

**NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM**

**PHASE II
MUNICIPAL SEPARATE STORM SEWER
SYSTEM PERMIT**

CITY OF MOODY, ALABAMA

STORM WATER MANAGEMENT PLAN

PERMIT NUMBER ALR040049

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

1.1 – Regulatory Background

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 I of this program was created in 1990 for municipal separate storm sewer systems (MS4s), and it focused on operators of “medium” and “large” MS4s. Phase I required operators of these systems, which generally serve populations of 100,000 or more, to implement a storm water management program as a way to control polluted discharges into the MS4s from municipal, industrial, and construction activities. 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. For the state of Alabama, permitting and enforcement of the storm water program falls under the jurisdiction of the Alabama Department of Environmental Management (ADEM). In 2011, ADEM created NPDES Permit Number ALR 040000, which serves as a General Permit for MS4 Phase II that covers storm water discharges associated with “small” MS4s that discharge water to waters of the State.

1.2 – Regulated Area Overview

The City of Moody is located in St. Clair County, east of Birmingham and west of Pell City. Officially incorporated in 1962, the City retains the legal authority to create land use and design regulations for any development within its city limits. The City of Moody believes in government that promotes residential and responsible commercial growth, while maintaining the integrity and the quality of local and state water systems. The primary receiving water for this area is the Cahaba River.

1.3 – SWMP Overview

This document presents the City of Moody’s Storm Water Management Program (SWMP), per ADEM’s NPDES Phase II MS4 Permit requirements, covering storm water discharges from regulated small municipalities. This program was developed, implemented, and enforced in order to reduce the discharge of pollutants from the municipal storm drain system to the maximum extent practicable. In order to achieve this goal, Moody uses full implementation of BMPs, including all known, available, and reasonable methods of prevention, control, and treatment to control and prevent storm water pollution from entering waters of the State of Alabama.

Chapter 2 – SWMP Program Management

2.1 – SWMP Responsibilities

Although the Mayor’s Office will be responsible for the implementation of the SWMP, with help from the Storm Water Task Force, no single City department is responsible for all necessary program management activities. The multiple departments and agencies involved are anticipated to be:

- Mayor’s Office
- City Council
- Storm Water Task Force
- Inspection and Public Works
- Fire and Rescue Department

The relationships between the departments and their corresponding responsibilities will be assigned by the Mayor’s Office, with help from the Storm Water Task Force, and are dependent upon the solidification of the following discussion during program development.

A. Mayor’s Office

The Office of the Mayor is responsible for the implementation and the oversight of the program as a whole, as well as communication with the City Council.

B. City Council

The City Council is responsible for the approval of budgetary expenditures, as well as all City ordinances and resolutions related to the implementation of the SWMP.

C. Storm Water Task Force

The Storm Water Task Force will assist the Mayor’s Office in leading the administration of the program, as well as the day-to-day activities, with assistance and input from other departments. The Task Force will take the lead in assuring that MS4 inspection and enforcement occurs citywide, as well as the creation of a storm water webpage. It will also assist with flood plain management, construction site runoff control, post-construction storm water management, illicit discharge detection and elimination, and training within the good housekeeping for municipal operations category of minimum control measures (MCMs).

D. Inspection and Public Works

The Inspection and Public Works Department will be responsible for City owned and maintained grounds and landscaping, and it will be largely responsible for the Pollution Prevention/Good Housekeeping for Municipal Operations MCM. They will also serve a role in other MCMs, including Illicit Discharge Detection and Elimination, as well as Public Education.

E. Fire and Rescue Department

The Fire and Rescue Department will provide a support role through hazardous waste spill reporting and cleaning techniques. Other responsibilities this department has include Good Housekeeping, Pollution Prevention, Illicit Discharge Detection and Elimination, and Public Education.

2.2 – SWMP Coordination

The City of Moody anticipates sharing some efforts with local MS4s concerning the implementation of Minimum Control Measures (MCM), such as Public Education and Involvement. This coordination will allow for cost-effective implementation of certain MCMs in the program, as well as participation in statewide organizations with other MS4 operators, and it is to occur on a strictly voluntary basis.

2.3 – SWMP Updates and Revisions

The Storm Water Task Force, in preparation for the annual report, will review the Storm Water Management Program each year. If changes are needed, the SWMP may be updated following the procedures laid out in Part IV.B.2 of the NPDES General Permit. Changes to the SWMP adding components, controls, or requirements may be made at any time, provided that ADEM is notified in writing. The changes must also be documented in the annual report. Permission to make changes to the SWMP to remove or replace components, controls, or requirements must be requested from ADEM a minimum of 60 days prior to making the change.

Chapter 3 – Minimum Control Measures (MCM) Criteria

This chapter provides guidance for meeting the requirements of the ADEM general permit involving storm water discharge from the MS4. There are five (5) minimum control measures (MCMs), and they are listed as follows: Public Education and Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post Construction Storm Water Management, and Pollution Prevention/Good Housekeeping for Municipal Operations. Each of these five MCMs will be discussed in the following sections, along with the City's plan for implementation for each.

3.1 – Public Education and Involvement (MCM-1)

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. The ongoing activities for public education and involvement may include committees, stewardship programs, watershed associations, advisory councils, and other environmental related activities. Upon approval, the SWMP will be available to the public on the City's web page. The development of this program will be documented throughout the process, and the Storm Water Task Force will give a regular report to the City Council. Any public comments will be received by the Task Force and reviewed.

MCM-1 will include various target audiences. Residential, commercial, and industrial developers will be involved in the SMWP development. The general public, local schools, elected officials, developers, contractors, and professional groups will be targeted for ongoing involvement in the SWMP implementation and evaluation. Federal, state, and other local agencies will be included in these processes as well. Educational materials will be specifically tailored to communicate a specific storm water pollution concern to a targeted audience.

MCM-1 will target non-point source pollutants found in storm water. These pollutants include, but are not limited to, trash, pesticides, fertilizers, sediment, pathogens, oils, and grease. The targeted sources include, but are not limited to, pool water disposal, illegal dumping, car washing, home auto repair, illicit discharges, failing septic systems, construction site erosion, other impacts from development, commercial parking lot runoff, and the improper application of pesticides, fertilizers, and herbicides. Target sediment sources may include residential developments, construction site erosion, commercial developments, and erosion due to all-terrain vehicle trespassing.

The City of Moody plans to employ a variety of strategies for MCM-1, including the involvement with existing groups and the utilization of existing materials from other agencies and permittees, as well as a focus on public participation as a whole. The creation of new materials to educate the targeted audiences is also planned. A few of the City's future compliance activities include, but are not limited to, brochures, pamphlets, workshops, school presentations, curbside recycling, elected officials training, storm water webpage, and watershed signage. Each outreach strategy will be detailed below along with its goal, timeline, and responsible department, for implementation of the measure.

A. Storm Water Webpage

Potential Target Audience: General Public

Current Program:

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.

Responsible Department: Storm Water Task Force

B. Workshops

Potential Target Audience: Homeowners, Elected Officials, Contractors, Developers, and Professionals

Current Program:

Workshops are a useful educational tool for specific topic issues. Using existing training programs, the City plans to coordinate with its partners to host or attend workshops in a variety of storm water topics for homeowners, professionals, and city officials.

Measurable Goals:

In 2017, the City Council will create a list of potential storm water workshop topics for the city to host or attend. The City will use this list as a guide in choosing one workshop per year to host or attend.

Responsible Department: Mayor's Office

C. Brochures / Pamphlets

Potential Target Audience: General Public, Home Owners, Schools, Elected Officials, Contractors, and Developers

Current Program:

This element of MCM-1 will allow for the distribution of new and existing storm water education brochures and pamphlets for certain targeted groups. These include erosion and sediment control brochures for contractors working in the City of Moody, flyers targeting residential activities to homeowners, flyers for presentations given to schools, and flyers handed out at the City's October Fest.

Measurable Goals:

In 2018, the City plans to compile a list of existing EPA, ADEM, and other storm water educational brochures and pamphlets that can be used to implement this element of the MCM-1. Also, with guidance from the EAC, distribution locations will be determined, and the brochures/pamphlets will be placed at the desired locations for distribution. In 2019, erosion and sediment control brochures detailing effective BMPs to reduce sediment impacts to storm water will be distributed to all residential homebuilders licensed in the City along with the application form for a building permit. In years 2020-2021, the City will create one additional storm water brochure per year, each with a specific target audience.

Responsible Department: Mayor's Office / Inspection and Public Works

D. Training of Elected Officials

Potential Target Audience: Elected Officials

Current Program:

Expanding the storm water management knowledge of elected officials is key to improving the program due to the fact that they are responsible for passing regulations and ordinances that guide the implementation of the City's Storm Water Management Plan, as well as for the budgetary control of the plan.

Measurable Goals:

The City's elected officials will host or attend at least one educational program video workshop during each year of the permit cycle.

Responsible Department: Mayor's Office

E. Watershed Signage Markers

Potential Target Audience: General Public

Current Program:

Watersheds are a logical way to think about the connection between the land and the local quality of water. How we, as a community, treat the land has a direct impact on the quality of the water that we rely upon for many important public uses, such as swimming, fishing, and drinking. Watershed signage is a great way to increase the public's awareness about the importance of their environment and to encourage good stewardship of our valuable streams, wetlands, lakes, and ground water.

Measurable Goals:

Beginning in 2017, the City plans to begin implementing watershed awareness signage. This will include stenciling the City's MS4 inlets with a "No Dumping" message, as well as requiring new subdivisions to use the "Stamped" inlet covers. 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.

Responsible Department: Inspection and Public Works Department

F. Moody October Fest

Current Program:

The City of Moody's October Fest will be used as an opportunity to educate citizens on all aspects of the water cycle and other related natural resources. This effort also instills in the children a general environmental awareness and stewardship, as well as specific fresh water issues and protection strategies. October Fest will include citizens of all ages from various communities within and outside the city.

Measurable Goals:

Beginning in 2017 and continuing in each year of the permit cycle, City staff will participate in the 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.

Responsible Department: City Council

G. Keep Moody Green Program

Current Program:

The City mandates garbage pickup for its citizens. Citizens are permitted to dispose of any material except putrescible garbage, hazardous chemicals, and tires.

Measurable Goals:

Beginning in 2017 and continuing annually throughout the duration of the permit cycle and beyond, City staff will participate in and/or assist with at least one cleanup day per year. 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.

Responsible Department: City Council / Mayor's Office

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

The EPA defines illicit discharges into a storm drain system as “any discharge to a MS4 that is not composed entirely of storm water.” Some exceptions include permitted industrial sources and discharges from firefighting activities. Examples of illicit discharges include, but are not limited to: sanitary wastewater, laundry, residue from a car wash, trash, oil, etc. These discharges can enter a storm drain system indirectly by cracks in pipes, spills, and dumped materials, or they can enter directly through a direct connection. As a result, untreated waste containing high levels of pollutants can enter storm water systems and eventually into state waters.

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. The program is required to include the following actions:

- A. An annual update to the storm water infrastructure inventory database is required, including the location of all outfalls and the names and locations of all waters of the State that receive discharges from those outfalls, as well as structural BMPs that are owned, operated, and maintained within the boundaries of the City’s MS4 area. Another requirement is to effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 to the extent allowable under State or local law, and to implement appropriate enforcement procedures and actions. The ordinance is to be reviewed on an annual basis and to be updated when necessary.
- B. The City is also required to develop and implement a plan to detect and address non-storm water discharges to the system, including illegal dumping, that are not authorized by a separate NPDES permit, as well as to inform public employees, businesses, and the general public of the hazards that are generally associated with illegal discharges and improper disposal of waste.

In the execution of controlling illicit discharges and improper disposal of wastes into storm water, the City of Moody will exclude the following categories of non-storm water discharges, which are not required to be addressed by the State: landscape irrigation, rising ground watersheds, uncontaminated pumped groundwater, uncontaminated groundwater infiltration, diverted stream flows, water line flushing, foundation drains, irrigation watersheds, water from crawl space pumps, springs, air conditioning condensation, discharges from portable water sources, lawn watering, flows from riparian habitats and wetlands, fire fighting flows, de-chlorinated swimming pool discharges, individual residential car washing, and footing drains.

MCM-2 target audiences will include residential, commercial and industrial developers who will be involved in the development of the SMWP. Also, the general public, local schools, elected officials, developers, contractors, and other professional groups will be targeted for ongoing involvement, implementation, and evaluation of the SWMP. Federal, state, and other local agencies will be included in these processes as well.

MCM-2 will target non-point source pollutants found in storm water, such as sediment, pesticides, fertilizers, paints, swimming pool discharges, pathogens, oils, and grease. The sources targeted for these pollutants include, but are not limited to: illegal dumping, illicit swimming pool connections, failing septic systems, illicit septic system connections, unpermitted construction site discharges, and the improper disposal of pesticides, fertilizers, herbicides, paints, etc.

The City of Moody plans to employ a variety of strategies for MCM-2, including the formation and enforcement of city ordinances, as well as educational outreach. It is the City of Moody's goal to reduce illicit discharge to its MS4 to the maximum extent practical for the implementation of this measure. Each strategy will be detailed below, along with its goal, a timeline, and the department responsible for implementing the measure.

A. Storm Water Infrastructure Data Organization

Current Program:

This element of MCM-2 will involve city staff locating all existing storm water infrastructure data and using it to create a database that includes all outfalls that discharge into state waters and all structural BMPs that are owned, operated, and maintained in the boundaries of the City's MS4 area.

Measurable Goals:

In years 2017-2021, the City plans to update and combine maps of all existing storm water outfalls and structural BMPs at a rate of 20% per year. The City will also initiate the creation of a storm water outfall maintenance database that will include the location, description, and condition of each existing outfall. Each outfall in the database will also include a layer for inspections and notes. This database would also allow for the addition of any new outfalls, submitted in As-Built form, to the City of Moody. It is Moody's goal to complete this maintenance database before the end of the permit cycle in 2021.

Responsible Department: Storm Water Task Force

B. Field Assessments and Site Inspections

Current Program:

Field assessments will include any storm water observations made during the normal duties of City staff. Site inspections will include field visits made, aside from an employee's normal duties, in response to any reports of potential noncompliance or as a result of program directives. A standard operating procedure (SOP) will be established for each of the designated field personnel to report non-storm water discharges that are potentially in violation. This process will include reporting any potential violations to the appropriate City staff. Designated City personnel will be trained in water quality inspection procedures, internal processes, and general storm water quality practices. City staff will also routinely inspect storm water infrastructure and respond to any notification of potential illicit discharges from the public and from other agencies. To reduce the amount of pollutants in runoff, City crews will regularly perform maintenance on and cleaning of roadways, ditches, culverts, grounds, parks, and channels. These practices will be described and recognized in all appropriate sections of the program.

Measurable Goals:

In 2017, the City will designate responsible personnel for field assessments and site inspections and develop procedures for the implementation of reporting/inspecting and enforcement. In years 2018-2020, the City will educate the general public, as well as commercial and industrial developers, on the hazards associated with illicit discharges. They will also initiate basic field assessments in order to establish priority areas for the more in-depth inspections, conduct a minimum of ten (10) in-depth inspections, and respond to all identified and reported potentially illicit discharges and connections, per established procedures and guidelines. In 2021, the City will collect and review data regarding enforcement activities as part of the annual report in order to identify the principle pollutants and to plan for future action.

Responsible Department: Inspection and Public Works Department

C. Hazardous Materials Response Program

Current Program:

The storm water program will be coordinated with the hazardous materials response program operated by the City's Fire Department. The Inspection and Public Works Department, along with other entities that coordinate with the hazardous materials response program, will assist in this effort.

Measurable Goals:

In 2017, the City will meet with the Fire Department to develop and implement strategies for incorporating storm water pollution prevention practices into their hazardous materials response program. They will also monitor the location, frequency, and type of response events. In years 2018-2021, the City will establish a section on their Storm Water Webpage for public inquiries and reports regarding hazardous materials, and they will advertise IDDE information on the website, in educational brochures/flyers, and through local media. They will also receive, respond to, and report appropriately on all events or inquiries fielded from the public.

Responsible Department: Fire and Rescue Department

D. City Staff Training

Current Program:

The goal of this element is to ensure that City staff understand storm water issues and are appropriately trained to recognize and to report on illicit discharges and connections while performing their normal duties in the field. Training will be provided to hazardous materials response teams, inspection and public works, and all other necessary employees. These training sessions may be offered in conjunction with other training elements of the program.

Measurable Goals:

In 2017, the City plans to develop a training presentation for new hires on basic storm water issues and on IDDE. In years 2018-2021, the City will host or attend one general storm water training session annually for new employees involved in the program, as well as host or attend specific training annually for all employees with program responsibility, such as the Fire and Rescue Department and the Inspection and Public Works Department.

Responsible Department: Mayor's Office

E. Evaluation

The evaluation of an MCM-2 program is best measured by the goals that are met. At the end of each permit year, the City will evaluate the overall effectiveness of MCM-2 through assessment of the success of the goals that were set and achieved.

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

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. The sites are termed as qualified construction sites by ADEM.

MCM-3 will target developers, contractors, homebuilders, and professional consultants. It will also include the training of City staff. Federal, state, and local agencies will also be included through coordinated efforts within the program.

MCM-3 will mainly target construction sites for sediment and erosion control. Other potentially targeted pollutant sources are petroleum, oils and greases from equipment storage areas, pH changes through concrete washouts, and pathogens from the lack of portable facilities.

The City of Moody plans to use a variety of strategies for MCM-3, including the implementation and enforcement of city ordinances that deal specifically with sediment and erosion control, as well as the training of City staff. The City will rely on ADEM standards for appropriate erosion and sediment controls for all qualified construction sites. Coordination with ADEM concerning compliance issues will also be a major focus for the City. Each strategy will be detailed below, along with its goal, a timeline, and the responsible department for the implementation of this measure.

A. Residential Erosion and Sediment Control Ordinance

Current Program:

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

Measurable Goals:

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.

Responsible Department: City Council

B. Erosion and Sediment Control Training

Current Program:

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.

Measurable Goals:

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

Responsible Department: Inspection and Public Works Department

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

Current Program:

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.

Measurable Goals:

By 2018, several aspects of the city's site inspections and enforcement program will be enhanced by the Storm Water Task Force in order to maintain compliance with the new general permit. The City will also pursue the revision of its Erosion and Sediment Control Ordinance to add the possibility of a Municipal Ordinance Ticket to the enforcement process. Site inspections will be prioritized based on status of construction, site conditions, location and size of the site, and proximity of the site to sensitive areas such as streams and wetlands. Priority construction sites will include qualified construction sites that discharge to impaired waters listed for sediment or Outstanding Alabama Water. Priority construction sites will receive precedence in inspections. In 2019 and 2020, the City's goal is to enhance the database used to track all inspections and timelines for site compliance. In 2021, the City will determine the overall effectiveness of the program and modify as needed for permit compliance.

Responsible Department: Storm Water Task Force

D. Evaluation

The evaluation of the program will include the level of achievement of the program's goals. Also, throughout the permit term, the effectiveness of the program will reveal itself based on construction site compliance. The results of the program will be evaluated annually and documented in the annual report.

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

The City will employ a variety of strategies for MCM-4, including education outreach and the creation and enforcement of new and existing ordinances. The City's goal is to minimize water quality impacts from new development and redevelopment sites. 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.

For MCM-4, the City of Moody will target developers, contractors, and the property owners association.

MCM-4 will target non-point source pollutants found in storm water, such as sediment, pesticides, fertilizers, paints, swimming pool discharges, pathogens, oils, and grease. The sources targeted for these pollutants include, but are not limited to, illegal dumping, illicit swimming pool connections, failing septic systems, illicit septic system connections, unpermitted construction site discharges, and the improper disposal of pesticides, fertilizers, herbicides, paints, etc.

It is the City of Moody's goal to reduce illicit discharge to its MS4 to the maximum extent practicable for the implementation of this measure. Each strategy will be detailed below, along with its goal, a timeline, and the department responsible for implementing the measure.

A. BMP Long-Term Monitoring and Maintenance

Current Program:

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.

Measurable Goals:

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.

Responsible Department: Inspection and Public Works

B. Low Impact Development / Green Infrastructure Design

Current Program:

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.

Measurable Goals:

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.

Responsible Department: Storm Water Task Force

C. Development Community Education Outreach

Current Program:

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.

Measurable Goals:

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.

Responsible Department: Mayor's Office

D. Evaluation

The evaluation of an MCM-4 program is best measured by the goals that are met. At the end of the permit year, the City will evaluate the overall effectiveness of MCM-4 through assessment of the success of the goals that were set and achieved.

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

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.

Other program requirements include the outlining of procedures for the proper disposal of waste removed from the MS4 and municipal operations, including, but not limited to materials such as accumulated sediments, dredge spoil, floatables, and other debris. There will also be procedures outlined in order to ensure that any new flood management projects are assessed for impacts on water quality. Existing projects shall be assessed for incorporation of additional water quality protection devices and practices.

MCM-5 will target all non-point source storm water pollutants. These include, but are not limited to, trash, sediment, pesticides, fertilizers, pathogens, oils, and grease. The targeted sources involved will be publicly owned properties and right-of-ways, as well as municipal facilities and operations.

The City of Moody will use a variety of strategies for MCM-5, but will separate its overall plan into two major categories: Good Housekeeping and Pollution Prevention. These will be discussed in detail in the following paragraphs.

A. Good Housekeeping

Good Housekeeping involves measures that involve City-owned facilities. This section includes the following measures for compliance with the permit requirements:

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.

Responsible Departments: Storm Water Task Force

B. Pollution Prevention

Pollution prevention includes measures that involve right-of-ways, including bridges, storm water management systems, and roadways. This section includes the following measures for compliance with the permit requirements:

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.

Responsible Departments: Inspection and Public Works / City Council

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.

D. **Evaluation**

The evaluation of the program will include the level of achievement of the program's goals. Also during the permit term, the effectiveness of the program will reveal itself based on construction site compliance. The results of the program will be evaluated annually.

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 31st 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.