

**CITY OF MOODY**

**2016-2017**

**ANNUAL STORM WATER REPORT**

**FOR**

**ALABAMA DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

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## Certification

### City of Moody, Alabama

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Joe Lee  
Mayor  
Moody, Alabama

11-20-17

Date

## **Chapter 1 – Introduction**

### **Phase II Annual Report – 2016**

#### **1. Introduction**

The Environmental Protection Agency (EPA) created the National Pollutant Discharge Elimination System (NPDES) storm water program in order to minimize the discharge of pollutants into waters of the United States. Phase II of the NPDES storm water program extended coverage to regulated “small” MS4s in 1999. These MS4s include any that are located within an urbanized area or as designated by the NPDES permitting authority. The City of Moody received a National Pollutant Discharge Elimination System (NPDES) Phase II General Permit for storm water discharge from ADEM (ALR040049). The SWMP for Moody was prepared and submitted to ADEM, and an annual report is due by March 31. The purpose of the annual report is to show the programs and the progress made during the year to address storm water discharge in the city.

#### **2. What is the MS4 Program?**

An MS4, or Municipal Separate Storm Sewer System, is made up of drainage systems, including streets, catch basins, curbs, gutters, ditches, man-made channels, and storm pipes owned by a state, county, city, township, or other public organization. The NPDES storm water Phase II regulation requires permit coverage for storm water discharges from MS4s, particularly ones in urbanized areas. The intent of an MS4 program is to improve our nation’s surface waters by minimizing the amount of pollutants in runoff that are transported into storm water systems and ultimately to our streams, lakes, and rivers. As part of the MS4 Program, municipalities are required to have and maintain a storm water management program that meets the following requirements: (1) reduces the discharge of pollutants to the maximum extent possible, (2) protects water quality, and (3) satisfies the water quality requirements of the federal Clean Water Act ([epa.gov](http://epa.gov)).

The MS4 program is comprised of five minimum control measures (MCMs). Upon implementation, these MCMs should result in a significant reduction in the amount of pollutants discharged to receiving waters. The five minimum control measures are as follows: (1) Public Education and Involvement, (2) Illicit Discharge Detection and Elimination (IDDE), (3) Construction Site Storm Water Runoff Control, (4) Post Construction Storm Water Management, and (5) Pollution Prevention / Good Housekeeping for Municipal Operations. The annual report will summarize the action, results, and future plans for each MCM.

## **Chapter 2 – Public Education and Involvement (MCM-1)**

### **1. Permit Requirements**

Public Education and Involvement (MCM-1) requires the City to implement and evaluate a public education and involvement program, centered on the SWMP and the annual report, that distributes educational materials to the community, or that conducts equivalent outreach activities about the impacts of polluted discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the maximum extent practical.

### **2. Target Audience**

The general public, local schools, elected officials, developers, contractors, and professional groups will be targeted for MCM-1.

### **3. Current Programs (BMP):**

#### *A. Storm Water Webpage*

The Internet provides a highly accessible medium for relaying information and data to all citizens. The City of Moody's updated website will feature a new Storm Water section (currently under construction), which will include a link to the City's SWMP, MS4 information, Annual Report, and other storm water related topics. It will also provide information on any existing, as well as any future storm water related activities.

#### *B. Workshops*

In 2016, the City's Storm Water Task Force members attended a workshop on MS4 administration training. And Updated the City Website to include the required information.

#### *C. Brochures / Pamphlets*

The City uses its brochure campaign to inform and educate citizens on proper storm water pollution prevention. The brochures cover a wide range of topics, including but not limited to: Erosion and Sedimentation Control, Watershed Protection, Household Hazardous Waste Disposal, and Best Management Practices. In program year 2016, the City distributed Approximately 25 brochures and flyers.

#### *D. Training of Officials*

In 2016, the City's Storm Water Task Force members attended a workshop in Montgomery and gathered information from similar MS4 communities. The City Council was shown a training video at its regular scheduled Council Meeting November 13, 2017.

#### *E. Watershed Signage Markers*

In 2016, the City's Storm Water Task Force developed a plan/schedule for stenciling "no dumping" on its storm inlets as a means of implementing

watershed awareness. Beginning in 2017, the City plans to begin implementing the signage. The goal is to complete 20% of the planned signage per year throughout the permit cycle. Starting in 2018, the city will also begin inspecting and maintaining all installed signage on an annual basis. The mapping of the System will be established and completed during the Permit Cycle.

F. *Moody October Fest*

In 2016, the City used its annual “October Fest” as an opportunity to educate citizens on all aspects of the water cycle and other related natural resources. The audience included citizens of all ages from various communities within and outside the city. Beginning in 2017 and continuing in each year of the permit cycle, City staff will participate in the ongoing environmental education portion of October Fest. This will include the use of flyers, posters, general discussions, and answers to any questions that attendees may present.

G. *Keep Moody Green Program*

In 2016, the City mandated garbage pickup for its citizens. Citizens were permitted to dispose of any material except putrescible garbage, hazardous chemicals, and tires. In 2017, vouchers for a free landfill trip will be available at City Hall for pickup. These vouchers will allow each household in the city to dispose of trash at the local landfill one time free of charge. In years 2018-2021, the City plans to send said vouchers to each household by mail.

#### **4. Measurable Goals**

The City’s BMP to educate and involve the public were accomplished enough for the city to have a good foundation for future programs. The City engaged a consultant to update the Storm Program and adjusted its personnel responsibilities to meet the minimum requirements of the Program. The procedures have been updated and a record keeping method and location have been established.

#### **5. Future Programs**

During 2017, the City will continue with the programs that are already in place. The City will work to complete its plan to have its storm water web page updated and working. Links will be provided that will allow residents to view the City’s SWMP, Maps, and Annual Report. An inspection process and record keeping program will be established

## **3.2 – Illicit Discharge Detection and Elimination (IDDE) (MCM-2)**

### **1. Permit Requirements**

The Illicit Discharge Detection and Elimination (MCM-2) requires the City to develop, implement, enforce, and evaluate a program to detect and eliminate illicit discharges and improper disposal into the City's regulated MS4 area, including spills not under the scope of another responding authority, to the maximum extent practical.

### **2. Target Audience**

The general public, local schools, elected officials, developers, contractors, and professional groups will be targeted for MCM-2.

### **3. Current Programs**

- A. *Storm Water Infrastructure Data Organization*
- B. *Field Assessments and Site Inspections*
- C. *Hazardous Materials Response Program*
- D. *City Staff Training*

### **4. Measurable Goals**

The City has started a process of combining existing base maps and compiling a master map to use for mapping its storm water infrastructure. There is a plan in place for adding outfalls and structural BMPs, as well as a database for notes.

City staff/ Consultants began conducting field assessments of storm water observations. No site inspections were made in response to any reports of potential noncompliance, however, city crews regularly performed maintenance on and roadways, ditches, culverts, grounds, parks, and channels which are located in Right of Ways, and Public Spaces.

The City's Fire Department currently handles hazardous materials response, and the city plans to meet with them to develop and implement strategies for incorporating storm water pollution prevention practices into their hazardous materials response program.

The city is currently in the process of developing a training presentation for new hires on basic storm water issues and on IDDE.

### **5. Future Programs**

During 2017, the City will continue with the programs that are already in place. Many of the City's measurable goals have been achieved, but in 2017 the plans created in 2016 will begin to create concrete results.

### **3.3 – Construction Site Storm Water Runoff Control (MCM-3)**

#### **1. Permit Requirements**

The Construction Site Storm Water Runoff Control (MCM-3) requires the development, implementation, and enforcement of a program to reduce, to the maximum extent practicable, pollutants in any storm water runoff to the MS4 from construction activities that result in a total land disturbance of greater than or equal to one acre, as well as 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.

#### **2. Target Audience**

Developers, contractors, homebuilders, professional consultants, and city staff will be targeted for MCM-3.

#### **3. Current Programs**

##### *A. Residential Erosion and Sediment Control Ordinance*

In 2017, the City will review its existing Erosion and Sediment Control Ordinance that regulates land disturbances with the exception of agricultural operations.

In 2018, the City will make any necessary revisions to the Erosion and Sediment Control Ordinance based on its 2017 review. During the remainder of the permit cycle, years 2019-2021, the ordinance will go through an internal review, to be followed by submittal to the City Council for review. Any necessary changes will be made to the ordinance following all review.

##### *B. Erosion and Sediment Control Training*

All City Building Inspectors are required to receive annual training through ADEM's Qualified Credential Inspector program. This training gives the inspectors the knowledge needed to effectively monitor single-family residential and commercial construction sites for erosion and sediment controls and for storm water runoff concerns.

In years 2017-2021, City personnel will host or attend annual ADEM QCI training and track the training and submit this data in the annual report.

##### *C. Commercial, Industrial, and Residential Construction Site Inspections and Enforcement*

Inspections of all construction sites are an integral part of MCM-3. Prior to the start of any land disturbance on a qualified construction site, the developer must submit their ADEM construction general permit

authorization. In 2017, the city will create an inventory of all qualified construction sites within the MS4 area. Also, all qualified construction sites will be inspected not less than once per month, as well as during each phase/discipline of the construction process (structural, plumbing, electrical, etc.). By 2018, the city will create an Erosion and Sediment Control Inspection Form that will include the following: developer/owner information, current weather conditions, status of BMPs, deficiencies noted, if a re-inspection is required, and if enforcement action will be pursued. During each weekly inspection, all discharge points will be inspected and the site conditions will be compared to the approved erosion and sediment control plan. Any deficiencies will be noted and reported to the site manager and/or the developer. The developer will be given 48 hours to correct all deficiencies found during the inspection or face a stop work order until they are corrected. The construction site will not be considered complete until all areas are permanently stabilized, all construction debris is removed, and all temporary sediment and erosion control structures are removed. A final inspection will be required prior to release from the permit. Enforcement will vary based on the severity of the deficiencies found. Minor concerns will receive a written or verbal warning requiring 48 hours to comply with the ordinance. If not corrected, or in the case of major deficiencies, the City may stop work on the construction site. Stop work orders will be issued on sites with active construction while BMP deficiencies still exist. When an erosion or sediment control complaint regarding a construction site is received, immediate action will be taken by the Storm Water Task Force to inspect, document, and resolve the compliance issue, using enforcement if needed.

#### **4. Measurable Goals**

The Record keeping Procedure will be overhauled to provide clear central record keeping.

#### **5. Future Programs**

### **3.4 – Post Construction Storm Water Management (MCM-4)**

#### **1. Permit Requirements**

The Post Construction Storm Water Management (MCM-4) requires the City to develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb one acre or greater by ensuring that controls are in place that prevent or minimize water quality impacts. It also requires the City to develop and implement strategies that include a combination of structural and/or non-structural BMPs that are appropriate for the community, an ordinance or other regulatory mechanism to address post-construction runoff from



new development and redevelopment projects to the extent allowable under State or local law, and adequate long-term operation and maintenance of BMPs.

## **2. Target Audience**

Developers, contractors, and the property owner's association will be targeted for MCM-4.

## **3. Current Programs**

### *A. BMP Long-Term Monitoring and Maintenance*

The goal of this element is to periodically review and assess the performance of the post-construction BMPs installed with new and redevelopment projects. Field inspections verifying the adequate construction of the BMPs, in accordance with the approved improvement plan, will be performed along with permit cycle inspections. The field inspections will include an evaluation of the BMPs detailing how well the BMP has been maintained since construction. Performance and potential improvements will be noted. If possible, the BMPs will be viewed while functioning during a rainfall event. Information gathered with this element will be used to revise acceptable BMPs and processes.

In 2017, the City will update design review guidance for plan reviewers. In years 2018-2021, the City will review a minimum of 20% of post-construction BMPs annually, evaluate performance and design, and conduct enforcement as required to ensure compliance.

### *B. Low Impact Development / Green Infrastructure Design*

Low-impact development (LID) is a term used to describe a land planning and engineering design approach to managing storm water runoff. LID emphasizes conservation and use of on-site natural features to protect water quality and implements engineered small-scale hydrologic controls to replicate the predevelopment regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

Subdivision regulations and a zoning ordinance require designers to provide engineering storm plans for residential and commercial projects to provide no adverse effects. Requirements will include BMPs with a 2-year, 24-hour minimum storm design, as well as a target post-development storm water runoff with no increase in volumetric flow.

Green infrastructure is a concept that highlights the importance of the natural environment in decisions about land use planning. In particular, there is an emphasis on the "life support" functions provided by a network of natural ecosystems through interconnectivity to support long-term

sustainability. EPA has extended the concept to apply to the management of storm water runoff at the local level through the use of natural systems, or engineered systems that mimic natural systems, to treat polluted runoff.

In 2018, the Storm Water Task Force will create a LID / Engineering Design guidance memo to be added to the sub-regulations to aid in the development of a Low-Impact Development / Green Infrastructure Design. A copy of this memo will be readily available at the City Hall, and it will be distributed to designers and developers of all potential sites within the jurisdiction.

C. *Development Community Education Outreach*

Education and outreach is required to ensure that the development community is informed about the program and the correct design standards to minimize pollutants discharged in storm water runoff. Outreach activities will include the distribution of existing and new education materials in conjunction with the Public Education and Involvement MCM and the sponsorship of workshops targeted to the development community.

In years 2017-2021, the City will run educational videos and fliers on digital bulletin boards at the City Hall and the Civic Center at regular intervals. These will also direct the community to visit the city's storm water webpage for education regarding contractors and the general public.

### **3.5 – Pollution Prevention / Good Housekeeping for Municipal Operations (MCM-5)**

#### **1. Permit Requirements**

Pollution Prevention / Good Housekeeping for Municipal Operations (MCM-5) requires that the City develop and implement a program for pollution prevention and good housekeeping at municipal operations. It also requires the development and implementation of an employee training program designed to prevent and reduce, to the maximum extent practicable, storm water pollutants in areas such as new construction and land disturbances, parks maintenance, storm water system maintenance, fleet and building maintenance, and all other applicable municipal operations.

#### **2. Target Audience**

The general public, local schools, elected officials, city employees, developers, contractors, and professional groups will be targeted for MCM-5.

#### **3. Current Programs**

##### *A. Good Housekeeping*

##### **1. Annual Inventory of Facilities:**

In 2017 and 2018, the City will take inventory of all City-owned facilities, including but not limited to City Hall, the Police Station, the Civic Center, the Public Works building, and city parks. They will also conduct a baseline assessment for the reduction of pollutants from storm water runoff. This inventory will also include buildings, vacant property, parking areas, and ancillary storage areas. It will also include the drainage area that each facility impacts and all potential pollutants. Inventories will be taken annually for all inspected facilities.

##### **2. Assessment of Facilities:**

All facilities inventoried in 2017 and 2018 will have a complete assessment done by 2019. These assessments will include an inspection of all areas. All deficiencies will be identified and reported to the appropriate supervisor for remediation.

##### **3. SWMP Standard Operating Procedures (SOP) for Facilities:**

Following the assessment, the City will develop standard operating procedures (SOPs) for each facility in regards to storm water runoff and housekeeping practices. The goal is for the City to inspect and inventory 20% of the facilities per permit year.

B. *Pollution Prevention*

4. Storm Water System Maintenance Programs

The storm water management system for the City contains grassed and concrete swales, culverts, inlets, and pipes. These areas will be maintained on an as-needed basis by determination of the Storm Water Task Force. Areas are also maintained when valid complaints of drainage problems are filed with the City.

In 2017, the Storm Water Task Force and the Inspection and Public Works Department will meet to discuss a plan of action for storm water management system maintenance. By 2018, a plan will be developed for consistent efforts in managing storm water systems, including a standard "Inspection Request Form" and a standard "Inspection Checklist". By 2019, the plan will be implemented with a tracking mechanism. By 2021, the goal is to show the quantities of pollutants removed from the system and the frequency of all areas maintained. Major areas of storm water management system maintenance will be tracked through capital storm water projects.

5. Litter Patrol

The City will operate and maintain its streets and right-of-ways in such a manner as to minimize the discharge of pollutants. The Inspection and Public Works Department will use a litter collection program in order to keep it to a minimum. Additionally, designated crews with the St. Clair County Correctional Department will pick up trash from the City's right-of-ways twice per year as a part of their required community service. Any severe right-of-way erosion noted during the mowing process will be repaired in a timely manner. Grassed ditches will serve as storm water filters during rain events. In years 2018-2021, the City plans to track the areas patrolled by the amount of litter collected.

6. Capital Storm Water Projects

In 2017, and in each budget year that follows, the City will determine a list of capital projects to be completed. The City Council is the lead in this effort. These projects will include a tremendous amount of funding, as well as hiring an outside engineering firm and a general contractor. Upon approval, these projects will be included in the budget for the following year. Some of these projects may be emergency repairs due to natural

causes/disasters. Emergency projects will be completed as soon as practicable for the safety of the public.

In years 2018-2021, all capital storm water projects will be monitored for compliance with the city's erosion and sediment control ordinance. Inspections of these projects will be conducted, as will be the case for all qualified construction sites, and any deficiencies discovered will require immediate attention and compliance.

C. *Annual Training*

Training is essential for all City employees regarding pollution prevention and good housekeeping. Previously mentioned MCMs (1-4) detail specific training programs that are to be developed and implemented. The City will also annually host or attend a training program for the purpose of educating employees regarding storm water runoff and pollution prevention. This training will be a part of other MCM training as well.

The City will host or attend a general storm water training session per year for new employees involved in the program. Also, the City will annually provide specific training in regards to facility SOPs for all employees with any program responsibilities.

## **Chapter 4 – Water Quality Monitoring Plan**

### **A. Records of Monitoring Information:**

- The date(s), precise location(s), and time(s) of sampling measurements / analysis
- The name of the individual(s) who performed the sampling measurements / analysis
- The sampling measurement / analytical techniques or methods used
- The results of such sampling measurements / analyses

### **B. Target Pollutants:**

- Sediment and TSS will be the targeted pollutants for the City's Water Quality Monitoring Program.

## **Chapter 5 – Record Keeping and Reporting**

The State of Alabama's general permit requires the submission of an annual report. Reports are due on March 31<sup>st</sup> of each year during the first five-year permit term. The governing body, or an official designated by the governing board, must certify these reports. At a minimum, the annual reports will contain the following information:

- Statuses of compliance with permit conditions
- An assessment of the appropriateness and effectiveness of the identified BMPs
- Status of the identified measurable goals of reducing the discharge of pollutants and protecting water quality
- Results of the information collected and analyzed, including monitoring data, if any, during the reporting period
- A summary of the storm water activities that the permittee plans to undertake during the next reporting cycle
- An assessment of the appropriateness and effectiveness of the identified BMPs
- Any proposed change(s) to the SWMP, along with a justification of why the change(s) are necessary, and a change in the person or persons implementing and coordinating the SWMP

The Storm Water Task Force is responsible for assembling information from the various city departments to author the annual reports. Forms for use in recordkeeping by involved departments will be developed to facilitate the collection of the information required for the annual reports.

The City will keep records required by the permit for at least five years, or for the duration of the permit. The records used to document compliance with SWMP will be available to the public during regular business hours from the various implementing departments. The SWMP and related documents may be viewed in the Moody City Hall at 670 Park Avenue, Moody, AL 35004.