

# **City of Leeds**

## **Storm Water Management Plan**

# **2014**

## **Certification**

### **City of Leeds, 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.

Brad Watson, Building/Zoning Official

City of Leeds, Alabama

ATTEST:

## **Chapter 1 – Introduction**

### **1-1 Program Overview**

This document presents the City of Leeds' Storm water Management Program (SWMP) as required by the Alabama Department of Environmental Management's (ADEM) National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) Permit. This permit covers storm water discharges from regulated small municipalities. The overall goal of the program is to protect water quality by an effort to reduce to the maximum extent practicable the discharge of pollutants in storm water

### **1-2 Regulatory Background**

In 1990, the Environmental Protection Agency (EPA) promulgated regulations establishing Phase 1 of the NPDES storm water program. The Phase I program for municipal separate storm sewer systems (MS4s) requires operators of “medium” and “large” MS4s that generally serve populations of 100,000 or greater to implement a storm water management program as a means to control polluted discharges from certain municipal, industrial and construction activities into the MS4.

In 1999, EPA promulgated regulations establishing Phase II of the NPDES storm program. The Phase II program extends coverage of the NPDES storm water program to regulated “small” MS4s. A regulated small MS4 is located within an “urbanized area” as defined by the Census Bureau or as designated by the NPDES permitting authority. The ADEM presently has primary jurisdiction over permitting and enforcement of the storm water program for Alabama. On January 31, 2011, ADEM issued MS4 Phase II General Permit (NPDES Permit Number ALR 040000) for storm water discharges associated with small MS4s.

### **1-3 Regulated Area**

The Phase II MS4 general permit applies to operators of regulated small MS4s that discharge storm water to waters of the State. The City of Leeds is located in Jefferson, Shelby and St. Clair Counties West of Pell City and East of Birmingham.

### **1-4 Legal Authority**

The City of Leeds was officially incorporated in 1887. As an incorporated city Leeds has the legal authority to create land use and design regulations for developments within the City and its corporate limits.

### **1-5 Water Quality Concerns**

The City of Leeds primary receiving water is the Cahaba and Little Cahaba Rivers

#### **A. Discharge Compliance with Water Quality Standards**

This general permit requires, at a minimum, that permittees develop, implement and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable. Full implementation of BMPs, using all known, available, and reasonable methods of

prevention, control and treatment to prevent and control storm water pollution from entering waters of the State of Alabama is considered an acceptable effort to reduce pollutants from the municipal storm drain system to the maximum extent practicable.

## **Chapter 2 – SWMP Program Management**

### **2-1 SWMP Plan Implementation Responsibilities**

Although the Building Official is the lead implementer of the SWMP, no single department within the City is responsible for all of the necessary activities. Therefore, multiple departments and agencies have a role in program management. They are anticipated to be:

- City of Leeds, City Council
- City of Leeds, Mayor's Office
- City of Leeds Building Department
- Environmental Programs
- Flood Plain Management's
- City of Leeds Public Works Department/Recreation & Parks
- City of Leeds Fire Department
- Leeds Water Works
- Jefferson County Department of Environmental Services

The relationships between the departments and the following discussion are dependent upon the solidification of each department's responsibilities during program development.

#### **A. City of Leeds City Council**

The City Council is responsible for the promulgation of all City resolutions and ordinances and the approval of budgetary expenditures related to the implementation of the Storm Water Management Program.

#### **B. Mayor's Office**

The Office of the Mayor is responsible for overall oversight of the program, and for maintaining communication with the City Council.

#### **C. Building Department-Environmental Programs-Flood Plain Management**

The Building Department will lead the day-to-day activities and administration of the program, with substantial assistance and input from other departments as depicted in this Plan. The Building Official will take the lead in assuring that MS4 training occurs Citywide. The Building Department will assist with flood plain management, illicit discharge detection and elimination, construction site runoff control, post-construction storm water management, and training within the good housekeeping for municipal operation's MCM.

#### **D. Public Works/Recreation & Parks**

Public Works Department will have a role in several of the Minimum Control Measures (MCM's), including public education, illicit discharge detection and elimination. In addition, the Public Works Department is responsible for City owned and maintained grounds and landscaping and will be largely responsible for the Pollution Prevention/Good Housekeeping for Municipal Operations MCM.

#### **E. Fire Department**

The Fire Department provides a support role through hazardous waste spill reporting and cleaning techniques. The responsibilities include public education, illicit discharge detection and elimination and pollution prevention and good housekeeping.

#### **F. Water and Sewer Department**

Water and Sewer Department will assist in the development and educational part of the Permit. The department will also assist in sampling and analysis of the storm water.

### **2-2 Coordination between Local MS4s**

The City does anticipate sharing some of the efforts in implementing various Minimum Control Measures (MCM) of the permit such as Education Outreach and Public Participation. This coordination will be on a voluntary basis only and allow for cost effective implementation of certain program MCMs.

### **2-3 SWMP Revisions and Updates**

As part of the annual review of the SWMP in conjunction with the preparation of the annual report, all revisions and updates that are required by ADEM or necessary to maintain permit compliance will be submitted to the Department for review. Upon approval of the revisions and updates, the modified SWMP plan will become effective.

## **Chapter 3 – Program Elements**

This chapter provides guidance to staff and others to meet the requirements of the ADEM general permit for storm water discharges from the MS4.

The six minimum control measures (MCM) are:

1. Public Education and Outreach

2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Storm water Management's
6. Pollution Prevention/Good Housekeeping for Municipal Operations

The following sections in this chapter will detail the MCM with the following criteria for each MCM:

Permit Requirements

Target Audiences

Target Pollutant Sources

Outreach Strategies

Goals and Timelines

Evaluation Techniques

### **Public Education and Outreach (MCM 1)**

#### **Permit Requirement**

The Public Education and Outreach (MCM 1) requires the City to implement and evaluate a public education and outreach program that distributes educational materials to the community or 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.

#### **Target Audiences**

MCM 1 includes various target audiences. Residential, commercial and industrial developers have been involved in the SMWP development. The general public, 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 pollutant concern to a targeted audience.

#### **Target Pollutants and Sources**

MCM 1 will target non point source pollutants found in storm water. These pollutants include, but are not limited to, sediment, trash, fertilizers, pesticides, pathogens and oils and greases. The sources that are targeted include, but are not limited to, illegal dumping, pool water disposal, car washing, home auto repair, failing septic systems, illicit discharges, impacts from development, construction site

erosion, commercial parking lot runoff and improper application of fertilizers, pesticides, and herbicides.

Some of the target sediment sources may include:

Residential developments

Commercial developments

All-terrain trespass erosion

Construction site erosion

### **Outreach Strategies, Goals and Timelines**

The City employs a variety of strategies for MCM 1 from the utilization of existing materials from other agencies and permittees to the creation of new materials to educate the targeted audiences. Some of the City's current and future compliance activities include:

Brochures, pamphlets, Environmental Webpage, Workshops, School Presentations, Curbside Recycling, Watershed Signage & Environmental Awareness Signage, and Elected Officials Training. These strategies will present best management practices that are effective in reducing the impacts of pollutants on storm water runoff. Each outreach strategy will be detailed below along with its goal, timeline and department responsible for implementation of the measure.

#### **A. Create Storm water Education Outreach Brochures – Pamphlets:**

##### **Current Program:**

This element of MCM (1) will allow for the distribution of new and existing storm water education brochures and pamphlets for targeted groups, such as:

Erosion and sediment control brochures for contractors working in the City, flyers for presentations given to schoolchildren, flyers targeting residential activities to homeowners.

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

##### **Measurable Goals:**

In year one, the City will compile a list of existing EPA and other storm water educational brochures and pamphlets that can be used to implement this element of the MCM 1. Also, with the guidance from the EAC, distribution locations will be determined and the brochure/pamphlets will be placed at the desired locations for distribution.

In year two, erosion and sediment control brochures detailing effective BMPs to reduce sediment impacts to storm water will be distributed by mail to all residential home builders licensed in the City.

In years three (3) through five (5), the City will create one additional storm water brochure a year with a specific target audience.

**Responsible Department:** Environmental Programs

## **B. Environmental Web Page:**

### **Current Program:**

The Internet provides a very accessible means for making information and data available to citizens. The City's new under-construction web site will feature an Environmental Outreach page which will have a link to the City's SWMPP, MS4, Annual Report, and other storm water related topics, as well as provide information on any existing and future storm water related activities.

**Potential Targeted Audience:** General Public

### **Measurable Goals:**

In year one of the permit cycle, the City will expand its website to include an environmental outreach page and post links to its SWMP and Annual Report on the site. In year two of the permit cycle, the City will expand the website to include storm water related topics, information about the storm water management program in general, upcoming program events, information about how readers can reduce storm water impacts and links to other related websites. In year three of the permit cycle, the City will develop an email link for public inquiries and complaints related to storm water.

In years four (4) and five (5), the website will be maintained and updated as needed to remain in compliance with the general permit.

**Responsible Department:** Environmental Programs

## **C. Workshops:**

### **Current Program:**

Workshops are useful in educating a specific target audience about specific topic issues. Using existing training programs, the City will work with its partners to sponsor workshops in a variety of storm water topics for homeowners and the professionals. Examples of some potential workshops include but are not limited to the following: Nonpoint Education for Municipal Officials (NEMO), Rain Barrel, Erosion and Sediment Control, Stream Restoration, Invasive Species Control, and Low Impact Development (LID)/Green Infrastructure (GI) Workshops.

**Potential Targeted Audience:** Contractors, Developers, Elected Officials, Homeowners, Landscapers, and Professionals.

### **Measurable Goals:**

In year one of the permit, the City's Environmental Programs Department will be asked to create a list of potential storm water topics for workshops for the city to sponsor. Using the list as a guide, the City will sponsor one workshop per year of the permit cycle.

**Responsible Department:** Environmental Program:

#### **D. School Presentations:**

##### **Current Program:**

Teaching young students the importance of proper storm water management is of utmost importance to the success of any storm water program. Exposure to many different aspects of how to enjoy the outdoors. One aspect is the way the student can reduce storm water impacts. Educating the school age sector is the key to a future with successful storm water management.

**Potential Targeted Audience:** Classroom Students

##### **Measurable Goals:**

The City will sponsor clean water presentations at each school. Establish an annual Waters Expo and present storm water facts and other related topics to the students that attend the Expo.

**Responsible Departments:** Environmental Programs

#### **E. Curbside Recycling**

##### **Current Program:**

All recycling programs are a benefit to storm water management because they reduce a potential pollutant source by reducing, recycling and reusing.

**Potential Targeted Audience:** Homeowners

##### **Measurable Goals:**

Throughout the permit cycle, the City will encourage citizens to use the recycling available through the contracted waste collection company. Environmental Programs will request data from the contractor about the quality of recycled goods collected and report the data in the annual report. Increasing yearly totals will reflect achievement of goals. Recycling Dumpsters are located near 8475 1<sup>st</sup> Ave. Leeds.

**Responsible Departments:** Environmental Programs

#### **F. Watershed Signage & Environmental Awareness Signage**

##### **Current Program:**

Watersheds are a logical way to think about the connection between the land and the quality of water

we enjoy. How we manage and treat the land has a direct impact on the ability of water to support a number of important public uses like swimming, fishing, aquatic species habitat and a clean drinking water supply. Watershed signs increase public awareness about the importance of watersheds and encourage good stewardship of our valuable streams, wetlands, lakes and ground water.

**Potential Targeted Audience:** General Public

**Measurable Goals:**

In year one (1) of the permit cycle, the City will implement watershed signage within each Well Head area.

In years two (2) through five (5) of the permit cycle, the City will inspect and maintain existing watershed and environmental awareness signage. Throughout the permit cycle, Environmental Programs will encourage and assist any Boy Scout seeking an Eagle Scout Project in an environmental area. For example: labeling storm drain inlets, etc.

**Responsible Departments:** Environmental Programs

**G. Elected Officials Training:**

**Current program:**

Since elected officials are responsible for approving resolutions and ordinances that guide the implementation of the City's SWMP and also have budgetary control of it, it is very important to expand their knowledge of storm water management.

**Potentials Targeted Audience:** Elected officials

**Measurable Goals:**

The City will sponsor and/or host one NEMO workshop every permit cycle.

**Responsible Department:** Environmental Programs

**Evaluation**

The evaluation of a public education and outreach 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 1 through assessment of the success of the goals that were achieved.

**3 – 2 Public Involvement/Participation**

**Permit Requirement**

Public Participation/Involvement MCM 2 requires the City to develop, implement and evaluate a public participation program centered on the SWMP and the annual report. The development of this program will be documented throughout the process. The ongoing activities for public involvement may include

advisory councils, watershed associations, committees, stewardship programs and other environmental related activities. Once approved, the SWMP will be available to the public on the City's website.

### **Target Audiences**

MCM 2 includes various target audiences. Residential, commercial and industrial 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.

### **Target Pollutants and Sources**

MCM 2 will target non-point source pollutants found in storm water. These pollutants include, but are not limited to, sediment, trash, fertilizers, pesticides, pathogens and oils and greases. The sources that are targeted include, but are not limited to, illegal dumping, failing septic systems, impacts from development, construction site erosion, commercial parking lot runoff and improper application of fertilizers, pesticides, and herbicides.

### **Outreach Strategies, Goals and Timelines**

The City will employ a variety of strategies for MCM 2 from involvement with existing groups to developing additional mechanisms. Some efforts will also focus on public participation as a whole. Each strategy will be detailed below along with its goal, timeline and department responsible for implementation of the measure.

#### **A. Citizens Environmental Advisory Committee:**

##### **Current Program:**

The formation of a Citizen's Environmental Advisory Committee will be recommended to the City Council in 2014, if created, the committee will be made up of environmental consultants, biologist, engineers, botanist, private business owners, and City staff, including the Building Official and a representative from the Public Works Department. The Committee would serve various roles for the City from the annual review of the SWMP to environmental ordinance review and promulgation. Also, the committee will assist the City in applying for federal and state grant monies to support its efforts in storm water management through each of the MCM.

##### **Measurable Goal:**

In years one (1), a recommendation will be made for City Council consideration. If created, during years two through five the City will hold at least four (4) EAC meetings a year. During one of the meetings, the City's SWMP will be reviewed and updated as needed to maintain permit compliance.

**Responsible Departments:** Environmental Programs and Public Works

#### **B. Watershed Organizations:**

##### **Current Program:**

The City will build a relationship with local watershed to achieve our goal.

Measurable Goal:

In year one (1), the City will participate as required with the working group.

Responsible Department: Environmental Programs-Flood

**Measurable Goal:**

Through the duration of the permit cycle, City staff will attend at least fifty percent (50%) of the meetings held by the Freshwater Land Trust.

**Responsible Department:** Environmental Programs-Flood

**C Leeds Creekbank Festival**

**Current Program:**

The Leeds Creek Bank Festival will be used as an opportunity to educate citizens all aspects of the water cycle and other related natural resources. This effort also instills in the students a general environmental awareness and stewardship as well as specific coastal issues and protection strategies. The Creek Bank Festival will include citizens of all ages and from various communities within and outside the community.

**Measurable Goal:**

Through the duration of the permit cycle, City staff will participate in the Creek Bank Festival.

**Responsible Department:** Environmental Programs

**D. Keep Leeds Green and Clean Program**

**Current Program**

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

**Measurable Goal**

Through the duration of the permit cycle, City staff will participate and/or assist with at least one clean up day per permit year.

During the first permit cycle, the City will continue the program as is. During the remainder of the permit cycle the Environmental Programs unit will work with the City, County and other municipalities to sponsor/and or assist with a household hazardous waste amnesty day.

**Responsible Department:** Environmental Programs and Public Works

#### **F. Environmental Web Page:**

**Current Program:**

The Internet provides a very accessible means for making information and data available to citizens. The City's web site will feature an Environmental Outreach page which will have a link to the City's SWMPP, MS4 Annual Report, and other storm water related topics, as well as provide information on any existing and future storm water related activities.

**Potential Targeted Audience:** General Public

**Measurable Goals:**

In year one of the permit cycle, the City will expand its website to include an environmental outreach page and post links to its SWMPP and Annual Report on the site. In year two of the permit cycle, the City will expand the website to include storm water related topics, information about the storm water management program in general, upcoming program events, and information about how readers can reduce storm water impacts and links to other related websites.

In year three of the permit cycle, the City will develop an email link for public inquiries and complaints related to storm water.

In years four (4) and five (5), the website will be maintained and updated as needed to remain in compliance with the general permit.

**Responsible Department:** Environmental Programs

#### **G. Comprehensive Plan**

**Current Program:**

The City has adopted a Comprehensive Plan. The City will seek public input through meetings with the general citizens, public officials, City staff, the Planning Commission and various other entities. The plan is developed as guidance for future development within Leeds. There were at least four guiding principles or mission statements outlined in the document. They are listed below:

1. To continually confirm our purpose as the "Preferred Community in North Central Alabama" by providing superior educational facilities and opportunities so that Leeds educational facilities and opportunities so that Leeds children may remain nationally competitive graduates.
2. Excel in the provision of protection services, infrastructural facilities and cultural opportunities so that Leeds residents are afforded the highest quality of living possible.
3. Maintain vigorous citizen's oversight of municipal activities to ensure that opportunities are realized for continuous improvement in the provision of services, facilities and resources.

4. Foster an atmosphere, which stimulates economic growth and attracts quality industry through adequate transportation facilities, a stable and active business environment, a skilled and educated work force and a strong customer base.

This document is available on the City website.

**Measurable Goals:**

Within the permit cycle, the Comprehensive Plan would be reviewed by the Environmental Advisory Committee (if created) and the committee will make recommendations for the future update.

**Responsible Departments:** Environmental Programs and Planning Commission

**H. Coordination with other Agencies and Groups on Environmental Efforts**

**Current Programs:**

All-Terrain Vehicle (ATV) Trespass Taskforce The All-Terrain Vehicle (ATV) Trespass Taskforce is a City sponsored working group. Its members include the City of Leeds, Leeds Police, and Emergency Agents.

The ATV Trespass Taskforce's goal is to prevent all-terrain vehicle trespass and the erosion resulting from the activity.

**Measurable Goal:**

In years one (1) through five (5) of the permit cycle, City staff will attend at least four (4) such meetings per year for the duration of the permit.

**Responsible Departments:** Environmental Programs

**Evaluation**

The evaluation of public participation/involvement 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 2 through assessment of the success of the goals that were achieved.

**3 – 3 Illicit Discharge Detection and Elimination (IDDE)**

Illicit discharges into a storm drain system are defined by EPA as”.... any discharge to a MS4 that is not composed entirely of storm water...” Some exceptions include but are not limited to permitted industrial sources and discharges from firefighting activities. Some examples of illicit discharges include: sanitary wastewater, car wash, laundry, wastewaters, etc. These illicit discharges can enter a storm drain system either through a direct connection or indirectly by spills, dumped materials, and cracks in pipes. As a result, inadequately treated waste containing high levels of pollutants enter storm water.

## Permit Requirement

The Illicit Discharge Detection and Elimination (MCM 3) requires the City to develop, implement, enforce and evaluate a program to detect and eliminate illicit discharges and improper disposal, including spills not under the purview of another responding authority, into the City's regulated MS4 area, to the maximum extent practical. The program must include the following:

1. Annually update the storm water infrastructure inventory map, showing the location of all outfalls and the names and locations of all waters of the State that receive discharges from those outfalls; structural BMPs owned, operated, and maintained within the boundaries of the City's MS4 area. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the ms4 and implement appropriate enforcement procedures and actions. The ordinance shall be reviewed on an annual basis and updated when necessary.
2. Develop and implement a plan to detect and address none storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit; inform public employees, businesses, and the general public of the hazards that are generally associated with illegal discharges and improper disposal of waste.

## Exclusions

The Illicit Discharge Detection and Elimination MCM will include measures to control illicit discharges and improper disposal of wastes into storm water. In the execution of this element, the City of Leeds will exclude the following categories of none storm water discharges that are not required to be addressed by the State:

1. Water Line Flushing
2. Landscape Irrigation
3. Diverted Stream Flows
4. Rising Ground Watersheds
5. Uncontaminated Groundwater infiltration
6. Uncontaminated Pumped Groundwater
7. Discharges from Portable Water Sources
8. Foundation Drains
9. Air Conditioning Condensation
10. Irrigation Watersheds
11. Springs

12. Water from Crawl Space Pumps
13. Footing Drains
14. Lawn Watering
15. Individual Residential Car Washing
16. Flows from Riparian Habitats and Wetlands
17. De-chlorinated Swimming Pool Discharges
18. Fire Fighting Flows

### **Target Audiences**

MCM 3 includes various target audiences: Residential, commercial and industrial developers have been involved in the SMWP development. The general public, school, elected officials, developers, contractors and professional group 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.

### **Target Pollutants and Sources**

MCM 3 will target non-point source pollutants found in storm water. The pollutants include, but are not limited to, sediment, paints, fertilizers, pesticides, swimming pool discharges, pathogens and oils and greases. The sources that are targeted include, but are not limited to, illegal dumping, failing septic systems and/or illicit connections, swimming pool illicit connections, unpermitted construction site discharges, improper disposal of fertilizers, pesticides, and herbicides, paints, etc.

The City of Leeds appoints the Water Board members who are responsible for their ADEM permits. However, the City and Leeds Water Works have a great relationship and work together to achieve compliance with all environmental permits.

### **Outreach Strategies, Goals and Timelines**

The City will employ a variety of strategies for MCM 3 from creation and enforcement of ordinances to education outreach. The City's goal is to reduce illicit discharge to our MS4 to the maximum extent practical for implementation of measure.

#### **A. Compiling and Organizing Existing City's Storm water infrastructure Data**

##### **Current Program:**

This element of MCM 3 will involve staff locating all existing storm water infrastructure data in GIS format, manipulating it into more usable software and creating new maps. Currently, the City is mapping the location of existing storm water outfalls that discharge to state waters.

**Measurable Goal:**

In year one of the permit cycle, the City plans to locate and map all of existing storm water outfalls that discharge to State waters.

In years four and five the City would initiate the creation of a storm water outfall maintenance database that will track the location, description, condition of each existing outfall with an additional layer to track inspections and notes. The database will also allow for the addition of new outfalls submitted in As-built form to the City of Leeds.

**Responsible Department:** Environmental Programs

**B. Perform Field Assessments and Site Inspections****Current Program**

Field assessments are observations made during the daily duties of the Building Department. Site inspections will include field visits outside of an employee's normal duties in response to reports of potential noncompliance, or as a result of program directives. A process will be established for each of the designated field personnel to report none storm water discharges that are potentially in violation of the future ordinance. This process will include reporting 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. If necessary, this process will be modified to match the system established when the new ordinance is created. Currently City staff routinely inspects storm water infrastructure. Staff also responds to notifications of potential illicit discharges from the public and other agencies. To reduce the amount of pollutants in runoff, City crews regularly perform maintenance and cleaning on roadways, ditches, culverts, grounds, parks, and, channels. These practices will be described and recognized in appropriate parts of the program.

**Measurable Goals:**

In years one (1) and two (2), the City will:

1. Designate responsible personnel within departments for field assessments and site inspections.
2. Develop procedures for implementation of reporting/inspection and enforcement.

In years three (3) through five (5), the City will:

3. Educate the general public and commercial and industrial developments on hazards associated with illegal discharges.
4. Initiate basic field assessments to establish priority areas for the more focused inspections. Conduct a minimum of ten (10) focused area inspections during year three.
5. Respond per established procedures to all identified and reported potential illicit discharges and connections.

6. Collect and review data regarding enforcement activities in year five, as part of the annual report, to identify the principle pollutants and plan for future action to address that pollutant.

**Responsible Departments:** Environmental Programs, Fire Department, Public Works, and Water/Sewer Department.

### **C. Hazardous Materials Response Program**

#### **Current Program**

The storm water program will be coordinated with the existing hazardous materials response program operated by the City's Fire Department.

The Public Works Department and other entities that coordinate with the hazardous materials response program and will assist in this effort.

Leeds Fire Department currently operates an existing hazardous materials response program in coordination with Jefferson, Shelby and St. Clair County Emergency Management Offices.

#### **Measurable Goals:**

In year one (1), the City will:

1. Meet with the Fire Department to develop and implement strategies for incorporating storm water pollution prevention practices into the hazardous materials response program.
2. Monitor location, frequency, and type of response events and report information in the Annual SWMPP report.

In years two (2) through five (5):

3. Establish section on Environmental Web Page for Public inquiries and Reports regarding illicit discharges.
4. Advertise IDDE information on the City Webpage, in educational brochures/flyers and through local media, receive, respond and report appropriately to all reported events or inquiries fielded from the public.

**Responsible Departments:** Environmental Programs, Fire, Police and Public Works

### **D. Train City Staff**

#### **Current Program:**

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

program.

### **Measurable Goals:**

In year one (1), the City will:

1. Develop a training presentation for new hires on basic storm water issues
2. Develop a training presentation for new hires on IDE in year two (2) through (5), the City will
3. Provide one general storm water training session annually for new employees involved in program.
4. Provide specific training yearly for all employees with program responsibility such as street, and mowing crews.

**Responsible Departments:** Environmental Programs, and Public Works

### **Evaluation**

The evaluation of a MCM 3 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 3 through assessment of the success of the goals that were achieved.

## **3 – 4 Construction Site Storm water Runoff**

### **Permit Requirement**

The Construction Site Storm water Runoff Control (MCM 4) 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 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. ADEM terms these sites as qualified construction sites.

### **Target Audiences**

MCM 4 will target developers, contractors, homebuilders and professional consultants. MCM 4 will include the training of City staff from the Building Department, Federal, State and County agencies will also be included through coordinated efforts within the program.

### **Targeted Pollutants and Sources**

MCM 4 will mainly target construction sites for erosion and sediment control. Other potential targeted pollutants and sources are petroleum, oils and greases from equipment storage areas, pathogens from lack of portable facilities and pH changes through concrete washouts.

### **Outreach Strategy, Goals and Timeline**

The City will employ a variety of strategies for MCM 4 from training City building inspectors to implementing and enforcing an erosion and sediment control program through City ordinances. The City will rely upon ADEM standards for appropriate erosion and sediment controls for qualified construction sites. There will also be a focus on coordination with ADEM on compliance concerns. Each strategy will be detailed below along with its goal and timeline and department responsible for implementation of measure.

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

##### **Current Program:**

In the second year of the permit, the City will pursue an Erosion and Sediment Control Ordinance. This ordinance would regulate land disturbances that exceed a TBD area of exposed soils associated with land disturbance with the exception of agricultural operations.

##### **Measurable Goals:**

In the second year of the permit, the City will pursue and Erosion and Sediment Control Ordinance.

In year three the Environmental Programs Department will update its existing Erosion and Sediment Control Ordinance (if created). During the remainder of the permit cycle, the ordinance would go through an internal review and comment period. To be followed by submittal to the City Council for review and adoption. After adoption, implementation will begin. During the remainder of the permit cycle, following any updates to the Erosion and Sediment Control Ordinance, the BMP checklist would also be updated.

**Responsible Departments:** Building and Environmental Programs

#### **B. Commercial Land Use and Development Ordinance**

##### **Current Program:**

For all new and re-developments within the City Leeds corporate limits, an erosion and sediment control plan is required to be designed and submitted by a qualified credentialed professional (QCP). This plan is reviewed and approved by the Building Department and then forwarded to the Planning Commission for approval. Components of the plan have to meet and/or exceed the Alabama Handbook for Best Management Practices for Erosion and Sediment Control, most current edition (Alabama Handbook) and ADEM permit requirements. If for any reason, additional state and federal permits are required, such as an ADEM NPDES or US Corps wetland permit, the City will not issue the site a land disturbance permit or building permit until proof of the federal or state permit is submitted to the City. Sites are inspected along with building inspections for compliance with the ordinance. Enforcement mechanisms include written warning letters, stop work orders and municipal fines through the issuance of municipal offense tickets.

##### **Measurable Goals:**

In years one (1) through five (5), the City will review 100% of all submitted new and re-development erosion and sediment control plans.

**Responsible Department:** Environmental Programs

### **C. Erosion and Sediment Control Training for City Building Inspectors**

#### **Current Program:**

All City Building Inspectors are required to receive annual training through the 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 storm water runoff concerns.

#### **Measurable Goals:**

In years one (1) through five (5), continue the annual training required to keep building inspectors current in their certifications. Track the training and submit data in the City's Annual SWMPP Report.

**Responsible Department:** Building and Environmental Programs

### **D. Commercial and Residential Construction Site Inspections and Enforcement**

#### **Current Program:**

Inspections of all construction sites are an integral part of MCM 4. Prior to the start of any land disturbance on a qualified construction site, the developer must submit their ADEM construction general permit authorization. The City maintains an inventory of all qualified construction sites within the MS 4 area. Currently, all qualified construction sites are inspected a minimum of twice during the construction process. The City has created an Erosion and Sediment Control Inspection Form (See Appendix 3) that includes 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 the inspection, all discharge points are inspected and the site conditions are compared to the approved erosion and sediment control plan. Any deficiencies are noted and reported to the site manager and/or the developer. The developer has 48 hours to correct all deficiencies from the inspection or face a stop work order until they are corrected. The construction site is not completed until all areas are permanently stabilized, all construction debris removed and temporary sediment control structures removed. A final inspection is required prior to release from the permit.

Enforcement varies based on severity of the deficiencies. Minor concerns will receive a written or verbal warning requiring 48 hours to comply with the ordinance. If not corrected or there are major deficiencies, the City may stop work on the construction site. Stop work orders are typically 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 is taken by Environmental Programs to inspect, document and resolve the compliance issue using enforcement if needed.

#### **Measurable Goals:**

Although the City has a construction site inspection program, there is a need for enhancing several aspects in order to maintain compliance with the new general permit.

In year two (2), the City will pursue adoption of an 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 site and proximity of site to sensitive areas such as streams and wetlands. Priority construction sites include qualified construction sites that discharge to impaired water listed for sediment or Outstanding Alabama Water. Priority construction sites will receive precedence in inspections.

In year three, the City's goal is to enhance the database used to track all inspections and timelines for site compliance.

In year four, the City will determine the overall effectiveness of the program and modify as needed for permit compliance, by year five.

**Responsible Departments:** Environmental Programs and Code Enforcement

#### **D. Construction Associated with Sensitive Areas**

##### **Current Program:**

The City requires that all bulkheads, retaining walls, etc. within its corporate limits possess approved federal and state permits prior to issuance of any land disturbance and/or building permit. After the permitting process, the site is inspected during construction and a final inspection is performed upon completion to ensure that there are no adverse environmental impacts that have occurred during construction.

##### **Measurable Goals:**

The City plans to continue the implementation of this review process.

In year three (3), the goal would be to review the inspection process to determine if additional inspection requirements are warranted for these sites. These inspections would be documented as all other construction inspections. Also, any major deficiencies observed will be reported to the appropriate federal or state agency.

**Responsible Department:** Building Department

#### **Evaluation**

The evaluation of the program will include the achievement of the program 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 and documented in the annual report.

#### **3 – 5 Post Construction Storm Water Management in New and Re-Development**

The City will employ a variety of strategies for MCM 5 from enforcement of ordinances to education outreach. The City's goal is to minimize water quality impacts from new development and re-development sites. Each strategy will be detailed below along with its goal:

**Permit Requirements:**

Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre by insuring that controls are in place that would prevent or minimize water quality impacts. Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for the community.

Use 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.

Ensure adequate long-term operation and maintenance of BMPs.

**Target Audiences**

MCM 5 will target developers, contractors, and property owners associations.

**Target Pollutants and Sources**

MCM 5 will target non-point source pollutants found in storm water. These pollutants include, but are not limited to, sediment, paints, fertilizers, pesticides, swimming pool discharges, pathogens and oils and greases. The sources that are targeted include, but are not limited to, illegal dumping, failing septic systems and/or illicit connections, swimming pool illicit connections, unpermitted construction site discharges, improper disposal of fertilizers, pesticides, and herbicides, paints, etc.

**Strategies, Goals and Timelines**

The City will employ a variety of strategies for MCM 5 from enforcement of ordinances to education outreach. The City's goal is to reduce water quality impacts from new development and re-development to the maximum extent practicable. Each strategy will be detailed below along with its goal, timeline and department responsible for implementation of measure.

**A. Perform Field Evaluations and Long-term Maintenance and Monitoring of BMPs**

The goal of this element is to periodically review and assess the performance of the post-construction BMPs installed with new and re-development projects. Field inspections verifying the adequate construction of the BMPs in accordance with the approved improvement plans will be performed along with permit cycle inspections. The field inspections will include an evaluation of the BMPs and 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 year one (1), the City will update, as needed, design review guidance for plan reviewers.

In years one (1) through five (5), the City will review a minimum of 30% of post construction BMPs

annually, evaluate performance and design, and report the results in the annual reports and conduct enforcement as required to ensure compliance.

**Responsible Departments:** Environmental Programs, Community Development,

Public Works

## **B. Low Impact Development/Green infrastructure Ordinance**

### **Current Program:**

Low-impact Development 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. This approach implements engineered small-scale hydrologic controls to replicate the predevelopment hydrologic regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

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 with an emphasis on 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 year three, the City will survey local consultants and citizens to aid in the development of a Low Impact Development/Green infrastructure Ordinance. In year four, the draft ordinance will be presented to City departments for internal review. Once the comments are addressed from the internal review, the new ordinance will be taken to the city Council for review and adoption.

In year five (5), the ordinance will be implemented.

**Responsible Departments:** Community Development, Environmental Programs, and Public Works

## **C. Perform Education Outreach for the Development Community**

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

### **Measurable Goals:**

Years one (1) through five (5), the City will create new or gather existing available outreach materials from local agencies to have available for contractors and the general public at specific locations determine under the Public Education/Outreach MCM.

**Responsible Department:** Environmental Programs

### **Evaluation**

The evaluation of a MCM 5 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 5 through assessment of the success of the goals that were achieved.

### **3 – 6 Pollution Prevention/Good Housekeeping for Municipal Operations**

#### **Permit Requirement**

Pollution Prevention/Good Housekeeping for Municipal Operation (MCM 6) requires the City to 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 storm water pollutants, to the maximum extent practicable, in areas such as parks maintenance, fleet and building maintenance, new construction and land disturbances, storm water system maintenance, and all other applicable municipal operations.

The program must list all municipal operations and industrial activities that are impacted by this operation and maintenance program. The training program shall be coordinated with the public outreach programs for storm water pollution and illicit discharges. The program shall include maintenance activities, schedules and long-term inspection procedures for controls to reduce floatables and other pollutants to the MS4. The program shall also address controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, recycling collection centers, fleet or maintenance shops with outdoor storage areas and fill dirt storage areas.

Procedures shall be outlined for the proper disposal of waste removed from the MS4 and municipal operations, including materials such as dredge spoil, accumulated sediments, floatables and other debris. There will also be procedures to ensure the new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices.

#### **Target Audiences**

MCM 6 will target municipal operations, which include municipal employees and elected officials. Federal, state and county agencies will also be included through coordinated efforts with the program.

#### **Targeted Pollutants and Sources**

MCM 6 will target all non-point source pollutants found in storm water. These pollutants include, but are not limited to, sediment, trash, fertilizers, pesticides, pathogens, and oils and greases. The targeted sources are municipal operations and facilities and publicly owned properties and rights-of-way.

#### **Outreach Strategies, Goals and Timelines**

The City will employ a variety of strategies for MCM 6, but will identify strategies into two separate categories: Pollution Prevention and Good Housekeeping.

### **A. Pollution Prevention**

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

1. City Facility Recycling Programs-Flood
2. Storm water System Maintenance Programs-Flood
3. Litter Patrol
4. Storm water Capital Projects

#### **Measurable Goals:**

##### **City Recycling Program:**

The City municipal building will be equipped with recycling containers for paper, aluminum, plastic and cardboard. Employees are expected to recycle all these wastes with the exception of confidential documents. Confidential documents are shredded and recycled through a private company. Furthermore the City implemented recycling containers for plastic bottles and aluminum cans at our Sports Fields and during all festivals and events held in City parks.

##### **Stormwater Management System Maintenance:**

The storm water management system for the City contains grassed and concrete swales, culverts inlets and pipes. Currently these areas are maintained on an as-needed basis by determination of the Public Works. Areas are also maintained when valid complaints of drainage problems are filed with the City.

In year (1), the Public Works Department and Environmental Programs will meet to discuss a plan of action for storm water management system maintenance.

By year three (3), a plan will be developed for consistent efforts in managing storm water systems.

By year (4), the plan will be implemented with a tracking mechanism.

By year five (5), the goal is to show quantities of pollutants removed from the system and frequency of all areas maintained. Major areas of storm water management system maintenance will be tracked through capital storm water projects.

##### **Litter Patrol:**

The City operates and maintains its streets and right of ways in a manner to minimize discharge of pollutants. The Municipal Courts and Inspections Department have a litter collection program in

effect. Additionally, The Public Works Department prior to weekly mowing, designated crews pick up trash weekly from the City's ROW. Any sever ROW erosion noted during mowing is repaired in a timely manner. Grassed ditches serve as storm water filters during rain events.

In years one (1) through five (5), the City will track areas patrolled by the litter.

### **Capital Storm Water Projects:**

Each new budget year the City determines a list of capital projects. The Mayor's Office and Building Department is the lead in this effort. These projects normally include a tremendous amount of funding and hiring an outside engineering firm and outside contractor. Each year these projects are proposed to the City Council and Mayor for approval. If approved, they are budgeted for the following year. Some of these projects may be emergency repairs due to natural disasters. Emergency projects are completed as soon as practicable for the safety of the public.

In years one (1) through five (5), all capital storm water projects will be monitored for compliance with the City's proposed erosion and sediment control ordinance.

Inspections of these projects will be conducted as for all qualified construction sites. Any deficiencies will require immediate attention and compliance. The annual report will reflect a list of all projects, project location, details, goals of the project, and compliance inspections.

**Responsible Departments:** Council, Environmental Programs, Mayor, Public Works

### **B. Good Housekeeping**

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

1. Inventory of Facilities
2. Assessment of Facilities
3. SWMP Standard Operating Procedures (SOP) for Facilities
4. Public Works Department ADEM Permits

### **Measurable Goals:**

Inventory of Facilities:

In year one (1), the City's goal is to inventory all City owned facilities and conduct a baseline assessment for reduction of pollutants from storm water runoff. This inventory will include buildings, parks, vacant property, parking areas and ancillary storage areas.

It will also include the drainage area that each facility impacts and all potential pollutants.

### **Assessment of Facilities:**

All facilities that were inventoried in year one will have a complete assessment by year three of the permit. The assessment will include an inspection of all areas. All deficiencies will be identified and reported to the appropriate supervisor for remediation.

### **SWMP SOPs:**

Following the assessment, each facility will develop standard operating procedures (SOPs) in regards to storm water runoff and housekeeping practices. The goal is for the City to complete 10% of the facility SOPs per permit year.

**Responsible Departments:** Environmental Programs and Public Works

### **Training:**

Training is essential for all City employees regarding pollution prevention and good housekeeping. Previous MCMs detail specific training programs that will be developed and implemented. The City will also develop a training program for the purpose of educating employees regarding storm water runoff and pollution prevention. This training may be a part of other MCM training.

In year one (1), the City will:

1. Develop a training presentation for new hires on basic storm water issues
2. Develop a training presentation for new hires on IDDE, Pollution Prevention and Good Housekeeping

In year two (2) through (5), the City will:

3. Provide one general storm water training session annually for new employees involved in program.
4. Provide specific training in regards to facility SOPs yearly for all employees with program responsibility

**Responsible Departments:** Environmental Programs and all other City Departments

### **Evaluation**

The evaluation of the program will include the achievement of the program goals. Also during the permit term, the effectiveness of the program will reveal itself based on actual pollutant amount removal from the storm water management system. The results of the program will be evaluated annually and documented in the annual report.

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

### **Records of monitoring information shall include:**

The date, exact place, and time of sampling measurements

The name of the individual who performed the sampling or measurements;

The date(s) analyses were performed:

The names of the individual who performed the analysis;

The analytical techniques or methods used; and

The results of such analyses

Monitoring results will be reported with the SWMP Annual Report.

### **Target Pollutant**

Sediment will be the targeted pollutant for the City's Water Quality Monitoring Program.

### **Outreach Strategies, Goals and Timelines**

#### **Measureable Goals:**

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

The State'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 must certify these reports to an official designated by the governing board. 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 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 why the change(s) are necessary; and a change in the person or persons implementing and coordinating the SWMP.

The Environmental Programs Manager 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 collection of the information required for the annual reports.

The City will keep records required by the permit for at least five years, or 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 Building Department, 1040 Park Drive, Leeds, AL 35094.