

MADISON COUNTY

STORMWATER MANAGEMENT PROGRAM PLAN

2011

Developed pursuant to:

Madison County's Phase II MS4 Permit # ALR040014
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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 SWMP. During the review, the value of the control measures, or Best Management Practices (BMPs), should be gauged from the outcome of the prescribed measurable goals. In the annual report, completed and planned activities must be documented, as well as any proposed changes to the program. If necessary, a monitoring plan must also be submitted and results noted in the annual report.

The full text of the current NPDES General Permit can be viewed at Madison County's Public Works Department 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. A larger map is provided in Appendix C.

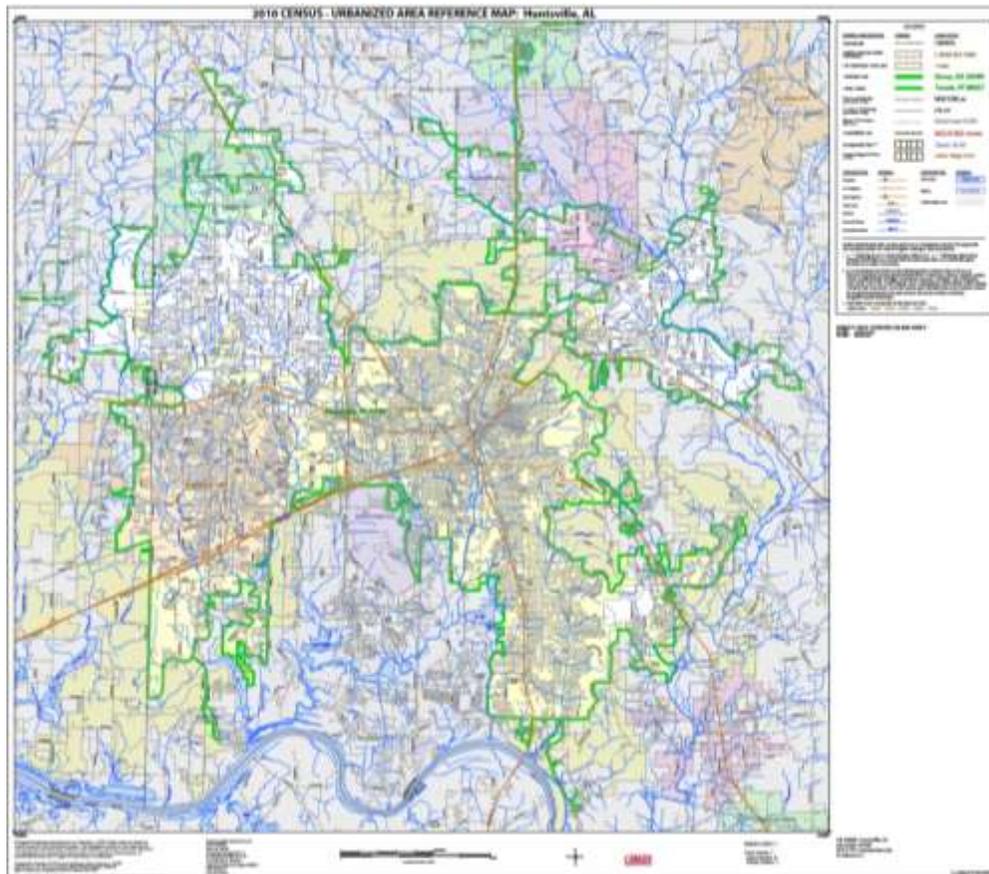


FIGURE 1: 2010 Census Urbanized Area Map of Huntsville, Alabama

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's progress in program implementation, over the first five-year permit term, was documented in the annual reports to ADEM.

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. The second permit term became effective on February 1, 2011 and is scheduled to expire on January 31, 2016.

Annual Reports 2003 through 2010, as well as the permit applications and all supporting documents, can be viewed at Madison County's Public Works Department upon written request.

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 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/Participation,
- C. Illicit Discharge Detection and Elimination (IDDE),
- 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 Best Management Practices to satisfy the permit, and the schedule plan to implement the Best Management Practices.

3.1 Public Education and Outreach on Stormwater Impacts

Madison County must implement a public education and outreach program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of discharges on water bodies and the steps that the public can take to reduce pollutants in storm water 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. 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 84,000 as of June 2011), 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 and handed out at county events. As residents do business in the county, such as applying for building/septic tank permits and setting up water accounts, 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 and deliver it to relevant associations for redistribution. 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	General/overall
A2	Education for Local Schools	General Public (school-age)	Deliver stormwater education to 28 county schools	Educating children promotes public awareness	General/overall
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
A4	Brochures and Fact Sheets for General Public	General Public	Provide stormwater information to residents visiting county offices and events	Exposing residents as they do business with county will result in more public awareness	General/overall
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
A7	Brochures and Fact Sheets for Businesses/ Construction Community	Businesses/ Construction Community	Provide material about permit responsibilities and BMPs – display at county offices and deliver to relevant associations	Supplying educational info. to companies should help reduce pollutants	Awareness of regulations and BMPs; erosion/sediment

Table 2: Public Education and Outreach BMPs – Implementation Schedule

BMP #	TASK	2011	2012	2013	2014	2015
A1	Include stormwater/pollution prevention activity in annual drinking water festival		S	S	S	S
A2	Deliver stormwater education to local schools	C, W	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 Develop or acquire more relevant brochures or fact sheets Display new brochures at county locations Update material if needed	C	S	S S	S S	S S
A5	Assist other partners with training seminars for local builders, contractors and developers	W	W	W	W	W
A6	Participate in, or help sponsor, existing stormwater and water quality outreach programs	C, W	W	W	W	W
A7	Determine associations that can best reach the business/construction community Develop or acquire brochures/fact sheets relevant to this audience Deliver the educational material to the relevant associations for redistribution Display educational material at county offices			S	S	S S

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

3.2 Public Involvement/Participation

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 media and drinking water report, 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. Madison County will provide copies of the plan 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.

3.2.6 Publish Stormwater Contact Information in Annual Drinking Water Report 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 to provide an avenue for the public: (1) to request a viewing of the SWMP Plan and annual report 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 84,000 as of June 2011), this outreach tool will reach most of rural Madison County in a cost efficient manner. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns illicit discharges or non-compliant construction sites, Madison County will notify ADEM.

Table 3: Public Involvement / Participation – 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	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 for review and comments	Will reach a wide range of audiences due to the backgrounds/groups represented	Public awareness and Participation
B6	Stormwater Contact Info in Annual Drinking Water Report and Response to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers; investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM – cost efficient way to reach rural residents; provide avenue for public involvement – to request info or report concerns	General/overall; public participation

Table 4: Public Involvement / Participation BMPs – Implementation Schedule

BMP #	TASK	2011	2012	2013	2014	2015
B1	Participate in, or help sponsor, watershed/stream clean-ups and workshops	C, W	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	W
B4	Notify public of "Handle with Care" Program	C	S	S	S	S
B5	Provide copies of SWMP Plan/annual reports to members of local advisory committees	S	S	S	S	S
B6	Publish stormwater program contact information in annual drinking water report		S	S	S	S
	Respond to any public requests/concerns		W	W	W	W

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

3.3 Illicit Discharge Detection and Elimination (IDDE)

Madison County must:

- (i) Include an ongoing program to detect and eliminate illicit discharges, and improper disposal, into the MS4 service area;
- (ii) Update the storm sewer map, created during the first permit cycle, annually;
- (iii) Include, on the storm sewer map, the location of all outfalls; the names and location of all waters of the State that receive discharges from those outfalls; and structural BMPs owned, operated and maintained in the MS4 boundaries;
- (iv) To the extent allowable under State and local law – prohibit, through ordinance or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and action;
- (v) Implement a program to review and update the IDDE ordinance or other regulatory mechanism to prohibit and eliminate illegal discharges and/or dumping into the MS4; and
- (vi) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

Permit Fulfillment:

The following BMPs were chosen to satisfy permit requirements (i), (ii), (iii), and (vi) above. **State and local laws prohibit Madison County from fulfilling permit requirements (iv) and (v) above** (see Appendix B); a stormwater management representative will report any identified problems to ADEM since Madison County has no enforcement authority.

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 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. The training will be done in conjunction with the stormwater training scheduled for public works employees under the Pollution Prevention/Good Housekeeping component.

3.3.2 Educational Tips and Facts for Annual Drinking Water Report (BMP – C2)

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 84,000 as of June 2011), this educational information will reach most of rural Madison County in a cost efficient manner. (This BMP also complies with the Public Education and Outreach component.)

3.3.3 Educational Brochures and Fact Sheets for General Public (BMP – C3)

Educational brochures and fact sheets relevant to the general public will be developed or acquired, displayed at prominent county locations and handed out at county events. As residents do business in the county, such as applying for building/septic tank permits and setting up water accounts, they will be exposed to stormwater and water quality concepts resulting in more overall public awareness. (This BMP also complies with the Public Education and Outreach component.)

3.3.4 Educational Brochures and Fact Sheets for Businesses and Construction Community (BMP – C4)

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 and deliver it to relevant associations for redistribution. Reminding entities about their stormwater responsibilities and providing information about appropriate Best Management Practices should help reduce the discharge of pollutants. (This BMP also complies with the Public Education and Outreach component.)

3.3.5 Publish Stormwater Contact Information in Annual Drinking Water Report and Respond to Public Requests/Concerns (BMP – C5)

State and Madison County Stormwater Program contacts will be included in the Madison County Annual Drinking Water Report to provide an avenue for the public: (1) to request a viewing of the SWMP Plan and annual report 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 84,000 as of June 2011), this outreach tool will reach most of rural Madison County in a cost efficient manner. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns illicit discharges or non-compliant construction sites, Madison County will notify ADEM. (This BMP also complies with the Public Involvement/Participation component.)

3.3.6 Storm Sewer Map (BMP – C6)

During the first permit cycle, Madison County completed a storm sewer map showing the location of all outfalls and the names and location of all waters of the State that receive discharges from those outfalls. Madison County will update the map by adding any known structural BMPs owned, operated and maintained in the MS4 boundaries. The map will be reviewed annually, as required by the permit, and updated, when necessary, to reflect any new discharge points and changes. Updated maps will be submitted with annual reports. See Appendix C for map development details.

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
C2	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
C3	Brochures and Fact Sheets for General Public	General Public	Provide stormwater information to residents visiting county offices and events	Exposing residents as they do business with county will result in more public awareness	General/overall
C4	Brochures and Fact Sheets for Businesses/ Construction Community	Businesses/ Construction Community	Provide material about permit responsibilities and BMPs – display at county offices and deliver to relevant associations	Supplying educational info. to companies should help reduce pollutants	Awareness of regulations and BMPs; erosion/sediment
C5	Stormwater Contact Info in Annual Drinking Water Report and Response to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers; Investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM – cost efficient way to reach rural residents; provide avenue for public involvement – to request info or report concerns	General/overall; public participation
C6	Storm Sewer Map	MS4 Operation	Add any known structural BMPs to storm sewer map; review map annually and update as necessary	As required by the new general permit	Outdated storm sewer map

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

BMP #	TASK	2011	2012	2013	2014	2015
C1	Develop or acquire training material on illicit discharges and detection Train appropriate public works employees Develop or acquire material for refresher course, if needed due to changes/staffing Conduct refresher course Update training material if needed	C C		W W	S	S
C2	Include articles on stormwater, pollution, recycling, etc. in annual drinking water report	C	S	S	S	S
C3	Display educational brochures at county locations Develop or acquire more relevant brochures or fact sheets Display new brochures at county locations Update material if needed	C	S	S S	S S	S S
C4	Determine associations that can best reach the business/construction community Develop or acquire brochures/fact sheets relevant to this audience Deliver the educational material to the relevant associations for redistribution Display educational material at county offices			S	S	S S
C5	Publish stormwater program contact information in annual drinking water report Respond to any public requests/concerns		S W	S W	S W	S W
C6	Begin adding known structural BMPs to storm sewer map Continuing adding structural BMPs to map Review the storm sewer map and update when necessary	S	S	S S	S	S

C – Completed 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 regulated MS4 from 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.

The SWMP must include the following components:

- (i) 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;
- (ii) A training program for MS4 site inspection staff in the identification of appropriate construction best management practices;
- (iii) 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.
- (iv) Specific procedures for construction site plan review and approval; and
- (v) Procedures to notify ADEM of non-compliant construction sites discovered during periodic inspections.

Permit Fulfillment:

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

Since Madison County cannot implement ordinances and, therefore, has very limited monitoring and enforcement authority (see Appendix B), 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, and to take enforcement actions against non-compliant construction sites subject to ADEM's permits and regulations. Also due to Madison County's limited authority, educational tools will be utilized to supplement the 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. The material will 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. 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 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 to provide an avenue for the public: (1) to request a viewing of the SWMP Plan and annual report 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 84,000 as of June 2011), this outreach tool will reach most of rural Madison County in a cost efficient manner. When complaints are received, Madison County will investigate. If the complaint is viable and it concerns illicit discharges or non-compliant construction sites, Madison County will notify ADEM. (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 develop and implement an inspection process for non-county, priority construction sites – those qualifying constructions sites which discharge stormwater runoff in to impaired waterbodies of the MS4. The building inspection and subdivision departments will be instructed to notify a program representative of any

construction sites requiring a NPDES stormwater permit through ADEM. The representative will then determine if the site is classified as “priority”. For these priority sites, monthly inspections will be conducted to verify the use of controls consistent with ADEM recommendations, and steps will be taken to notify ADEM of any non-compliant sites discovered during the inspections. For qualifying construction sites operated by the county, inspections will follow the construction general permit requirements. The engineering, subdivision and inspection departments will be consulted, and all inspectors will be trained in the identification of proper BMPs.

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

Madison County will review the current process for approving construction site plans as stated in the *Madison County Subdivision Regulations*. To minimize construction sites’ adverse impacts on water quality, at least the following procedures will be utilized: require qualifying construction sites to show proof of stormwater permit application before issuing permit to develop and confirm control practices are present on plans and consistent with ADEM’s regulations. The engineering and subdivision departments will be consulted. If needed, Madison County will update the specifications, to the extent allowable under State law.

3.4.6 Stormwater Permit Application Confirmation 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 application verification is through the Building Inspection Department’s process for issuing permits to build. Therefore, Madison County will review the process and implement procedures to require proof of stormwater permit application 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	Reminding entities about responsibilities and providing info about BMPs should help reduce pollutants	BMP misuse; erosion/sediment
D3	Contact Info in Annual Drinking Water Report and Response to Public Requests/Concerns	General Public	Provide state/county contact info to water department customers; investigate complaints and report illicit discharges/non-compliant sites to ADEM	Report already required by ADEM – cost efficient way to reach rural residents; provide avenue for public to request info or report concerns	General/overall; public participation
D4	Inspection of Qualifying Construction Sites	Construction Community	Develop/implement inspection process for non-county, priority construction sites – monthly inspections, notification of non-compliant sites, and inspector training	As required by the new general permit	Non-compliant priority construction sites
D5	Commercial/Subdivision Construction Site Plan Review and Approval	Construction Community	Review and update, if necessary, the current process for approving construction site plans	As required by the new general permit	Awareness of regulations; erosion/sediment
D6	Permit Application Confirmation for Qualifying Residential Construction Sites	Construction Community	Review current building permit process; require proof of stormwater permit application before issuing building permit	Due to limited authority, only avenue to verify entity has obtained stormwater permit	Non-compliant construction sites

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

BMP #	TASK	2011	2012	2013	2014	2015
D1	Assist other partners with training seminars for local builders, contractors and developers	W	W	W	W	W
D2	Develop fact sheets relevant to construction sites with site plans Develop fact sheets relevant to construction sites w/o site plans Supply the material to developer/owners upon request Update material if needed			S S	W	W S
D3	Publish stormwater program contact information in annual drinking water report Respond to any public requests/concerns		S W	S W	S W	S W
D4	Develop inspection process for priority construction sites (coordinate w/relevant depts) Make sure all construction site inspectors have QCI certifications Begin priority construction site inspections Notify ADEM of any non-compliant sites		S S	S W W	S W W	S W W
D5	Review process for approving construction site plans (coordinate with relevant depts) Update subdivision specifications to reflect any needed changes Implement any new procedures	S S S	S	S	S	S
D6	Review process for issuing building permits (coordinate with building inspection dept.) Implement procedures to require proof of stormwater permit before issuing bldg permit		S	S	S	S

C - Completed 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 for 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 development 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 requiring maintenance agreements and verification of maintenance obligations – the agreements must allow the MS4, or its designee, to conduct inspections of the management practices and account for transfer of responsibility in leases and/or deed transfers; and
- (vi) Plans to review and evaluate policies and ordinances related to building codes, or other local regulations, with a goal of identifying regulatory and policy impediment 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. See the latest revision of the *Madison County Subdivision Regulations, Article IV – Approval of Subdivision Plats* for details in Appendix D. The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on Madison County website (www.co.madison.al.us).

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 Madison County website (www.co.madison.al.us).

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. See the latest revision of the *Madison County Subdivision Regulations, Article IX – Guarantee of Completion of Improvements* for details in Appendix D. The entire Subdivision Regulations can be viewed at the Public Works Department upon request in writing and on Madison County website (www.co.madison.al.us).

3.5.4 Ensure Policies and Specifications Support Green Infrastructure and Low-Impact Development (BMP – E4)

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	As required by the new general permit	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	As required by the new general permit	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	As required by the new general permit	Maintenance of control measures
E4	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	As required by the new general permit	Impediments to green infrastructure & LID techniques

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

BMP #	TASK	2011	2012	2013	2014	2015
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	Review policies for green infrastructure/LID impediments (coord with relevant depts)		S			
	Update policies/specifications if needed		S			
	Make efforts to ensure future regulations/codes do not limit techniques			W	W	W

C – Completed 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 for municipal operations that includes an employee training program using materials designed to prevent and reduce storm water pollution, to the maximum extent practicable, from applicable municipal activities.

Permit Fulfillment:

The following BMPs were chosen for the program:

3.6.1 Stormwater Training for Madison County Public Works Employees (BMP – F1)

To meet permit requirements, 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 during county operations, detecting illicit discharges, assessing flood management projects for impacts on water quality 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 and supplied to the relevant departments. The guidance document can be viewed at the Public Works Department upon request.

3.6.2 Litter Pollution Reduction from County Roadsides (BMP – F2)

Rural county roads are vulnerable to litter pollution. Madison County will use county forces and inmates, when available, to pick up litter along county roadsides and, therefore, decrease county litter pollution.

3.6.3 Herbicide Reduction for County Roadside Maintenance (BMP – F3)

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 District 1 and District 4 and will continue no herbicide use in District 3.

- District 1: PAST – two rounds of herbicide spray and one round of mowing; PRESENT – one spray and two mows
- District 3: PAST – mowing only; PRESENT – mowing only
- District 4: PAST – herbicide only; PRESENT – mixture of herbicide use and mowing

3.6.4 Curbside Recycling for Residents of Rural Madison County (BMP – F4)

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.

3.6.5 Drop-Site Recycling for Residents of Rural Madison County (BMP – F5)

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.

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

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. 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. 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.

3.6.7 Employee Attendance at Stormwater/Pollution Prevention Workshops and Seminars (BMP – F7)

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.

3.6.8 Inspections of County Facilities and Pollution Prevention BMP Implementation (BMP – F8)

Trained public works employees will be instructed to follow the guidelines of the BMP handbook, *STORMWATER MANAGEMENT FOR COUNTY OPERATIONS AND PROJECTS: A Guidance Document of Pollution Prevention/Good Housekeeping Best Management Practices*; conduct inspections of their facilities and operations; and 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 on choosing and maintaining appropriate BMPs to rectify the 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.

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

BMP #	DESCRIPTION	TARGET AUDIENCE	GOALS	RATIONALE FOR BMP	PROBLEM TO ADDRESS
F1	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
F2	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
F3	Herbicide Reduction for Roadside Maintenance	Public Works Employees & Operations	Continue low herbicide use in District 1 and District 4; continue no herbicide use in District 3	Reducing herbicide applications can help decrease herbicide pollution	Herbicide
F4	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
F5	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
F6	Recycling Programs	General Public	Apply for recycling grants which will allow residents to dispose of used tires, electronics, appliances, etc. at county locations	Providing a means for residents to dispose recyclable items will decrease illegal dumping and burning	Litter; dumping
F7	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
F8	Inspections of Facilities and BMP Implementation	County Employees & Operations	Conduct inspections of facilities and operations 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	2011	2012	2013	2014	2015
F1	Develop or acquire training material on stormwater issues and regulations Train appropriate public works employees Develop or acquire material for refresher course, if needed due to changes/staffing Conduct refresher course Update training material if needed	C C		W W	S	S
F2	Use county forces and inmates to pick up litter along county roadsides	C, W	W	W	W	W
F3	Continue low herbicide use for county roadside maintenance	S	S	S	S	S
F4	Continue curbside recycling program for rural county residents	S	S	S	S	S
F5	Continue drop-site recycling program for rural county residents	S	S	S	S	S
F6	Apply for recycling grants Implement recycling programs when granted	C	S	S	S	S
F7	Employees attend workshops and seminars on stormwater/pollution prevention topics	W	W	W	W	W
F8	Inspect facilities and operations Implement necessary BMPs to address pollution/runoff problems	W W	W W	W W	W W	W W

C – Completed 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, the components and practices, as well as program implementation progress, must be examined:

- Best Management Practices are assessed for appropriateness;
- Measurable goal outcomes help determine BMP effectiveness; 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 Monitoring

If the MS4 discharges to an impaired water or to a water for which a Total Maximum Daily Load (TMDL) has been approved by EPA, monitoring may be necessary according to the permit requirements. If monitoring is needed:

- a monitoring plan and monitoring results must be submitted to ADEM annually;
- samples and measurements taken for the purpose of monitoring must be representative of the monitored activity; and
- the analysis must be conducted according to test procedures approved by EPA or the Director of ADEM.

The monitoring plan must address how the BMPs will ensure the discharge will not cause or contribute to the impairment, and it will be used to assess the effectiveness of the BMPs in achieving any assigned wasteload allocations.

When Madison County is required to monitor, the monitoring plan and results can be found in Appendix E. All monitoring records and reports can also 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 reports include:

- an outline of the completed activities and any measured outcomes;
- the progress toward implementing staged BMPs and achieving the associated measurable goals;
- any information collected and analyzed, including monitoring;
- a summary of the stormwater activities planned for the next reporting cycle, including the implementation schedule; and
- any proposed changes to the SWMP, including BMPs, measurable goals, and schedules.

The reporting period for the annual reports is the year prior to the submittal date, not the calendar year. 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;
- Monitoring records and reports;
- 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

Public Works Director – Richard Grace
256-746-2900

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

Assistant County 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

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ATTORNEY AT LAW

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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

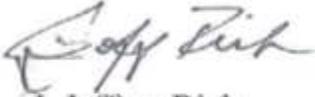
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LAW OFFICES AND MEDIATION CENTERS
305 CHURCH STREET, SUITE 800 HUNTSVILLE, ALABAMA 35801
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Birmingham | Huntsville | Mobile

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July 28, 2011
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this Act is limited to specific situations which do not have application to storm water discharge management practices.

Sincerely,



J. Jeffery Rich
FOR THE FIRM

JJR/cbe

APPENDIX C

Storm Sewer Map Development Details and Urbanized Area Map of Huntsville

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 storm water 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.

NOTE: 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.

APPENDIX D

Subdivision Regulations Applicable to SWMP

MADISON COUNTY

SUBDIVISION REGULATIONS

Madison County Engineering Department
266-C Shields Road
Huntsville, Alabama 35811

Adopted: May 27, 2005
Effective: August 1, 2005
Revised: August 14, 2009
Effective Date of Revisions: August 14, 2009
Revised: August 13, 2010
Effective Date of Revisions: August 13, 2010

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 nor shall any Lots be offered for sale, sold, transferred or leased to the public 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.

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 for the District in which the proposed Subdivision is located and to the Office of the Madison County Building Inspector located at 266-A Shields Road; Huntsville, Alabama. The Commissioner for the District in which the Subdivision is to be located and the Madison County Building Inspector shall review the Proposed Plat and acknowledge notice of the proposed Subdivision by signature on the Proposed Plat. These signatures do not constitute approval of the Proposed Plat, but solely indicate that the Commissioner and the Building Inspector have been informed of the proposed Subdivision. The Proposed Plat, construction plans, any required report from or to the Alabama Department of Environmental Management, a Phase I Report from the Madison County Health Department, 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 Civil 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, change order 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 Proposed Plat Approval. 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 information 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. 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. 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 on the Appendix 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. Any utility provider signing the Proposed Plat must also be provided notice of the Proposed Plat and the informational meeting. Each such utility shall be given at least ten (10) days to review the Proposed Plat and submit a written report to the Commission as to whether all provisions affecting the service to be provided by the Utility are reasonable and adequate. If a utility is not so notified, then the approval or disapproval of the Commission shall not be valid until such utility has been given at least ten (10) days' notice prior to such approval or disapproval as provided herein. The developer must provide copies of the receipts for such mailings or other sufficient proof of delivery to the Office of the County Engineer at least seven (7) days prior to the meeting of the Commission at which the County Engineer will present his or her recommendation.

4.3.5 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.

4.3.6 Proposed Plat Requirements. The Proposed Plat shall be prepared by a Licensed 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. Each separate page or sheet shall include a signature block for the Madison County Engineer. 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 seals (no pre-printed adhesive copies will be accepted) of Licensed Land Surveyor and Licensed Civil Engineer.
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. 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.
8. A delineation of Wetlands and any other conditions significantly affecting the site.
9. 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.
10. Proposed Rights-of-Way, Streets (including proposed names of Streets), buffers (non-access) or Easements including locations, widths and purposes.
11. Proposed Lot Lines with bearings to the nearest second and distances to the nearest one hundredth of a foot and Lot and Block numbers.
12. 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 Major Arterial or Major Collector, as defined by the Madison County Major Street Plan, the minimum front building setback shall be fifty (50) feet.
13. Proposed public parks, public school sites or other public open spaces within or adjacent to the land being subdivided.

14. 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.
15. 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.
16. The following permits, endorsements and certificates shall be placed on the Proposed Plat (see Appendix I for sample permits, endorsements and certificates):
 - a. Permit for Development.
 - b. Certificate of Engineering Design by a Professional Engineer.
 - c. Certificate of Availability of all utilities that are involved in or affected by this Subdivision (water, sewer, telephone, cable, electric, gas).
 - d. Certificate of Flood Hazard Designation.
 - e. Certificate of Approval (Phase I Report) of the Health Department if septic tanks are necessary for Subdivision. If septic tanks are not necessary for the Subdivision, the Developer or Owner must provide proof of application to or approval by the Alabama Department of Environmental Management for operation of a treatment facility.
 - f. Certificate of Approval by County Commission.
17. The location and dimension of all proposed utility and drainage easements in accordance with Section 6.2.16.
18. A notation that no privacy fences, storage buildings, dog enclosures or other structures shall be constructed, located or maintained within any utility and drainage easement.
19. A notation that all required sidewalks must be satisfactorily constructed prior to the maintenance inspection being performed.

4.3.7 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 Civil Engineer registered and in good standing with the State Board of Registration for Professional Engineers and Land Surveyors of Alabama and licensed to practice in the County. 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 all proposed utilities.
 - 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 (see Appendix III for specifications).
 - 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. Electric Distribution Plan, if applicable, containing the location of all poles or subsurface facilities as necessary to serve each Lot or parcel of land within the Subdivision. The Owner or Developer shall be responsible for providing construction plans, if required, to each utility.
6. Gas Distribution Plan, if applicable, containing the location of all above ground and subsurface facilities as necessary to serve each Lot or parcel of land in the Subdivision. The Owner or Developer shall be responsible for providing construction plans, if required, to each utility.

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 original tracing and a black or blue line print of the Proposed Final Plat in such size as is acceptable for filing in the Office of the Probate Judge.
3. A digital CADD/CAM copy of the Proposed Final Plat. Files shall be submitted in DXF or DWG file 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, in a form satisfactory to the County Attorney and in an amount sufficient to guarantee the actual construction and installation of approved public Streets, roads, drainage structures and public utilities. A Surety bond will be required in cases where all construction and installation of the required improvements have not been completed. The Surety bond shall be the greater of Five Thousand Dollars (\$5,000) or one hundred twenty percent (120%) of the estimated cost of construction of improvements not yet completed. If a Surety bond is submitted in the form of a letter of credit, the letter must bear the name of the subdivision for which the letter is submitted.
 - 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. 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 "as built" plans, 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 and all improvements satisfactorily completed and approved by the County Engineer and a warranty or Maintenance Bond as required by these Regulations is provided in the greater amount of Five Thousand Dollars (\$5,000) or twenty-five percent (25%) of the total construction cost of all improvements within the subdivision.

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 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 a suitable permanent mylar reproducible. The Final Plat shall also be submitted in digital format on a four and three-quarter inch (4 ¾") CD Rom or other media 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.
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 6.2.16.
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 Land Surveyor's Certificate and reference to deed book and page of the parent tract.
 - b. Licensed Engineer's Certificate of Engineering Design by Professional Engineer.
 - c. Certification of Dedication of all Easements, Right-of-Ways and public improvements.
 - d. A Notary's Acknowledgment of the Dedication Certificate referred to in "c" above.
 - e. A Certificate of Approval by the appropriate electric utility distributor.
 - f. A Certificate of Approval by the appropriate water and/or sewer utility.
 - g. A Certificate of Approval by the County Engineer (each separate page or sheet shall include a signature block for the County Engineer).
 - h. A Certificate of Approval by the Commission.

- 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 drainage plan. If all drainage pipes beneath driveways are not installed at the time of final approval, a schedule or listing of 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, Licensed Land Surveyor and Engineer of Record.
 - m. A Certificate of Flood Hazard Designation by Licensed Professional Engineer or 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 no privacy fences, storage buildings, dog enclosures or other structures shall be constructed, located or maintained within any utility and drainage easement.

4.4.5 Engineering Plan. The Applicant shall also submit an engineering plan, or “as built” plan, at the time of final plat approval or before final inspection, giving details of construction and locations of the improvements, including all utilities, which have been installed. If installation of improvements is completed under a bond, the Applicant shall submit the engineering “as built” plan to the County upon request of final inspection. Such “as built” plan shall be submitted both on a paper copy and in digital format before any final inspection of the Subdivision. CADD/CAM files shall be submitted in a DXF or DWG file format. Electronic notification letters shall consist of a list of files being submitted, a description of the data in each file, a level/layer schematic of each design file, and a statement conveying rights to the County for the data to be used for G.I.S. purposes. All data submitted shall use NAD 1983 Alabama East Zone coordinates as described in the Code of Alabama (1975), Section 35-2-1 and NGVD 1929. Digital files must display, by text, said state plan coordinates for all points specified in _____ ((insert subdivision name)). Digital submission - Digital files shall be submitted to the Engineering Department on four and three-quarter (4 ¾) inch CD Rom or other media acceptable to the County.

ARTICLE VIII REQUIRED IMPROVEMENTS

Section 8.1. 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 8.2. 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 8.3. 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 8.4. 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 attached as Appendix IV. 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 8.5. 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 8.6. 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 structure or facilities.

Section 8.7. 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 a public Right-of-Way or easement shall comply with the Madison County policy concerning sewer lines within public Rights-of-Way.

Section 8.8. 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 8.9. 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 8.10. 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 8.11. 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 as specified in Section 5.6 shall be submitted with the Preliminary Plat.

ARTICLE IX

GUARANTEE OF COMPLETION OF IMPROVEMENTS

Section 9.1. 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 to the Office of the County Engineer, if requested by the County Engineer, Engineering “As-Built” drawings of the Subdivision providing, without limitation, location and dimensions of all improvements, materials utilized in improvements and other pertinent information as may be required by the County Engineer. The “as-built” drawings must show the actual location of all concrete monuments and iron pins. Alabama State Plane Coordinate Values of all permanent monuments shall be shown on the “as-built” drawings.

9.1.1 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 improvements, including grading, paving of the Streets and installation of all required utilities and fees encountered during execution of improvements, whichever is greater. Estimated costs shall be provided by the Developer’s engineer and approved by the County Engineer.

9.1.2 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.

9.1.3 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.

Section 9.2. 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-20) 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 9.3. 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 9.4. 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 in the Subdivision, whichever is greater, in a form satisfactory to the County Attorney, including a provision for the automatic renewal of the Surety, in order to assure 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. 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 show on Appendix I-18. 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.

APPENDIX E

Monitoring Plan and Results

APPENDIX F

Annual Reports for Current Permit Cycle

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

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. **City of McAllen, Texas:**
Storm Water Management Plan
January 2008
4. **City of Springfield, Oregon:**
Stormwater Management Plan
November 2008
5. **City of Tukwila, Washington:**
Stormwater Management Program
March 2011
6. **Pennington County, South Dakota:**
Storm Water Management Plan
February 2011
7. **U.S. Environmental Protection Agency:**
Municipal Stormwater Program - <http://cfpub.epa.gov/npdes/stormwater/munic.cfm>