note on the Incident Report
- If an area is reported an additional time, add to priority outfalls list to be inspected more frequently

APPENDIX J

Standard Operating Procedures and Corresponding Forms

MS4 OUTFALL INSPECTIONS

DRY WEATHER SCREENING & REPORTED ILLICIT DISCHARGES

Standard Operating Procedure (SOP)

1. Priority Outfalls

- Identify priority outfalls based on likelihood of illicit discharges, proximity to impaired waterbodies, and size of drainage area
- Maintain a priority outfalls list
- Review list annually and update as needed

2. Priority Outfalls Inspections

- Visually inspect priority outfalls each year
- Conduct inspections during dry weather – at least 48 hours with no precipitation or 3-4 days of a dry period after long periods of heavy rain
- Fill out a IDDE Inspection Report for each outfall
- When a discharge is discovered, make efforts to determine the possible source
- If source is determined to be potable water, note on the Inspection Report and report leak to the water department
- If source is determined to be any other exempt discharge (listed in IDDE Plan), note on the Inspection Report
- If source is suspected to be wastewater, note on the Inspection Report and report site to the Madison County Health Department
- Report all other known or suspected illicit discharges, and cases where further examination is restricted due to ROW constraints, to ADEM through the eComplaint System and note on the Inspection Report

3. Reported/Discovered Illicit Discharges

- Utilize field personnel to conduct field assessments of non-priority areas/outfalls during normal work routines
- If needed, visually inspect discharges/sites when reported/discovered by field personnel or public
- Fill out IDDE Incident Report for each incident
- If site is not discharging at time of inspection, note on the Incident Report and plan a follow up inspection
- Make efforts to determine the possible source of any discharges
- If source is determined to be potable water, note on the Incident Report and turn leak in to the water department
- If source is determined to be any other exempt discharge (listed in IDDE Plan), note on the Incident Report
- If source is suspected to be wastewater or the site is an illegal dump site, note on the Incident Report and notify the Madison County Health Department
- Report all other known or suspected illicit discharges, and cases where further examination is restricted due to ROW constraints, to ADEM through the eComplaint System and note on the Incident Report
- If an area is reported an additional time, add to priority outfalls list to be inspected more frequently

IDDE INSPECTION REPORT

Inspector: _____ Date: _____

Outfall ID # or Street Address: _____

Narrative Description of Location: _____

Type of Inspection:

Dry Weather Screening

Follow-up Inspection

Follow-up to Incident Report

Date of last rainfall event _____

Date of report _____

Name/number of informer _____

Photos taken:

DISCHARGE DESCRIPTION: NONE

COLOR	<input type="checkbox"/> Clear	<input type="checkbox"/> Brown	<input type="checkbox"/> Green	<input type="checkbox"/> Rust
	<input type="checkbox"/> Other			
ODOR	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Gas	
	<input type="checkbox"/> Other			
APPEARANCE	<input type="checkbox"/> Normal	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Other			
FLOATABLES	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Litter	<input type="checkbox"/> Algae
	<input type="checkbox"/> Suds/Foam	<input type="checkbox"/> Other		
FLOW	<input type="checkbox"/> None	<input type="checkbox"/> Trickle	<input type="checkbox"/> Moderate	<input type="checkbox"/> Substantial
OTHER				

PROBABLE SOURCE(S) OF OBSERVED DISCHARGE:

Dumping Oil/Solvents/Chemicals Sewage

Wash water, suds, etc. Other _____

Narrative Description of Problem Indicators: _____

FURTHER INVESTIGATION: Referred to _____ Date _____

No action necessary Other _____

Emergency (Contacted _____ Date _____)

Signature of Inspector

Date of Report

IDDE INCIDENT REPORT

Department/Employee: _____ Date: _____

Outfall ID # or Street Address: _____

Narrative Description of Location: _____

Type of Incident:

Discharge

Description _____

Connection

Description _____

Dump Site

Description _____

Other _____

Dry weather conditions

Photos taken

DISCHARGE DESCRIPTION:

NONE NOT REPORTED

COLOR	<input type="checkbox"/> Clear	<input type="checkbox"/> Brown	<input type="checkbox"/> Green	<input type="checkbox"/> Rust
	<input type="checkbox"/> Other			
ODOR	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Gas	
	<input type="checkbox"/> Other			
APPEARANCE	<input type="checkbox"/> Normal	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Other			
FLOATABLES	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Litter	<input type="checkbox"/> Algae
	<input type="checkbox"/> Suds/Foam	<input type="checkbox"/> Other		
FLOW	<input type="checkbox"/> None	<input type="checkbox"/> Trickle	<input type="checkbox"/> Moderate	<input type="checkbox"/> Substantial
OTHER				

PROBABLE SOURCE(S) OF OBSERVED DISCHARGE:

Dumping Oil/Solvents/Chemicals Sewage
 Wash water, suds, etc. Other _____

Narrative Description of Problem Indicators: _____

FURTHER INVESTIGATION: Referred to _____ Date _____

No action necessary Other _____

Emergency (Contacted _____ Date _____)

Comments: _____

SITE PLAN REVIEW PROCEDURES

Subdivision/commercial developments in Madison County's jurisdiction must follow the Madison County Subdivision Regulations/Commercial Site Plan Application Procedures and must submit site plans for approval.

Madison County's subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion. Procedures, such as requiring qualifying construction sites to show proof of stormwater permit application before issuing permit to develop and confirming control practices are present on plans and consistent with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*, are utilized to minimize construction sites' adverse impacts on water quality.

Applicable sections of the *Madison County Subdivision Regulations* can be found in the SWMPP, Appendix D.

The entire Subdivision Regulations and Commercial Site Plan Application Procedures can be viewed at the Public Works Department upon request in writing and on the Madison County website.

Check lists (for commercial sites and subdivision developments) are also used to ensure completeness.

MS4 CONSTRUCTION SITE REVIEW & INSPECTION

Standard Operating Procedure (SOP)

1. VERIFY THE SITE QUALIFIES

- Verify the site/development disturbs 1 or more acres or is a part of a common plan that will disturb 1 or more acres
- Confirm the site falls within the county MS4 coverage area
- IF THE SITE MEETS BOTH CONDITIONS ABOVE, the project qualifies for monthly inspections (notify the stormwater inspector) and proceed with this SOP

2. REVIEW SUBMITTED MATERIAL

- For subdivisions/commercial sites, verify the engineer/owner has applied for an ADEM Stormwater permit and confirm the construction plans contain a section addressing erosion and sediment control
- For residential sites, notify the developer/owner of their responsibility to obtain an ADEM stormwater permit (provide a copy of brochure)
- Do not issue approval to proceed/building permit until these are met
If developer/owner does not obtain an ADEM stormwater permit, notify ADEM of the non-compliant site through eComplaint

3. NOTIFY THE ENGINEER/OWNER

- Send letter informing the engineer/owner the site falls within the county MS4 coverage area and to expect inspections
- Remind the operator to comply with ADEM's permit requirements

4. CONDUCT INSPECTIONS

- Conduct monthly inspections utilizing Stormwater Inspection Report
- If deficiencies are noted (1st offense), send engineer/owner warning letter and a copy of the inspection report
- If actions are not initiated to correct deficiencies by next inspection (2nd offense), send engineer/owner another warning letter (stating next offense will generate an ADEM notification) and a copy of the inspection report
- If actions are not initiated to correct deficiencies by next inspection (3rd consecutive offense), send engineer/owner another warning letter and utilize ADEM's eComplaint system to notify ADEM
- Do not issue Final Approval/Certificate of Occupancy until site is stabilized

5. HANDLE SITE COMPLAINTS

- When receive a complaint about a qualifying construction site, fill out MS4 Construction Site Complaint form
- Investigate to see if the complaint is viable
- If the complaint concerns non-compliant issues, notify engineer/owner/developer of issue by email
- If necessary, send a warning letter or notify ADEM (see Section 4 above)
- Make sure situation is corrected on next inspection (see Section 4 above)

POST-CONSTRUCTION SITE PLAN REVIEW PROCEDURES

Madison County's subdivision regulations specify detailed review, approval and re-approval processes for project initiation and completion: before approval of a Proposed Plat, applicants must submit Construction Plans that include a Storm Drainage Plan; detention and/or retention structures must be designed to accommodate a 10 year-24 hour storm event with post development flows not significantly exceeding predevelopment flows; any Final Plat submitted one year following Proposed Plat approval will not be considered until another Proposed Plat is submitted for re-approval; plus many more requirements.

Madison County's subdivision regulations have sufficient procedures for inspecting subdivision development/redevelopment sites and enforceable procedures to either adequately bring any noncompliant projects into compliance or compensate the County for the noncompliance: prior to the final acceptance of the development, the County Engineer or his designee shall conduct a final inspection to verify post-construction BMPs have been installed per design specifications; if any of the required improvements have not been constructed in accordance with the County's specifications, the applicant is responsible for completing the improvements; wherever the cost of the improvements is covered by a surety, the applicant and the surety may be severally or jointly liable for completing the improvements; the remaining portion of the improvement guarantee will not be released until the satisfactory completion of all required improvements; plus more requirements.

For details, see the latest revision of the *Madison County Subdivision Regulations, Article IV – Approval of Subdivision Plats, Article VIII – Required Improvements, and Article IX – Guarantee of Completion of Improvements* in the SWMPP, Appendix D.

The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on the Madison County website.

Check lists (for commercial sites and subdivision developments) are also used to ensure completeness.

APPENDIX K

Inventory of County Facilities within MS4

County Facilities, within MS4, with Pollution Potential

ADDRESS

DEPARTMENT/OPERATIONS

3210 Hi-Lo Cir, Huntsville 35811

Animal Control
Building Construction
Central Warehouse
District 6 Office
Waste Control/Sanitation

6084 AL Hwy 53, Harvest 35749

District 4 Office