

# Storm Water Management Plan (SWMP)

City of Texarkana, Arkansas

Small Municipal Separate Storm Sewer Systems (MS4)

Phase II MS4 Permit No. ARR040000, Tracking No. ARR040021, AFIN 88-00848



## ACKNOWLEDGEMENTS

The City of Texarkana would like to acknowledge the significant contributions made to the development of this plan over the years. The City acknowledges the extensive efforts of the Clerks Office, Code Enforcement Division, Engineering Division, Planning Division, Streets Division, Parks and Recreation Division, Environmental Maintenance Division, and Texarkana Water Utilities Department in implementing the plan.

Over the last year the following individuals have provided invaluable input and assistance to make this updated document a reality:

Tracie Lee  
Roger Douglas

In conclusion, my sincere appreciation goes for the team effort it has taken to get this document released for public use in service to our Citizens.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tyler E. Richards". The signature is stylized with a large, sweeping initial "T" and "R".

Tyler E. Richards, P.E., CFM  
Public Works Director

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## **Acronyms**

BMP	Best Management Practice
CWA	Clean Water Act
EPA	Environmental Protection Agency
PWD	City of Texarkana Public Works Department
GIS	Geographic Information Systems
HHW	Household Hazardous Waste
CBC	City Beautiful Committee
MEP	Maximum Extent Practicable
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
ATCOG	Ark-Tex Council of Governments
NPDES	National Pollutant Discharge Elimination System
P2	Pollution Prevention
SIC	Standard Industrial Classification
SSO	Sanitary Sewer Overflow
SWMP	Storm Water Management Program
SWPP	Storm Water Pollution Prevention
SWP3	Storm Water Pollution Prevention Plan
SWQM	Surface Water Quality Monitoring
TMDL	Total Maximum Daily Load
ADEQ	Arkansas Department of Environmental Quality
NPDES	National Pollutant Discharge Elimination System

## Definitions

*Best Management Practices* – schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. Best management practices also include treatment requirements, operating procedures, practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

*Control Measure* – any best management practice or other method used to prevent or reduce the discharge of pollutants.

*Discharge* – when used without a qualifier, refers to the discharge of storm water runoff or certain non-storm water discharges as allowed under the authorization of this general permit.

*Illicit Connection* – any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

*Illicit Discharge* – any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a National Pollutant Discharge Elimination System permit (other than the municipal separate storm sewer).

*Municipal Separate Storm Sewer System* – a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curb, gutters, ditches, man-made channels, or storm drains.

*National Pollutant Discharge Elimination System* – National program for issuing, modifying, revoking and reissuing, terminating, imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA.

*Outfall* – a point source at the point where a municipal separate storm sewer discharges to waters of the United States.

*Permitting Authority* – for the purposes of this general permit, the ADEQ.

*Redevelopment* – alterations of a property that change the footprint of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land.

*Storm Water* – storm water runoff, snow melt runoff, and surface runoff and drainage.

*Watershed* – The region draining into a river, river system, or other body of water.

*Waters of the United States* – Waters of the United States or waters of the U.S. means:

- (a) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) all interstate waters, including interstate wetlands;

- (c) all other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - (1) which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - (2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - (3) which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) all impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) the territorial seas; and
- (g) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

# **Introduction**

## **Regulatory Requirement**

The Clean Water Act (CWA) is a law enacted by Congress and signed by the President that establishes environmental programs, including the National Pollutant Discharge Elimination System (NPDES) program, to protect the Nation's waters and directs the U.S. Environmental Protection Agency (EPA) to issue rules on how to implement this law. Under the NPDES program, a municipal storm water program was developed in two phases.

Phase I of the EPA municipal storm water program was promulgated in 1990 under the authority of the Clean Water Act (CWA). Phase I relied on the NPDES permit coverage to address storm water runoff from medium and large municipal separate storm sewer systems (MS4s), serving populations of 100,000 and greater.

The Arkansas Department of Environmental Quality (ADEQ) received authority to administer the NPDES permit program in Arkansas for those discharges under the regulatory authority of the agency.

The Storm Water Phase II rule, promulgated December 8, 1999, was the next step in the EPA's efforts to preserve, protect, and improve the nation's water resources from polluted storm water runoff. The Phase II program requires small MS4s (serving populations <100,000 based on the 1990 census) in urbanized areas to implement programs and practices to control polluted storm water runoff through the NPDES permit program. This program includes the City of Texarkana. As a result, the City is required to:

- reduce the discharge of pollutants to the maximum extent practicable (MEP);
- protect water quality;
- satisfy the appropriate water quality requirements of the Clean Water Act; and manage storm water quality activities through the Storm Water Management Program (SWMP).

## **Storm Water Management Program**

On August 1, 2019 the ADEQ will issue the renewal of MS4 NPDES General Permit ARR040000 authorizing storm water and certain non-storm water discharges to the City's MS4. Small MS4s that meet the regulated criteria for Phase II of the NPDES Storm Water Program are required to submit a Notice of Intent (NOI) and updated Storm Water Management Program (SWMP). By submitting a SWMP and NOI to comply with the NPDES Phase II regulations, the City of Texarkana acknowledges the regulatory authority of the ADEQ and agrees to comply with NPDES ARR040000 permitting requirements to discharge directly into surface waters. This permit and authorization shall expire five years after the date of issuance. An annual report documenting compliance with the SWMP will be submitted no later than June 1 of each year. The annual report will address the previous permit year.

The City of Texarkana developed the SWMP in accordance with the requirements of the NPDES General Permit ARR040000. The SWMP will facilitate the City's efforts in reducing

storm water pollutants from the City's MS4, thereby protecting the City's storm water quality to the maximum extent practicable (MEP). Included in the SWMP are specific best management practices (BMPs) that will be implemented to reduce pollutants, measurable goals for each BMP, and an implementation schedule developed for the five-year permit term. Various BMPs were developed for each of the six minimum control measures (MCMs) that are required by the Phase II Rule. These six MCMs are:

- <sup>31</sup> Public Education and Outreach on Storm Water Impacts;
- <sup>31</sup> Public Participation and Involvement;
- <sup>31</sup> Illicit Discharge Detection and Elimination;
- <sup>31</sup> Construction Site Runoff Control;
- <sup>31</sup> Post-Construction Runoff Control; and
- <sup>31</sup> Pollution Prevention and Good Housekeeping.

## **Program Overview**

### **Background Information for the City of Texarkana**

The City of Texarkana is situated between the state line of Arkansas and Texas and serves the community as a Twin City. The City of Texarkana was incorporated in 1873. The community covers over 50 square miles of area and had a population estimated at 30,681 in 2013.

Numerous streams in Texarkana drain to two major water bodies: Days Creek of the Sulphur River and the Red River. Days Creek is feed by Nix Creek that runs across the city from north to south. The majority of creeks run east/west on the south side of Interstate Highway 30 to Nix Creek. North of Interstate Highway 30 the creeks drain to the north to McKinney Bayou that drains directly to the Red River.

### **Historical City Storm Water Management**

The Public Works Department oversees and inspects the infrastructure construction of new development and redevelopment. The Code Enforcement Division ensures the effectiveness of erosion control measures during development and redevelopment through permitting. The Planning Division also encourages the preservation of natural channels and requires drainage easements and control measures in the 100-year floodplain.

The Public Works Department was created and developed to support and protect public health and promote environmental quality. Problematic areas pertaining to storm water have been identified and addressed in the past through the storm water program. Some of these issues have included salvage yards, sanitary sewer overflows, household hazardous waste disposal, and hazardous material spills. These issues have been addressed through enforcement when necessary.

### **Management Program Development Process**

The unique hydrology and water quality concerns of the City of Texarkana have been considered in developing this Storm Water Management Program. In preparing the Program, the City of Texarkana's Public Works Department has conducted meetings with a multitude of city personnel to discuss the different activities that may have storm water impacts. Some of the functions that have been identified as having a potential impact have included streets services, equipment maintenance services, airport, code enforcement, police, fire, parks and recreation, engineering, and building inspections.

The Program describes a number of BMPs that address storm water issues identified as most prevalent or problematic in the watersheds served by the MS4. The BMPs meet a number of objectives created by the aforementioned departments. These objectives, organized by minimum control measure, are to:

Public Education:

- Inform residents, visitors, public service employees, businesses, commercial and industrial facilities, and construction site personnel of steps they can take to improve storm water quality and explain the impacts of non-point source pollution to storm water.
- Educate commercial, industrial, and institutional groups about the impacts of their work on the storm water quality and the steps needed to reduce these effects.
- Address the viewpoints of various economic and cultural groups in the design of the education program.

Public Involvement:

- Comply with any State and local public notice requirements when implementing a public involvement/participation program.
- Include the public in the development, implementation, and review of the storm water management program.
- Include input from different economic and cultural groups.

Illicit Discharge Detection and Elimination:

- Develop a comprehensive map of the storm sewer system.
- Develop a program for the detection and tracking of illicit discharges.
- Develop an ordinance that will effectively eliminate illicit discharges.

Construction:

- <sup>31</sup> Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites.
- <sup>31</sup> Have procedures for site plan review of construction plans that consider potential water quality impacts.
- <sup>31</sup> Have procedures for site inspection and enforcement of control measures.
- <sup>31</sup> Have sanctions to ensure compliance (established in the ordinance or other regulatory mechanisms).
- <sup>31</sup> Establish procedures for the receipt and consideration of information submitted by the public.

Post-Construction:

- <sup>31</sup> Develop and implement strategies which include a combination of structural and/or non-structural BMPs.
- <sup>31</sup> Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal, or local laws.
- <sup>31</sup> Ensure adequate long-term operation and maintenance of controls.

Pollution Prevention/Good Housekeeping for Municipal Operations:

- Review maintenance activities.
- Review maintenance schedules.
- Long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from the separate storm sewer.

- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, disposal areas, and waste transfer stations.
- Procedures for properly disposing waste removed from the separate storm sewers and areas listed above (such as accumulated sediments, floatables, and other debris).

## **Public Review of the Storm Water Management Program**

In accordance with the General Permit ARR040000, Part 4.2.2, the NOI and SWMP will be available to the public if requested in writing at 216 Walnut Street, Public Works Department. As an extra outreach resource, they will be on the City website at <http://www.txkusa.org/ar/departments/public-works/storm-water.html>. Opportunity to comment is available on the website by return address to [tyler.richards@txkusa.org](mailto:tyler.richards@txkusa.org).

## **Recordkeeping and Tracking**

In accordance with the General Permit ARR040000, Part 4.2.2, Section A, the City of Texarkana will retain all records, a copy of the NPDES General Permit, and records of all data used to complete the application for the General Permit and make this information available to the public if requested to do so in writing.

The City of Texarkana will track all BMP activities, results, and changes to the SWMP through an annual report that will be submitted to the ADEQ by November for each year of the permit term. To keep the City of Texarkana in compliance with the General Permit conditions, the annual report will include all factors required by the General Permit, including the status of the compliance with permit conditions, assessments of BMPs, and any changes to the SWMP.

## **Table of Organization**

The City of Texarkana, Arkansas operates under a Director-Manager form of government. Six (6) Directors (elected from geographic districts) and a Mayor (elected at-large) represent the City and set City policies. The mayor and directors appoint the City Manager, who is responsible for preparing recommendations for directors' consideration, serves as the directors' chief advisor, and carries out the directors' policies. The City Attorney assists with updating existing ordinances and writing and implementing new ordinances.

### Table of Organization

<b>Position/Department</b>	<b>Name/Contact Information</b>	<b>Responsibilities</b>
Public Works Director Public Works Dept.	Tyler Richards, P.E., CFM P.O. Box 2711 Texarkana, Texas 75504 870.779.4977	Cognizant Official SWMP Plan Review
Chief Building Official Public Works Dept.	Shawn Maxey, CFM P.O. Box 2711 Texarkana, Texas 75504 870.779.4971	Plan Review Enforcement Construction Site Inspection
Grants Administrator Public Works Dept.	Tracie Lee P.O. Box 2711 Texarkana, Texas 75504 870.779.1354	Record Keeping of SWMP, NOI, SWPPP, Enforcement Items, Minimum Control Measures, Website
Media Manager City Clerk Office	Eric Ethridge P.O. Box 2711 Texarkana, Texas 75504 870.779.4990	Website Posting Cable Access Channel My Space Accounts Facebook Account
Parks & Recreation Superintendent Public Works Dept.	Adam Dalby P.O. Box 2711 Texarkana, Texas 75504 870.779.4943	Housekeeping Parks Swimming Pools Ponds Mowing
Streets Superintendent Public Works Dept.	Tim Carter P.O. Box 2711 Texarkana, Texas 75504 870.779.4943	Housekeeping Streets Construction Site Inspection
Texarkana Water Utilities Executive Director Water Utilities Dept.	J.D. Phillips 801 Wood Street Texarkana, Texas 75501 903.798.3800	Water Main Flushing/Leaks Sanitary Sewer Leaks Water Quality Testing Plan Review

**Minimum Control Measures**  
**Section 1.0**  
**Public Education and Outreach (MCM #1)**

**1.1 MCM #1 Regulatory Requirement(s)**

(a) A public education program to distribute educational materials to the community or conduct equivalent outreach activities that will be used to inform the following groups within the MS4 area:

- (1) Residents;
- (2) Visitors;
- (3) Public service employees;
- (4) Businesses;
- (5) Commercial and industrial facilities; and
- (6) Construction site personnel.

The outreach must inform the public about the impacts that polluted storm water run-off can have on water quality, hazards associated with illegal discharges and improper disposal of waste, and ways they can minimize their impact on storm water quality.

(b) Via documentation, the MS4 operator must ensure that a reasonable attempt was made to reach all constituents within the MS4 area to meet this measure.

**1.2 MCM #1 Current Programs**

The City of Texarkana provides general public education to residents by several means of communication including:

- > News releases - The City publishes news releases in the local daily newspaper and posts them on the City website.
- > Water quality mailouts - The City sends mailouts with information regarding drinking water quality to residents annually as required by Arkansas Department of Health.
- > City website - News releases and public notices are posted on the City's website, as is the schedule for the open access cable channel at txkusa.org.
- > Open access cable channel - City Directors meetings, board/commission meetings, and news conferences are shown on Channel 10. Other interview programs and shows discuss upcoming city events and current issues.
- > Meetings with local contractors regarding Phase II program requirements have been held.

### **1.3 MCM #1 Selected BMPs**

#### **1.3.1 BMP1-1 - Public Mailouts/Newsletter**

Texarkana will develop and distribute information pieces on storm water quality and drainage issues in the City. These information pieces, which will target City residents, will provide information on what residents can do to help address these issues. The information pieces will be distributed as either inserts in City utility bills or with the annual water quality mailout.

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

The measurable goal for implementing this BMP 1-1 is to distribute two information pieces per year for Years 1 through 5. Copies of the mailouts distributed and the dates of distribution will be kept in an appendix to this Plan. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Chief Building Official has responsibility for development and implementation of Public Education BMP1-1.

##### ***Selection Rationale***

Public mailouts were selected as a BMP for MCM#1 because this fits within the City's current activities (annual water quality mailout) and will reach a large percentage of the population.

#### **1.3.2 BMP1-2 - News Releases**

The City will develop storm water quality news releases of interest to the general public, which will be published in the local newspaper. Information related to the SWMP will be provided; along with announcements regarding upcoming events (refer to Section 2, Public Involvement/Participation).

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

The measurable goal for implementation of BMP1-2 is to develop and publish one storm water news release per year for Years 3 through 5. Copies of the releases and the dates published will be kept in an appendix to this Plan. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The City Clerk's Office and the Public Works Engineering Department will share responsibility for implementation of BMP1-2. Content for the news releases will be developed by the Public Works Engineering Department. The news releases will be provided to the City Clerk's Office for coordination with the local newspaper to publish the releases.

##### ***Selection Rationale***

News releases were selected as a BMP for MCM#1 because this fits within the City's current activities.

### 1.3.3 BMP1-3 - City Storm Water Web Page 8

Texarkana will use their City website to inform the public about the SWMP. A web page has been created and includes general storm water quality information as well as topics of interest to the general public. Information targeting tourists will be added to the web page.

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

The measurable goals for implementation of BMP1-3 include updating the storm water web page in Year 1 through 5. Copies of the website updates will be kept in an appendix to this Plan. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Media Relations Specialist has responsibility for creating informational pieces and updating the webpage. Information necessary to create and update the web page will be provided by the Public Works Department.

#### ***Selection Rationale***

Updating the storm water web page was selected as a BMP for MCM#1 because the City has created a webpage and personnel capable of creating informational pieces and updating the existing webpage.

### 1.3.4 BMP1-4 - Business Storm Water Quality Flyer

The City will update and distribute storm water quality flyers for target businesses, such as vehicle service, garden suppliers, food service and shopping centers. These flyers will be distributed to area businesses.

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

The measurable goal for implementation of BMP1-4 is distributing one flyer per year for Years 1, 3, and 5. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

Public Works will coordinate responsibility for development and implementation of BMP1-4 with Texarkana Water Utilities.

#### ***Selection Rationale***

Texarkana selected business storm water quality flyers as one of their BMPs for MCM #1 because this is the most effective means of reaching local businesses.

### 1.3.5 BMP1-5 - Construction/Post-Construction Handout

The City currently has a handout describing erosion and sediment controls available for the development community. This handout will be updated with the City's new construction site storm water runoff control requirements, as well as post-construction storm water management requirements. The handout will be provided to all Development Permit applicants. In addition, the handout will be posted on the City's storm water web page. This BMP1-5 also meets the requirements for Construction Site Storm Water Runoff Control (refer to Section 5) and Post-Construction Storm Water Management in New Development and Redevelopment (refer to Section 6).

***Measurable Goals***

The measurable goal for implementation of BMP1-5 is to distribute the handout to 100 percent of Development Permit applicants in Years 1 through 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Public Works Permit Clerk has responsibility for development and implementation of BMP1-5.

***Selection Rationale***

Texarkana elected to distribute construction/post-construction handouts as part of MCM #1 because this will help the City gain support for the SWMP from the development and construction community. In addition, the City already has a handout that can be modified.

1.3.6 BMP1-6 - Municipal Employee Training

The City currently has an orientation program for new employees and regular safety training for existing employees. A pollution prevention/good housekeeping video will be shown to all current employees during the safety training. New employees will watch the video during their orientation. Additional training will be provided as necessary when new programs or procedures are implemented. The City will document that all employees receive the training. This BMP also meets the requirements for Pollution Prevention and Good Housekeeping for Municipal Operations (refer to Section 4).

***Measurable Goals***

The measurable goals for implementation of BMP1-6 include providing training to existing employees in Year 2, including the video in new employee orientation in Year 2, and beginning additional training as necessary in Year 3. Development and implementation will be according to the schedule below.

***Responsible Persons***

The Human Resource Department has responsibility for implementation of BMP1-6. The video will be provided by the Public Works Department.

***Selection Rationale***

Use of a video to provide training to municipal employees was selected as a BMP for MCM #1 because the City already has a video and the City already provides regular training to employees.

1.3.7 BMP1-7 - Documentation of Public Education and Outreach

The City has developed and implemented procedures for documenting their public education and outreach efforts to show a reasonable attempt was made to reach all constituents, including residents, visitors, public service employees, businesses, commercial and industrial facilities, and construction site personnel.

***Measurable Goals***

The measurable goals for implementation of BMP 1-7 include updating documentation procedures in Year 2 and implementing these procedures in Year 3. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Grants Administrator has responsibility for updating and implementation of BMP1-7.

***Selection Rationale***

Texarkana selected this BMP to meet the ADEQ permit requirement for documenting public education and outreach efforts.

**Minimum Control Measures**  
**Section 2.0**  
**Public Involvement / Participation (MCM #2)**

**2.1 MCM #2 Regulatory Requirement(s)**

- (a) Identify and implement a public involvement and participation program. This must include provisions to allow opportunities for all constituents within the MS4 area to participate in the storm water management program development and implementation.
- (b) The MS4 operator must, at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.
- (c) The MS4 operator must, via documented efforts, ensure that sufficient opportunities were allotted to involve all constituents interested in participating in the program process to meet this measure. Correctional facilities will not be required to implement this MCM.

**2.2 MCM #2 Current Programs**

Currently, the City has a number of volunteer programs that promote public involvement. These programs, which are coordinated through the Public Works Department includes City wide clean up, Weed & Seed Program, Downtown Cleanup & Beautification Projects and Yard Waste Recycling. Texarkana citizens and groups are encouraged to undertake beautification projects for public parks and other areas.

**2.3 MCM #2 Selected BMPs**

**2.3.1 BMP2-1 - Comply with State and Local Public Notice Requirements**

Texarkana will comply with state and local public notice requirements when implementing a public involvement/participation program. The City typically follows the advertisement requirements outlined in the Arkansas Bid Laws (30 Arkansas Administrative Code Chapter 271, Section 271.025). These requirements will be followed for the public involvement/participation program.

***Measurable Goals***

The measurable goal for implementation of BMP 2-1 is to provide state and local required public notice for all public meetings held to discuss the SWMP. Copies of the notices posted in the local newspaper will be kept in an appendix to this Plan to document the notice requirements were met. Implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The person organizing the meeting or event has responsibility for publishing the public notice and providing a copy of the notice to the Grants Administrator for documentation.

***Selection Rationale***

Texarkana selected this BMP to meet the ADEQ permit requirement for publicizing events and meetings related to the SWMP.

### 2.3.2 BMP 2-2 – Pre-Construction/Pre-Bidders Meetings

The City held meetings with contractors during the development of updates to the SWMP to inform the public about the SWMP and solicit input for the SWMP updates. Key stakeholder groups identified included residents/general public, developers, industry and local government. The public notice requirements outlined in Section 2.3.1 were followed in publicizing these meetings.

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

The measurable goals for implementation of this BMP 2-2 were to hold meetings with developers, contractors, and the general public to inform and solicit opinions on the updates of the SWMP. Public notice and minutes will be kept in the appendix to this Plan.

#### ***Responsible Persons***

The Public Works Engineering Department was responsible for development and implementation of this BMP.

#### ***Selection Rationale***

Pre-Construction/Pre-Bidder's meetings were selected as a BMP for MCM #2 to gain support for Texarkana's SWMP and involve different groups in the updates to this Plan.

### 2.3.3 BMP2-3 - Public SWMP Presentations

Texarkana develops presentations annually on the City's SWMP and the Phase II requirements. The presentation are shown periodically on the open access cable channel to reach other local groups, including City staff, developers and contractors, industry, and the general public. Public notices in the newspaper, on the City website, and facebook page are used to publicize the airings of the presentation.

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

The measurable goals for implementation of this BMP 2-3, the presentations are aired annually on the open access cable channel beginning in Year 1 of 2004 SWMP. Copies of public notices and presentations will be kept in an appendix to this Plan.

#### ***Responsible Persons***

The Director of Public Works has responsibility for developing the presentation and workshop materials, as well as coordinating the presentation and workshops. Airing the presentation on the local open access cable channel will be the responsibility of the Information Systems Specialist.

#### ***Selection Rationale***

Public presentations were selected as a BMP for MCM #2 to help educate City Council and other local groups on the City's SWMP.

### 2.3.4 BMP2-4 - Documentation of Public Involvement/Participation

The City will update and implement procedures for documenting their public involvement/participation efforts to show a reasonable attempt was made to involve all members of the community in the City's SWMP.

***Measurable Goals***

The measurable goals for implementation of BMP 2-4 include updating documentation procedures in Year 2 and implementing these procedures in Year 3 Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Grants Administrator has responsibility for updating and implementation of BMP2-4.

***Selection Rationale***

Texarkana selected this BMP to meet the ADEQ permit requirement for documenting public involvement/participation efforts.

## Minimum Control Measure

### Section 3.0

#### Illicit Discharge Detection and Elimination (MCM #3)

##### 3.1 MCM #3 Regulatory Requirement(s)

- (a) Illicit Discharges A section within the SWMP must be developed to establish a program to detect and eliminate illicit discharges to the MS4. The SWMP must include the manner, ordinance or other regulatory mechanism, used to effectively prohibit illicit discharges.
  - (1) Detection - The SWMP must list the techniques used for detecting illicit discharges.
  - (2) Elimination - The SWMP must include appropriate enforcement procedures and actions for removing the source of an illicit discharge.
  
- (b) Non-Storm Water Discharges A section within the SWMP must be developed to establish a program to detect and address non-storm water discharges and illegal dumping to the MS4. All non-storm water flows, including those listed in Part II.B. and Part VII.B., must be considered by the permittee to determine if they are a significant contributor of pollutants to the MS4. All non-storm water discharges that significantly contribute pollutants to the MS4 must be effectively prohibited. The prohibition must be done through an ordinance, or other regulatory mechanism unless the MS4 operator does not have the authority to develop ordinances or other regulatory mechanisms. The regulations must include appropriate enforcement procedures and actions.

Fire fighting activities are excluded from being prohibited and only need to be addressed if they are determined to be a significant contributor of pollutants to the MS4.
  
- (c) Incidental Non-Storm Water Discharges A list of occasional incidental non-storm water discharges that will not be addressed as illicit discharges may also be developed. If developed, the listed discharges must not be reasonably expected to be significant sources of pollutants, because of either the nature of the discharge or the conditions that have been established for allowing these discharges to the MS4. Any local controls or conditions placed on these discharges must be documented in the SWMP. The SWMP must also include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to the MS4.
  
- (d) Storm Sewer Map
  - (1) A map of the storm sewer system must be developed and must include the following:
    - (i) the location of storm sewer pipes, ditches, and other conveyances owned by the permittee, or at a minimum, the drainage area for each outfall;
    - (ii) the location of all major outfalls; and
    - (iii) the names and locations of all waters of the U.S. that receive discharges from the outfalls.

- (2) The SWMP must include the source of information used to develop the storm sewer map, including how the outfalls were verified and how the map will be regularly updated.

### **3.2 MCM #3 Current Programs**

Texarkana has a Geographic Information System (GIS) based mapping system that currently includes a street base map and lot and block map. Although the water and sewer systems have been mapped, a different base map was used in this mapping effort. A drainage network map was developed as part of the Master Drainage Plan, which was completed in 2008. This map used a reproduction of a USGS 7.5 minute quadrangle map as the base map and showed drainage features. In addition, the City has a hand-drawn inlet map that was created through field verification of inlet locations.

The City is currently developing a new base map using recent aerial photography. Once this base map is complete, an updated drainage map will be developed using the existing maps and the new base map. The City's Development Guide requires that as-built drawings for public infrastructure must be submitted to the City following project completion in both digital and hard copy format. This will allow the City to regularly update the drainage map.

The City's Water Quality Department keeps track of local commercial and industrial facilities. Those generating wastewater are included in the City's pretreatment program. The Water Quality Department has also identified facilities covered by the NPDES General Permit for storm water discharges from industrial facilities. Field surveys of facilities are conducted every three years by the Water Quality Department. This department also monitors five stream locations around the City using hydro labs and automatic samplers. If problems are discovered, Water Quality personnel investigate to find the source.

Illegal dumping of waste oil, chemical waste, and industrial refuse is prohibited by City ordinance. In addition, the City has an ordinance that requires oil and gas well sites to submit an inventory of hazardous materials used onsite to the City Fire Department. Reported or discovered illegal dumping/discharges and spills are typically investigated by the Environmental Health Department. The Water Quality Department and Fire Department also respond to spills in some instances.

The City has an ordinance requiring that swimming pool water discharged to the storm sewer system have a total residual chlorine concentration of 0.5 milligrams per liter (mg/l) or less. Failure to comply with this ordinance is a misdemeanor that can include a fine of up to \$500.

The City currently updates the City Stormwater page with informational pieces regarding illegal discharges and improper disposal of waste as well as airing these informational pieces on the government access channel.

### **3.3 MCM #3 Selected BMPs**

#### **3.3.1 BMP3-1 - Storm Sewer Map**

Texarkana will continue working to update the current storm sewer system map showing the location of all outfalls, the names and locations of all water of the U.S. that receive discharges from those outfalls, and all drainage conveyances (i.e. channels, pipes). As part of the mapping effort, the locations of outfalls will be verified. Once complete, this map will be updated using as-built drawings for new developments.

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

The measurable goals for implementation of BMP3-1 are to continue to inventory existing maps in Year 1, continue to develop a new storm sewer system map using the existing maps and the new aerial base map in Year 2, and verify outfall locations in Years 3 through 5. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Public Works Engineering Department has responsibility for development and implementation of this BMP.

##### ***Selection Rationale***

Development of a storm sewer map was selected as a BMP for MCM#3 to meet the permit requirements. In addition, the City had planned to update their maps.

#### **3.3.2 BMP3-2 - Illicit Discharge Ordinance**

The City will continue to review and modify existing ordinances as needed to effectively prohibit non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions.

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

The measurable goals for implementation of this BMP are to continue to develop, review, and modify existing ordinances as needed in Year 1, finalize the ordinances in Year 2, and implement the ordinances in Year 3. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Director of Public Works will review and modify existing ordinances as needed. The City Attorney's Office will assist in the finalization and implementation of the revised ordinances.

##### ***Selection Rationale***

The development and implementation of an illicit discharge ordinance was selected as a BMP for MCM #3 to meet the NPDES general permit requirements. The City has existing ordinances that can be modified to meet these requirements.

### 3.3.3 BMP3-3 - Program to Detect and Address Illicit Discharges

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Texarkana will evaluate existing programs and identify additional program requirements and resource needs to detect and address non-storm water discharges including illegal dumping into the storm sewer system. The program will move from the current reactive, complaint-driven program to a more proactive system-wide evaluation. At this time, specific elements of the program have not been identified. However, the City will continue tracking local commercial and industrial facilities through the Water Quality Department. The Water Quality Department will also continue conducting field surveys and monitoring stream locations to detect illicit discharges. Illicit discharges are currently investigated by the Water Quality Department. This practice will likely be continued. Finally, the City may conduct dry weather screening of outfalls during the outfall location verification activities conducted as part of BMP3-3.

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

The measurable goals for implementation of BMP3-3 are to evaluate the existing program and identify techniques to detect and address illicit discharges, non-storm water discharges, and illegal dumping in Year 1; develop procedures to track area commercial and industrial facilities in Year 1; finalize the program in Year 2; acquire additional resources and training in Year 2; implement the program in Year 3. This program will be documented in an appendix to this Plan. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Water Quality Department has responsibility for development and implementation of the illicit discharge program.

#### ***Selection Rationale***

The NPDES permit requires the development of a program to detect and address illicit discharges. The City plans to continue their existing programs in this area and make modifications and conduct additional activities as necessary.

### 3.3.4 BMP3-4 - Identify Non-Storm Water Discharges

Texarkana has identified non-storm water discharges in the City and determine which discharges are acceptable and which should be prohibited. The allowable non-storm water discharges included in the NPDES general permit for Phase II MS4s will be reviewed and the potential impact of these discharges on storm water quality in the City will be evaluated. Any discharges that could have an adverse impact on water quality will be prohibited in the City's ordinances. Acceptable non-storm water discharges will be posted on the City's storm water web page.

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

The City will review and evaluate the potential impact of the allowable non-storm water discharges from the NPDES general Phase II MS4 permit in Year 1. Allowable non-storm water discharges will be posted on the City's storm water web page in Year 1. If necessary, non-storm water discharges that will not be allowed in Texarkana will be included in the City's ordinances (refer to Section 3.3.2). Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Public Works Engineering Department will be responsible for reviewing and evaluating non-storm water discharges. Allowable non-storm water discharges will be posted on the City's storm water web page by the Information Systems Specialist.

#### ***Selection Rationale***

Texarkana selected identifying non-storm water discharges as a BMP for MCM #3 to meet the NPDES permit requirements.

### 3.3.5 BMP3-5 - Building Inspector Training

Building inspectors for the City currently receive training to help them identify cross-connections between sanitary sewer lines and storm sewer lines, as well as improper connection of floor drains to storm sewer lines. The City will continue this training to help prevent illicit discharges.

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

The City will continue training building inspectors to identify potential illicit discharges. Current training will be evaluated in Year 1. Any necessary changes to the training will be implemented in Year 2. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Building Official will be responsible for reviewing and evaluating current training for building inspectors, as well as making any necessary changes to the training.

#### ***Selection Rationale***

This BMP was selected for MCM #3 because the City currently provides training to building inspectors.

### 3.3.6 BMP3-6 - Illicit Discharge/Dumping Call-In Program

The City has a telephone hotline procedure for the public to report any illegal dumping or illicit discharges. Voicemail service is provided for after-hours calls. The hotline number is publicized in the phone book and on the City's storm water web page. This hotline will also be used for the public to report potential storm water issues at construction sites (refer to Section 5.0 for Construction Site Storm Water Runoff Controls).

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

The measurable goals for BMP3-6 are to continue to publicize the hotline in and respond to all complaints received in Year 1 through 5. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Building Official will be responsible for updating the hotline procedures. The Water Quality Department will be responsible for implementing BMP3-6 to meet the measurable goals outlined in Section 3.3.6.1.

#### ***Selection Rationale***

An illicit discharge/dumping hotline was selected as a BMP for MCM #3 because this will provide a means for citizens to become involved in the SWMP and assist City employees in detecting potential storm water problems.

### 3.3.7 BMP3-7 - Industrial/Commercial Storm Water Quality Brochure

This BMP is described in Section 1.3.6 (Public Education and Outreach).

**Section 4.0**

**Pollution Prevention/Good Housekeeping for Municipal Operations (MCM #4)**

**4.1 MCM#4 Regulatory Requirement(s)**

- (a) Good Housekeeping and Best Management Practices Controls must be used to reduce or eliminate the discharge of pollutants when runoff from municipal operations is determined to be a significant contributor of pollution to the MS4. Examples of municipal operations and municipally owned areas include, but are not limited to:
  - (1) park and open space maintenance;
  - (2) street, road, or highway maintenance;
  - (3) fleet and building maintenance;
  - (4) storm water system maintenance;
  - (5) new construction and land disturbance;
  - (6) municipal parking lots;
  - (7) vehicle and equipment maintenance and storage yards;
  - (8) waste transfer stations; and
  - (9) salt/sand storage locations.
  
- (b) **Training**  
A training program must be developed for all employees responsible for municipal operations subject to the pollution prevention/good housekeeping program. The training program must include training materials directed at preventing and reducing storm water pollution from municipal operations. Examples or descriptions of training materials being used must be included in the SWMP.
  
- (c) **Structural Control Maintenance**  
If best management practices include structural controls, maintenance of the controls must be performed at a frequency determined by the MS4 operator and consistent with maintaining the effectiveness of the BMP. The SWMP must list all of the following:
  - (1) maintenance activities;
  - (2) maintenance schedules; and
  - (3) long-term inspection procedures for controls used to reduce floatables and other pollutants.
  
- (d) **Disposal of Waste**  
Waste removed from the MS4, from structural controls, or collected as a result of municipal operations and maintenance activities must be properly disposed. A section of the SWMP must be developed to include procedures for the proper disposal of waste, including:
  - (1) dredge spoil;
  - (2) accumulated sediments; and
  - (3) floatables.
  
- (e) **Municipal Operations and Industrial Activities**  
The SWMP must include a list of all:
  - (1) municipal operations that are subject to the operation, maintenance, or training program developed under the conditions of this section; and
  - (2) municipally owned or operated industrial activities that are subject to NPDES storm water regulations. The SWMP must include an individual permit number,

general permit authorization number, or a copy of a signed NOI or NEC for each industrial activity conducted by the MS4 and subject to NPDES storm water regulations. If an NOI or NEC has been submitted, but an acknowledgment has not yet been received from the ADEQ, a copy of the submitted NOI or NEC Form may be made readily available.

## **4.2 MCM#4 Current Programs**

The Streets and Drainage Division, which is part of the Public Works Department, is responsible for maintenance of public streets and drainage ways, as well as creeks. Texarkana has an annual overlay program and seal coat program for City streets. These programs are typically conducted by area contractors. The Streets and Drainage Division generally handles only minor repairs inhouse, with major repairs routed through the Capital Improvements Program (CIP). In addition, the City has a street sweeping program. A maintenance plan designed to keep City-owned drainage improvements functioning properly has been developed and implemented by the City. The sanitary sewer and water distribution systems are maintained by Texarkana Water Utilities.

City employees currently participate in a mandatory monthly safety-training program. In addition, employees receive training for specialized activities through outside seminars and association with technical or professional groups.

## **4.3 MCM#4 Selected BMPs**

### **4.3.1 BMP4-1 - City Pollution Prevention Program**

Texarkana will review current municipal operations and areas to identify potential sources of storm water pollution. The potential pollutant sources will be prioritized and any current good housekeeping practices and/or BMPs will be evaluated. Additional structural and/or nonstructural controls will be selected to address these pollutant sources. An inspection schedule and procedures will then be developed for the controls, and the controls and inspection program will be implemented.

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

The measurable goals for implementation of BMP4-1 are to identify municipal operations and document potential pollutant sources in Year 1, update the Pollution Prevention Program as needed in Year 2, complete updates to the Program in Year 3, and implement the updated Program in Year 4. The Pollution Prevention Program will be documented in an appendix to this Plan. Development and implementation will be according to the schedule in Section 7.0.

#### ***Responsible Persons***

The Public Works Director, Streets Superintendent and the Parks and Recreation Superintendent will share responsibility for reviewing municipal operations and developing the draft Program. The Safety Specialist will be responsible for implementing the Program.

#### ***Selection Rationale***

The NPDES permit requires MS4s to use good housekeeping and BMPs for municipal operations. The City currently has practices that will become part of this program. Modifications to these procedures will be made and new procedures will be developed as necessary.

#### 4.3.2 BMP4-2 - Municipal Employee Training

This BMP is described in Section 1.3.8 (Public Education and Outreach).

Central Facility to wash vehicles.

#### 4.3.3 BMP4-3 - Long-Term O&M Plan for Structural Controls

The City will identify operations and maintenance (O&M) requirements for existing and proposed structural controls identified as part of BMP4-3. An O&M schedule will be developed for each control, along with assignments for responsible person(s). This information will be documented in a Long-Term O&M Plan for Structural Controls.

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

The measurable goals for implementation of BMP4-3 include updating identified O&M requirements, schedules, and responsible person(s) for each structural control in Year 3; and finalization and implementation of the updated Long-Term O&M Plan for Structural Controls in Year 4. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Public Works Director will share responsibility for implementation of BMP4-3.

##### ***Selection Rationale***

The NPDES permit requires that a maintenance program be developed and implemented for any structural controls employed by the municipality. The City currently has maintenance procedures in place for drainage channels and streets.

#### 4.3.4 BMP4-4 - Municipal Waste Disposal Procedures

The City will continue to identify any municipal operations that generate wastes and the types of wastes generated. Current waste disposal procedures will be evaluated and, if necessary, new or modified procedures will be developed. The procedures will be documented and municipal employees will be trained in proper waste disposal procedures (refer to BMP 4-2).

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

The measurable goals for implementation of BMP4-4 include monitoring the identified municipal operations generating wastes and the types of wastes generated in Year 1, developing and documenting waste disposal procedures and training municipal employees on any needed changes in Years 2 and 3, and implementing updated waste disposal procedures in Year 4. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Public Works Director and the Parks and Recreation Director will share responsibility for implementation of BMP4-4.

##### ***Selection Rationale***

Procedures for proper disposal of waste must be included in the SWMP according to the NPDES permit requirements. The City has waste disposal procedures in place that will be modified as necessary to meet the permit requirements.

*Section 5.0*

**Construction Site Storm Water Runoff Control (MCM #5)**

**5.1 MCM#5 Regulatory Requirement(s)**

- (a) The program must include the development and implementation of, at a minimum, an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State and local law.
- (b) Requirements for construction site contractors to, at a minimum:
  - (1) implement appropriate erosion and sediment control best management practices; and
  - (2) control waste such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
- (c) The MS4 operator must develop procedures for:
  - (1) site plan review which incorporate consideration of potential water quality impacts;
  - (2) receipt and consideration of information submitted by the public; and
  - (3) site inspection and enforcement of control measures.

**5.2 MCM #5 Current Programs**

All development in the City of Texarkana must comply with the erosion control requirements outlined in the City's Drainage Criteria and Ordinance Book, which was adopted by ordinance. As part of the development permitting process, the erosion control plan and related information is submitted to the City Engineer for review along with the construction plans. The City Engineer reviews this information for drainage, erosion control, and floodplain considerations, as well as compliance with City ordinances, the Master Drainage Plan, and the Drainage Criteria. A construction inspector is assigned to the project to ensure all City codes, policies, and procedures are followed.

The City has an ordinance that regulates erosion and debris from residential and commercial construction sites. Per this ordinance, any accumulation of mud, sediment, gravel, or similar material obstructing a public roadway, gutter, drainage inlet or drainage pipe is considered a public nuisance. The City Engineer is responsible for notifying the party creating the nuisance in writing that the accumulation must be removed within 10 days. If the party fails to correct the nuisance, the City will remove the accumulation and can assess a lien against the party for the expenses associated with the removal.

Currently the City requires the erosion and sediment control at construction sites required by the state as we do not have the City's SWM Ordinance in place. The Public Works Department intends to present the SWM Ordinance to the Board of Directors for adoption in November 2019.

The City of Texarkana Stormwater Requirements for Construction is as follows:

Large Construction Sites (10 + acres):  
\_\_\_ Stormwater Permit

- \_\_\_ Stormwater Management Plan (including existing conditions and site proposed plans)
- \_\_\_ Stormwater Pollution Prevention Plan (SWPPP)
- \_\_\_ Stormwater Detention Plan
- \_\_\_ Stormwater Quality Plan (if required)
- \_\_\_ Copy of approved ADEQ NPDES permit
- \_\_\_ Submit required Plans to CTA Engineering for review *prior to land disturbance*
- \_\_\_ Post on-site ADEQ Permit, CTA Stormwater Permit, and SWPPP
- \_\_\_ Use Best Management Practices (BMP's) to reduce runoff
- \_\_\_ Contact CTA Engineering (Stormwater) 870-779-4971 for an inspection within 10 days after installation of all Stormwater BMP's
- \_\_\_ Inspect BMP's weekly or after .5 inch rain event and maintain records on-site
- \_\_\_ Remove any off-site tracking daily from the public right-away
- \_\_\_ Remove all unnecessary BMP's after soil stabilization
- \_\_\_ Maintain a solid waste dumpster on site to dispose of building materials and solid waste

Medium Construction Sites (5 to 10 acres):

- \_\_\_ Stormwater Permit
- \_\_\_ Stormwater Management Plan (including existing conditions and proposed site plans)
- \_\_\_ Stormwater Pollution Prevention Plan (SWPPP)
- \_\_\_ Stormwater Detention Plan
- \_\_\_ Stormwater Quality Plan (if required)
- \_\_\_ Copy of approved ADEQ NPDES permit
- \_\_\_ Submit required Plans to CTA Engineering for review *prior to land disturbance*
- \_\_\_ Post on-site ADEQ Permit, CTA Stormwater Permit, and SWPPP
- \_\_\_ Use Best Management Practices (BMP's) to reduce runoff
- \_\_\_ Contact CTA Engineering (Stormwater) 870-779-4971 for an inspection within 10 days after installation of all Stormwater BMP's
- \_\_\_ Inspect BMP's weekly or after .5 inch rain event and maintain records on-site
- \_\_\_ Remove any off-site tracking daily from the public right-away
- \_\_\_ Remove all unnecessary BMP's after soil stabilization
- \_\_\_ Maintain a solid waste dumpster on site to dispose of building materials and solid waste

Small Construction Sites (1 to 5 acres):

- \_\_\_ Stormwater Permit
- \_\_\_ Stormwater Management Plan (including existing conditions and proposed site plans)
- \_\_\_ Stormwater Pollution Prevention Plan (SWPPP)
- \_\_\_ Stormwater Detention Plan
- \_\_\_ Stormwater Quality Plan (if required)
- \_\_\_ Submit required Plans to CTA Engineering for review *prior to land disturbance*
- \_\_\_ Post on-site QLP Small Construction Site Notice, CTA Stormwater Permit, and SWPPP
- \_\_\_ Use Best Management Practices (BMP's) to reduce runoff
- \_\_\_ Contact CTA Engineering (Stormwater) 870-779-4971 for an inspection within 10 days after installation of all Stormwater BMP's
- \_\_\_ Inspect BMP's weekly or after .5 inch rain event and maintain records on-site
- \_\_\_ Remove any off-site tracking daily from the public right-away
- \_\_\_ Remove all unnecessary BMP's after soil stabilization
- \_\_\_ Maintain a solid waste dumpster on site to dispose of building materials and solid waste

Resident City Planner heads up Pre-submittal conference with developers.

City Planner – All commercial plans reviewed for codes.

### 5.3 MCM #5 Selected BMPs

#### 5.3.1 BMP5-1 – Develop Construction Storm Water Ordinance

The City's Drainage Criteria includes erosion and sediment controls for construction activities. This manual was adopted by City ordinance. In addition, the City has other ordinances related to construction storm water runoff. These ordinances will be reviewed and modified as necessary to meet the requirements outlined in the NPDES general Phase II MS4 permit, including enforcement provisions and other requirements in accordance with the NPDES construction general permit.

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

The measurable goals for implementation of BMP5-1 include reviewing and modifying, as needed, existing City ordinances in Year 1, finalizing the revised ordinances in Year 1, and implementing the revised ordinances in Year 2. Development and implementation will be according to the schedule in Section 7.0.

##### ***Responsible Persons***

The Development Services Department will review and modify existing ordinances. The City Attorney's Office will assist in the finalization and implementation of the revised ordinances.

##### ***Selection Rationale***

The development and implementation of a construction storm water ordinance was selected as a BMP for MCM #5 to meet the NPDES general permit requirements. The City has existing ordinances that have been modified to meet these requirements.

#### 5.3.2 BMP5-2 - Update Drainage Criteria and Develop Erosion Control Manual

As mentioned previously, the City has a Drainage Criteria and (DCECM) that includes erosion and sediment control requirements for construction activities. The City will review and update the DCECM to include any additional or alternative erosion/sediment controls. Waste control requirements/guidelines will be established and included in the DCECM. During this process, the City will solicit input from area developers and contractors. These meetings also meet the requirements for Public Involvement/Participation (MCM #2).

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

The measurable goals for implementation of BMP5-2 include meeting with area developers and contractors in Year 1; evaluating erosion/sediment and waste controls in Year 1; updating the DCECM in Year 1; and implementing the new DCECM requirements in Year 2. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Development Services Director has responsibility for development and implementation of BMP5-2.

***Selection Rationale***

This BMP was selected for MCM #5 because the City has a manual with recommended erosion control measures that can be updated to meet the NPDES permit requirements.

5.3.3 BMP5-3 - Site Plan Review Procedures

The City will update their current site plan review procedures to consider factors that impact construction site storm water runoff (nature of construction, site topography, soil characteristics, condition of receiving stream, etc.).

***Measurable Goals***

The measurable goals for implementation of BMP5-3 include evaluating current site plan review procedures and identifying necessary changes in Year 1 and implementing any new procedures in Year 2. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director of Public Works has responsibility for development and implementation of BMP5-3.

***Selection Rationale***

This BMP was selected for MCM #5 because the City has existing site plan review procedures that can be modified to meet the NPDES permit requirements.

5.3.4 BMP5-4 - Construction Site Inspection Procedures

The City will update their current site inspection procedures to consider storm water runoff controls.

***Measurable Goals***

The measurable goals for implementation of BMP5-4 include evaluating current site inspection procedures and identifying necessary changes in Year 1 and implementing any new procedures in Year 2. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director of Public Works has responsibility for development and implementation of BMP5-4.

***Selection Rationale***

This BMP was selected for MCM #5 because the City has existing site inspection procedures that can be modified to meet the NPDES permit requirements.

5.3.5 BMP5-5 - Seminar/Training for Contractors and Developers

The City will provide training for area developers and contractors on the City's requirements related to construction site storm water runoff. Changes to the DCECM will be reviewed along with City inspection and enforcement procedures.

***Measurable Goals***

The measurable goals for implementation of BMP5-5 include developing training materials and providing training in Year 2. Development and implementation will be according to the schedule below.

***Responsible Persons***

The Director of Public Works has responsibility for implementation of BMP5-5.

***Selection Rationale***

The City selected a seminar/training for contractors and developers as a BMP for MCM #5 to gain support for the SWMP and increase compliance with the new requirements for construction sites.

5.3.6 BMP5-6 - Illicit Discharge/Phone Call-In

This BMP is described in Section 3.3.6 (Illicit Discharge Detection and Elimination). Citizen complaints are logged into a database. The information is passed on the appropriate City personnel. The City's website ([www.txkusa.org](http://www.txkusa.org)) has a link (Storm Water Management) on the front page. The link goes directly to the Public Works page. There are links there for educational materials and contacting the Public Works Department.

5.3.7 BMP5-7 - Construction/Post-Construction Handout

This BMP is described in Section 1.3.7 (Public Education and Outreach).

**Section 6.0**  
**Post Construction Storm Water Management in New Development and**  
**Redevelopment (MCM #6)**

**6.1 MCM #6 Regulatory Requirement(s)**

- (a) Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community;
- (b) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State and local law; and
- (c) Ensure adequate long-term operation and maintenance of BMPs.

**6.2 MCM #6 Current Programs**

The City's subdivision ordinance and zoning ordinance govern development in Texarkana. Drainage and storm water controls are also covered by City ordinances. The City's Master Drainage Plan and Drainage Criteria provide additional guidance and requirements for development.

For residential development, a Pre-submission Proposal showing a detailed layout of the subdivision with existing and proposed features must be submitted for City approval. Building plans, a building permit application, and a site plan must be submitted to the Building Inspection Division for commercial development.

Once the Pre-submission Proposal or site plan has been approved, the development permitting process begins. This process requires submission of a Development Permit application, engineering reports and technical information, and construction plans (including specifications) to Public Works prior to construction. The Director of Public Works reviews this information for drainage, erosion control, and floodplain considerations, as well as compliance with City ordinances, the Master Drainage Plan, and the Drainage Criteria.

The City will continue to accept land donations along creek and other water bodies. The subdivision Ordinance requires that land that is subject to flooding of topographically unsuitable for residential occupancy and lands that may increase the danger to health, life, or property, or aggravate erosion or flood hazard be set aside and not developed. Drainage easements will be required on all new development where needed. The ordinance requires a minimum width of fifteen (15) feet of drainage easement or right-of-way along a watercourse, drainage way, natural channel or stream. No construction or fence is allowed in the easement without written approval. No construction is permitted in a drainage easement involving a tributary identified on the FEMA flood boundary map. The City's Subdivision Ordinance addresses good housekeeping measures, however the proposed SWM Ordinance will cover good housekeeping measures intensively. The City's website contains an educational program informing citizens of various ways to prevent storm water pollution as well as the City's government access channel. Infill development is occurring at this time.

**6.3 MCM #6 Selected BMPs**

**6.3.1 BMP6-1 - Post-Construction Storm Water Ordinance**

As discussed above, some of the City's existing ordinances address post-construction storm water controls. The City will review and modify these ordinances as necessary to meet the requirements

outlined in the NPDES general Phase II MS4 permit, including enforcement provisions. Post-construction controls appropriate for Texarkana will be identified and included in the Drainage Criteria (refer to BMP6-2).

***Measurable Goals***

The measurable goals for implementation of BMP6-1 include reviewing and modifying existing City ordinances, as needed, in Year 4, finalizing the revised ordinances in Year 4, and implementing the revised ordinances in Year 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Development Services Department will review and modify existing ordinances. The City Attorney's Office will assist in the finalization and implementation of the revised ordinances.

***Selection Rationale***

The development and implementation of a post-construction storm water ordinance was selected as a BMP for MCM #6 to meet the NPDES general permit requirements. The City has existing ordinances that can be modified to meet these requirements.

6.3.2 BMP6-2 - Update Drainage Criteria

As mentioned previously, the City has a Drainage Criteria that includes erosion and sediment control requirements for construction activities. The City will review and update the Drainage Criteria to include post-construction storm water runoff controls. During this process, the City will solicit input from area developers and contractors. These meetings also meet the requirements for Public Involvement/Participation (MCM #2).

***Measurable Goals***

The measurable goals for implementation of BMP6-2 include identifying post-construction control alternatives in Years 2 and 3; meeting with area developers and contractors in Year 3; updating the DCECM in Year 4; and implementing the new DCECM requirements in Year 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director or Public Works has responsibility for development and implementation of BMP6-2.

***Selection Rationale***

This BMP was selected for MCM #5 because the City has a manual with recommended erosion control measures that can be updated to meet the NPDES permit requirements for post-construction.

6.3.3 BMP6-3 - Site Plan Review Procedures

The City will update their current site plan review procedures to consider factors that impact post-construction site storm water runoff.

***Measurable Goals***

The measurable goals for implementation of BMP6-3 include evaluating current site plan review procedures and identifying necessary changes in Year 4 and implementing any new procedures in Year 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director or Public Works has responsibility for development and implementation of BMP6-3.

***Selection Rationale***

This BMP was selected for MCM #6 because the City has existing site plan review procedures that can be modified to meet the NPDES permit requirements.

6.3.4 BMP6-4 - Post-Construction Site Inspection Procedures

The City will update their current site inspection procedures to consider post-construction storm water runoff controls.

***Measurable Goals***

The measurable goals for implementation of BMP6-4 include evaluating current site inspection procedures and identifying necessary changes in Year 4 and implementing any new procedures in Year 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director or Public Works has responsibility for development and implementation of BMP6-4.

***Selection Rationale***

This BMP was selected for MCM #6 because the City has existing site inspection procedures that can be modified to meet the NPDES permit requirements.

6.3.5 BMP6-5 - Seminar/Training for Contractors and Developers

The City will provide training for area developers and contractors on the City's requirements related to post-construction storm water management. Changes to the DCECM will be reviewed along with City inspection and enforcement procedures.

***Measurable Goals***

The measurable goals for implementation of BMP6-5 include developing training materials and providing training in Year 5. Development and implementation will be according to the schedule in Section 7.0.

***Responsible Persons***

The Director or Public Works has responsibility for development and implementation of BMP6-5.

***Selection Rationale***

The City selected a seminar/training for contractors and developers as a BMP for MCM #6 to gain support for the SWMP and increase compliance with the new post-construction requirements.

6.3.6 BMP6-6 - Structural Storm Water Control Maintenance

The City will identify all permanent storm water controls, determine maintenance requirements and schedules, and implement routine maintenance. Currently, the developer is responsible for maintenance of drainage channels for a one-year warranty period after construction is complete, after which the City assumes responsibility. The City will continue this policy for all structural storm water controls.

***Measurable Goals***

The measurable goals for implementation of BMP6-6 include identifying structural controls requiring maintenance in Year 3, establishing maintenance procedures and schedules in Year 4, and implementing inspections and maintenance in Year 5. Development and implementation will be according to the schedule in Section 7.0

***Responsible Persons***

The Public Works Department will be responsible for identifying structural controls requiring maintenance. Public Works Manager will be responsible for establishing procedures and schedules, as well as implementing inspections and maintenance.

***Selection Rationale***

The City selected this BMP to meet the NPDES permit requirements.

6.3.7 BMP6-7 - Construction/Post-Construction Handout

This BMP is described in Section 1.3.7 (Public Education and Outreach).

## **Section 7.0 BMP Implementation Schedule**