

Texas Pollutant Discharge Elimination System Stormwater Phase II MS4 General Permit



Town of Double Oak, Texas Stormwater Management Program

Prepared By:



4000 Fossil Creek Blvd.
Fort Worth, Texas 76137-2720

**July 2019
AVO 35308.005**

Table of Contents

List of Appendices	iii
Acronyms	iv
1.0 INTRODUCTION	1
1.1 Regulatory Requirement.....	1
2.0 PROGRAM OVERVIEW	3
2.1 Background Information for the Town of Double Oak	3
2.2 Stormwater Management Program Development	3
2.3 Public Review and Comment of the Stormwater Management Program.....	3
2.4 Annual Reporting.....	3
2.5 Recordkeeping and Tracking.....	4
3.0 TOWN OF DOUBLE OAK STORMWATER MANAGEMENT PROGRAM	6
3.1 Introduction	6
3.2 MCM1 Public Education, Outreach, and Involvement.....	7
DISTRIBUTE STORMWATER EDUCATIONAL MATERIALS	9
POST SWMP AND ANNUAL REPORTS TO TOWN WEBSITE	11
VOLUNTEER CLEANUP ACTIVITIES	12
3.3 MCM2 Illicit Discharge Detection and Elimination.....	13
ENFORCE TOWN ORDINANCE AND PROCEDURES TO PROHIBIT AND REMOVE ILLICIT DISCHARGES	15
VISUAL INSPECTION OF SELECTED STORMWATER OUTFALLS DURING DRY WEATHER	17
UPDATE STORM SEWER MAP SHOWING ALL OUTFALLS AND NAMES OF WATERS OF THE UNITED STATES	19
EDUCATE OR TRAIN FIELD STAFF THAT MAY OBSERVE AN ILLICIT DISCHARGE	20
3.4 MCM3 Construction Site Runoff Controls	21
IMPLEMENT AND MAINTAIN DOUBLE OAK TOWN ORDINANCE AND ENFORCEMENT MECHANISM TO REQUIRE EROSION AND SEDIMENT CONTROLS AT CONSTRUCTION SITES > 1 ACRE	24
REQUIRE SUBMITTAL OF CONSTRUCTION SITE SWPPP FOR REVIEW BY TOWN STAFF	26
IMPLEMENT PROCEDURES FOR CONSTRUCTION SITE INSPECTION OF RUNOFF CONTROLS	27
TRAIN TOWN INSPECTORS IN CONDUCTING PROPER SITE INSPECTIONS	28
IMPLEMENT MECHANISM FOR CONTRACTOR COMMENT AND PROCEDURES FOR COMMENT CONSIDERATION IN REGARDS TO CONSTRUCTION SITE RUNOFF CONTROLS	29
3.5 MCM4 Post-Construction Stormwater Management in New Development and Redevelopment.....	30
ENFORCE REQUIREMENT OF POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT SITES > 1 ACRE	32
REQUIRE LONG-TERM MAINTENANCE OF POST-CONSTRUCTION STORMWATER CONTROL MEASURES	34
3.6 MCM5 Pollution Prevention/Good Housekeeping for Municipal Operations.....	36

ASSESS MUNICIPAL PROPERTIES FOR APPROPRIATE STORMWATER POLLUTION PREVENTION CONTROLS	40
DEVELOP AND IMPLEMENT PROCEDURES TO PROPERLY DISPOSE OF WASTE FROM THE TOWN OF DOUBLE OAK FACILITIES	41
DEVELOP AND IMPLEMENT CONTRACTOR OVERSIGHT PROCEDURES	42
TRAIN TOWN STAFF ON IMPLEMENTING POLLUTION PREVENTION AND GOOD HOUSEKEEPING PRACTICES	43
4.0 REFERENCES	44
5.0 DEFINITIONS	45

List of Appendices

APPENDIX A	TPDES GENERAL PERMIT TXR 040000
APPENDIX B	NOTICE OF INTENT (NOI) FOR COVERAGE UNDER TPDES PERMIT
APPENDIX C	BMP IMPLEMENTATION SCHEDULE
APPENDIX D	ORDINANCES

Acronyms

BMP	Best Management Practice
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
ISWM	Integrated Stormwater Management
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Change
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination System
UA	Urbanized Area

1.0 INTRODUCTION

1.1 Regulatory Requirement

The Clean Water Act (CWA) is a federal law that establishes environmental programs, including the National Pollutant Discharge Elimination (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 stormwater program was developed in two phases, Phase I and Phase II.

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

The NPDES Stormwater Phase II regulations, which target small MS4s located fully or partially within an "urbanized area" and construction activities disturbing more than one acre of land, were promulgated by the Environmental Protection Agency (EPA) on December 8, 1999. These regulations apply to all jurisdictions within a delineated urbanized area regardless of individual population. The latest decennial census (2000) by the U.S. Census Bureau identified the Town of Double Oak as a community that is operating an MS4 within an urbanized area, and thus is regulated under the NPDES Stormwater Phase II regulations.

The Texas Commission on Environmental Quality (TCEQ) was granted the authority in 1998 from the EPA to administer the Texas Pollutant Discharge Elimination System (TPDES). This authority is granted through a Memorandum of Agreement with the EPA to administer the NPDES system as it applies to the State of Texas. The TPDES requirements must be at least as stringent as those set forth by the NPDES program.

This program requires that the Town of Double Oak:

- 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 stormwater quality activities through the Stormwater Management Program (SWMP).

The Town of Double Oak has developed the SWMP in accordance with the requirements of the TPDES Small MS4 General Permit TXR040000 for obtaining authorization for stormwater discharges and certain non-stormwater discharges. The SWMP has been developed to reduce the amount of pollutants carried into the MS4 by stormwater runoff as required by the TPDES General Permit.

The Town of Double Oak is required to develop a SWMP that describes specific actions that will be taken over a five-year period to reduce pollutants and protect the Town's stormwater quality to the MEP. The specific activities to be implemented are Best Management Practices (BMPs).

The SWMP must also set measurable goals and provide a schedule for the implementation of the BMPs. Various BMPs must be developed for each of the five minimum control measures (MCMs) that are required by the Phase II Rule. The five required MCMs are:

1. Public Education, Outreach, and Involvement;
2. Illicit Discharge Detection and Elimination;
3. Construction Site Stormwater Runoff Control;
4. Post-Construction Stormwater Management in New Development and Redevelopment;
and
5. Pollution Prevention and Good Housekeeping for Municipal Operations.

The MS4 General Permit includes a sixth MCM that only applies to Level 4 MS4s that was not included. The permit also includes the optional seventh MCM that address's stormwater from municipal construction activities. The Town of Double Oak will not consider the seventh MCM at this time.

2.0 PROGRAM OVERVIEW

2.1 *Background Information for the Town of Double Oak*

The Town of Double Oak is located approximately six miles west of Lewisville in Denton County, Texas. Double Oak is bordered by the town of Flower Mound, town of Copper Canyon, and town of Bartonville. The Town was incorporated on May 25, 1974 and currently has a land area of 2.5 square miles. In 2010, the population of Double Oak was estimated at 2,867. A location map is presented in Figure 1.

The majority of the Town lies within the Timber Creek Watershed, and a small northern portion of town lies within the Poindexter Branch Watershed. The Town has approximately 1.1 stream miles within the Town limits. The stream miles within Double Oak are comprised of Timber Creek while Poindexter Branch is not located within the town limits. Timber Creek flows in an easterly direction and discharges into the Elm Fork of the Trinity River.

2.2 *Stormwater Management Program Development*

The hydrology and water quality concerns of the Town of Double Oak have been considered in developing this Stormwater Management Program. The Plan herein describes the development and implementation of the Stormwater Management Program. In preparing this Plan, the Town of Double Oak has considered different activities, municipal and public, that have stormwater impacts. Some of the municipal departments that have been identified as having stormwater impacts include Public Works, Police, and Fire.

This SWMP includes the five MCMs required by the TPDES program and the EPA Phase II Final Rule. Each of the five required MCMs includes a summary that outlines the TCEQ requirements for that component of the plan. The summary is followed by specific BMPs that include measurable goals and target dates, and the implementing responsibility within the Town of Double Oak.

2.3 *Public Review and Comment of the Stormwater Management Program*

In accordance with the general permit TXR040000, Part II, Section E, Number 12, the SWMP will be available for review at the Town Hall, located at 320 Waketon Road, Double Oak, Texas 75077.

2.4 *Annual Reporting*

The Town of Double Oak will track BMP activities, results, and changes to the SWMP through an annual report that will be submitted to the TCEQ Executive Director within 90 days at the end of each permit year. The annual report will include factors required by Part IV, Section B, Number 2 of the general permit, including:

- a) The status of the compliance with permit conditions, assessments of BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measureable goals,
- b) A summary of the results of information collected and analyzed including monitoring data used to assess the success of the program,

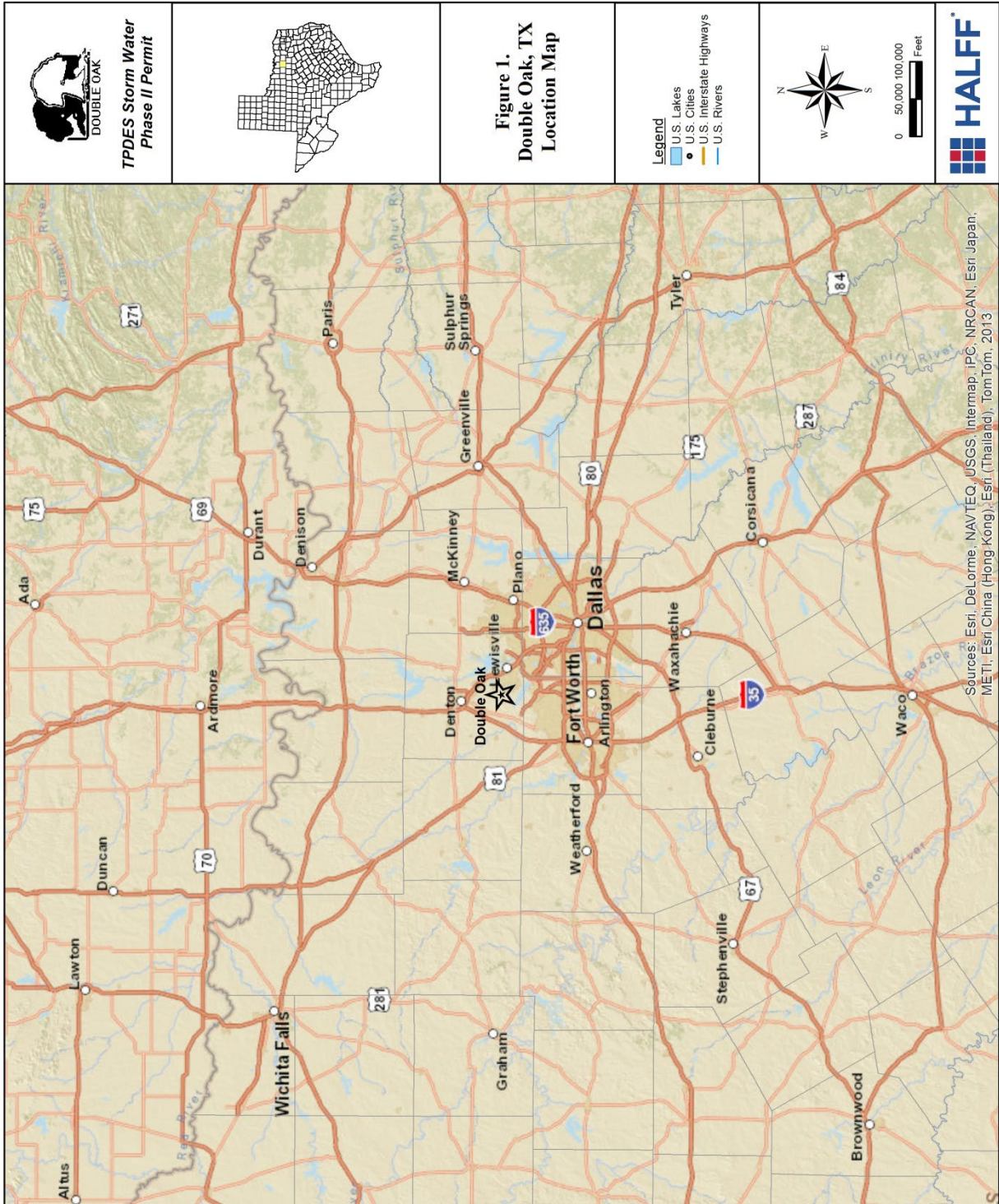
- c) A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting year,
- d) And any changes to the SWMP, as assessed to keep the Town of Double Oak in compliance with the general permit conditions.

The Town of Double Oak does not have enough employees to perform municipal public works. All public works improvements are contracted out.

The Town of Double Oak MS4 annual reporting year shall be **Calendar Year**, which the reporting year will end on December 31st and Annual report will be submitted to TCEQ by March 31st (90 days of Calendar Year),

2.5 Recordkeeping and Tracking

In accordance with the general permit TXR040000, Part IV, Section A, the Town of Double Oak will retain all records, a copy of the TPDES general permit, and records of all data used to complete the application (NOI) for the general permit, and satisfy the public participation requirements, for a minimum of three years or for the remainder of term of this general permit, whichever is longer, and make this information available to the public if requested to do so in writing within 10 working days of the request.



3.0 TOWN OF DOUBLE OAK STORMWATER MANAGEMENT PROGRAM

This section recommends specific methods to implement during the next five years in order to develop stormwater management programs that match community priorities and also enable the Town to comply with the TCEQ General Permit as an operator of a small MS4.

3.1 Introduction

The Town of Double Oak's Stormwater Management Program must address the five MCMs outlined in TCEQ's General Permit TXR040000 for small municipal separate storm sewer systems (MS4s). As stated in Section 1, each MCM has permit requirements; actions that the Town needs to take to maintain compliance with the TPDES General Permit.

The BMPs presented herein have been proposed because they are appropriate for the Town of Double Oak's stormwater system. The BMPs are considered measurable, are anticipated to provide significant benefits in the Town's stormwater quality, and are achievable. Many of these BMPs build upon efforts initiated by the Town as part of the previous SWMP. The Town is committed to a proactive approach to stormwater management for the community's health and to be good environmental stewards. Based on the General Permit's requirements and recommendations, the following recommended actions are categorized by the five (5) Phase II Minimum Control Measures.

3.2 MCM1 Public Education, Outreach, and Involvement

Public education, outreach, and involvement are an important MCM. This MCM can be accomplished in a number of different ways, most of which are already established and/or accessible. In the past, the Town has found that online publications were an effective way to reach the Town's residents.

The Town of Double Oak recognizes the benefits of direct involvement in the Town's stormwater program by members of the public. The Town involves its residents by obtaining feedback from them in a number of established committees, including on-line communication, and public meetings.

Public involvement differs from public education in that it not only informs the public, but also provides opportunities for direct citizen action. When citizens participate in a project's decision-making process, they are more likely to support the final outcome. This plan describes ways in which the community can play an active role in developing and implementing the Town's stormwater management program. An informed and involved public can be a valuable information resource and can help build compliance with the program. The public involvement and participation program is also a requirement of the TPDES program and EPA NPDES Phase II Final Rule.

General Permit Requirements:

(a) *Public Education and Outreach*

- (1) *All permittees shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.*
Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. The program must, at a minimum:
 - a. *Define the goals and objectives of the program based on high priority community-wide issues (for example, reduction of nitrogen in discharges from the small MS4, promoting previous techniques used in the small MS4, or improving the quality of discharges to the Edwards Aquifer);*
 - b. *Identify the target audience(s);*
 - c. *Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;*
 - d. *Determine cost effective and practical methods and procedures for distribution of materials.*
- (2) *Throughout the permit term, all permittees shall make the educational materials available to convey the program's message to the target audience(s) at least annually.*
- (3) *If the permittee has a public website, the permittee shall post its SWMP and the annual reports required under Part IV.B.2. or a summary of the annual report on the permittee's website. The SWMP must be posted no later than 30 days after the approval date, and the annual report no later than 30 days after the due date.*
- (4) *All permittees shall annually review and update the SWMP and MCM implementation procedures required by Part III.A.2, as necessary. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.*

(5) MS4 operators may partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.

(b) Public Involvement


All permittees shall involve the public, and, at minimum, comply with any state and local public notice requirements in the planning and implementation activities related to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. At a minimum, all permittees shall:

(1) Consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;

(2) Create opportunities for citizens to participate in the implementation of control measures, such as stream clean-ups, storm drain stenciling, volunteer monitoring, volunteer "Adopt-A-Highway" programs, and educational activities;

(3) Ensure the public can easily find information about the SWMP

BMP #1	MINIMUM CONTROL MEASURE NO. 1 Public Education and Outreach	
-----------------------------	--	---

Distribute Stormwater Educational Materials

Activity

Distribute stormwater educational materials to relevant sectors of the community as required by the Small MS4 General Permit.

Objective

Educate public employees; businesses; and general public about stormwater pollution-potential of common activities and hazards associated with illegal discharges and improper disposal of waste. Provide community clear guidance on steps and specific actions that they can take to reduce the potential for Stormwater pollution.

Responsible Position

Town Secretary

Work Actions

- i. Distribute materials to relevant community sector by placing information on Town's website (<https://double-oak.com/departments/public-works/stormwater/>).

Annual Reporting Documentation

Discussion of material developed and posted; date made available; number of times material was accessed; general nature of messages on printed materials; date on which materials were first made available.

Document Retention

Documentation of date on which materials are procured; date on which materials were first available; copy of materials distributed, method of distributing materials; and location on website.

Action Items with Measurable Goals and Schedules

Year 1- No Action. Current educational material will remain on Town's website.

Year 2 – Research Stormwater education material targeting public employees, businesses, and the general public. One document will be provided for each target audience.


Year 3 through 5-

- a. Distribute stormwater educational materials targeted towards public employees. Educational materials will be posted to the Town's website.
- b. Distribute stormwater educational materials targeted towards businesses. Educational materials will be posted to the Town's website.
- c. Distribute stormwater educational materials targeted toward the general public. Educational materials will be posted to the Town's website and one article per year will be included in the Town's publications.
- d. Track website hits annually.

Helpful Suggestions

The EPA, and TCEQ, have stormwater educational information available for municipalities to use with minor modifications. Also, to reduce costs and resource commitments, it is possible to develop materials with other local Phase II MS4's or NCTOG municipalities and share printing and distribution costs.

To meet permit requirements, ensure message targets specific areas of concern, for example consider targeting the stormwater pollution-potential of over fertilizing yards and proper disposal of waste for residences and visitors.

BMP #2	MINIMUM CONTROL MEASURE NO. 1 Public Education and Outreach	 DOUBLE OAK
-----------------------------	--	---

Post SWMP and Annual Reports to Town Website

Activity

Post the SWMP and Annual Reports to the Town Website and provide contact information.

Objective

Provide public access to the SWMP and Annual Reports and obtain public feedback.

Responsible Position

Information Technology Manager and Town Secretary

Work Actions

- i. Upload SWMP and Annual Reports to Town Website within 30 days of approval date and within 30 of due date, respectively.
- ii. Receive and respond to e-mail comments or questions from public.

Annual Reporting Documentation

Links to documents, with beginning dates and dates of any modifications. Description of the number of e-mails received from public and number of hits on webpage.

Documentation Requirements

Date on which SWMP and Annual Reports are made available; links to documents; number of webpage hits.

Action Items with Measurable Goals and Schedules


Year 1- Post SWMP to Town website and maintain on webpage continuously until end of permit term.

Year 2 through 5- Post each Annual Report as it is available and maintain on webpage continuously until end of permit term.

Year 1 through 5– Respond to email comments or questions from public

Helpful Suggestions

The Stormwater website may be an efficient mechanism to publicly display NOI and SWMP as mandated by the MS4 General Permit. Promotion of website could be done on water bill in newspaper articles.

BMP #3	MINIMUM CONTROL MEASURE NO. 1 Public Education and Outreach	 DOUBLE OAK
-----------------------------	--	---

Volunteer Cleanup Activities

Activity

Facilitate river and stormwater volunteer cleanups.

Objective

Involve businesses, public employees and local citizens in hands-on cleanup of Double Oak's stormwater system.

Responsible Position

Town Secretary

Work Actions

- i. The Town will organize collection location for volunteer efforts to clean up vegetation debris, hazardous material and trash in the creeks or that could end up in local creeks and streams.

Annual Reporting Documentation

Discussion of cleanup, including publicity Town materials, number of participants, volume/weight of debris cleaned, and general results.

Document Retention

Documentation of publicity materials, and quantify participation (amount of material collected or number of volunteers).

Action Items with Measurable Goals and Schedules

Year 1 through 5 - The Town will organize collection location for volunteer efforts to clean up debris and trash in the creeks or that could end up in local creeks and streams. The Town will organize one event per year.

3.3 MCM2 Illicit Discharge Detection and Elimination

The Town of Double Oak recognizes the potential for illicit discharges to the Town's stormwater system and is committed to addressing these discharges. The BMPs in this section are targeted toward known and potential illicit discharges.

Non-stormwater discharges will be addressed on a case-by-case basis. Allowable non-stormwater discharges, as identified in Part II. C of the TPDES General Permit, are not required to be addressed by the minimum control measures unless they are determined by the Town or TCEQ to be significant contributors of pollutants to the small MS4. **The town of Double Oak will not be sampling stormwater unless illicit discharges are identified.**

General Permit Requirements

(a) *Program Development*

- (1) *All permittees shall develop, implement, and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non-stormwater discharges, including illegal dumping to the MS4 system.*

Existing permittees must assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. (See also Part III.A.1(c).

The Illicit Discharge Detection and Elimination (IDDE) program must include the following:

- a. An up-to-date MS4 map (see Part III.B.2.(c)(1));*
 - b. Methods for informing and training MS4 field staff (See Part III.B.2.(c)(2));*
 - c. Procedures for tracing the source of an illicit discharge (see Part III.B.2.(c)(5));*
 - d. Procedures for removing the source of the illicit discharge (see Part III.B.2.(c)(5));*
 - e. For Level 2, 3 and 4 small MS4s, if applicable, procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4;*
- (2) *For non-traditional small MS4s, if illicit connections or illicit discharges are observed related to another operator's MS4, the permittee shall notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittee shall notify the appropriate TCEQ regional office of the possible illicit connection.*
- (3) *If another MS4 operator notifies the permittee of an illegal connection or illicit discharge to the small MS4, then the permittee shall follow the requirements specified in Part III.B.2.(c)(3).*
- (4) *All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.*

(b) *Allowable Non-Stormwater Discharges*

Non-stormwater flows listed in Part II.C do not need to be considered by the permittee as an illicit discharge requiring elimination unless the permittee or the TCEQ identifies the flow as a significant source of pollutants to the small MS4.

(c) *Requirements for all Permittees*

All permittees shall include the requirements described below in Parts III.B.2(c)(1)-(6)

(1) *MS4 mapping*

All permittees shall maintain an up-to-date MS4 map, which must be located on site and available for review by the TCEQ. The MS4 map must show at a minimum the following information:

- a. The location of all small MS4 outfalls that are operated by the permittee and that discharge into waters of the U.S.;*
 - b. The location and name of all surface waters receiving discharges from the small MS4 outfalls;*
 - c. Priority areas identified under Part III.B.2.(e)(1) if applicable.*
- (2) *Education and Training*

All permittees shall implement a method for informing or training all the permittee's field staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small

- MS4 as part of their normal job responsibilities. Training program materials and attendance lists must be maintained on site and made available for review by the TCEQ.*
- (3) *Public Reporting of Illicit Discharges and Spills*
All permittees shall publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4. The permittee shall provide a central contact point to receive reports; for example, by including a phone number for complaints and spill reporting.
 - (4) *All permittees shall develop and maintain on site procedures for responding to illicit discharges and spills.*
 - (5) *Source Investigation and Elimination*
 - a. *Minimum Investigation Requirements – Upon becoming aware of an illicit discharge, all permittees shall conduct an investigation to identify and locate the source of such illicit discharge as soon as practicable.*
 - (i) *All permittees shall prioritize the investigation of discharges based on their relative risk of pollution. For example, sanitary sewage may be considered a high priority discharge.*
 - (ii) *All permittees shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment.*
 - (iii) *All permittees shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.*
 - b. *Identification and Investigation of the Source of the Illicit Discharge –All permittees shall investigate and document the source of illicit discharges where the permittees have jurisdiction to complete such an investigation. If the source of illicit discharge extends outside the permittee’s boundary, all permittees shall notify the adjacent permitted MS4 operator or TCEQ’s Field Operation Support Division according to Part III.A.3.b.*
 - c. *Corrective Action to Eliminate Illicit Discharge*
 - (i) *If and when the source of the illicit discharge has been determined, all permittees shall immediately notify the responsible party of the problem and shall require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.*
 - (6) *Inspections – The permittee shall conduct inspections, in response to complaints, and shall conduct follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party. The permittee shall develop written procedures describing the basis for conducting inspections in response to complaints and conducting follow-up inspections.*

BMP #1	MINIMUM CONTROL MEASURE NO. 2 Illicit Discharge Detection and Elimination	 DOUBLE OAK
-----------------------------	--	---

Enforce Town Ordinance and Procedures to Prohibit and Remove Illicit Discharges

Activity

Update as necessary and enforce Town of Double Oak ordinance that prohibits non-stormwater discharges to the Town stormwater system, include exceptions for allowable non-stormwater discharges as identified in Part II.C or Part VI.B of the General Permit.

Continue to implement enforcement procedures for removing the source of illicit discharges in a timely manner.

Objective

Regulate and enforce procedures to prohibit and remove illicit discharges.

Responsible Position

Town Secretary

Work Actions

- i. Review current illicit discharge ordinance and procedures to trace and remove the source of illicit discharges. Develop and maintain on-site procedures for responding to illicit discharges and spills.
- ii. Continue to implement and update as necessary the Town ordinance prohibiting non-stormwater discharges to the MS4, including exceptions for allowable non-stormwater discharges as identified in Part II.C or Part VI.B of the General Permit;
- iii. Implement enforcement procedures for removing illicit discharges. Implementation enforcement may include clean up, penalties, and criminal action against violators.
- iv. Provide a point of contact to receive reports of illicit discharge.

Annual Report Documentation

Copy of current ordinance; description of any revisions to the ordinance and enforcement procedures; ordinance and enforcement procedures revision dates.

Document Retention

Procedures for responding to illicit discharges and spills. If necessary, copies of meeting agendas and minutes for meetings at which ordinance and enforcement procedures revisions were discussed; copies of all correspondence related to ordinance and enforcement procedure revisions, including e-mails, and letters.

Action Items with Measurable Goals and Schedules

Year 1- No action.

Year 2- Review current ordinance and procedures.

Year 3- Prepare draft ordinance, if necessary.

Year 4- Adopt revised ordinance, if necessary.

Year 5 – Enforce current/revised ordinance and procedures.

Year 1 through 5 – Provide point of contact to receive reports of illicit discharge. Upon report of illicit discharge, Town Administrator will notify Town Inspector of discharge. Town Inspector will investigate and take appropriate action.

<p>Helpful Suggestions</p>	<p>The EPA has example model Town ordinances available to develop language adequate to meet the General Permit requirements.</p>
-----------------------------------	--

BMP #2	MINIMUM CONTROL MEASURE NO. 2 Illicit Discharge Detection and Elimination	 DOUBLE OAK
-----------------------------	--	---

Visual Inspection of Selected Stormwater Outfalls During Dry Weather

Activity

Perform dry weather screening of selected stormwater outfalls to determine the existence of illicit discharges performed during site inspection or per public input/complaints. If necessary, determine source of suspected illicit discharge and report to Town's enforcement mechanism for elimination of illicit discharge.

Objective

Develop program to Identify and remove potential illicit discharges to Double Oak's stormwater system.

Responsible Position

Town Engineer and Town Inspector

Work Actions

- i. Continue to implement inspection procedures, including illicit discharge reporting procedures, for Town staff to perform storm water outfall dry weather inspections;
- ii. The Town Engineer or Inspector shall visually inspect stormwater outfalls during dry weather to check for possible illicit discharges and document observations in an annual basis;
- iii. Develop procedure for reporting any discovered illicit discharge to enforcement body for removal.
- iv. Utilize the existing Dry weather inspection, including: Date, Locations Inspected, Temperature, Weather, and Note Discharge from the location inspection stating the source, color, and action.

Document Retention

Written report of inspection including date, time, and description of any observed discharges; actions taken if suspected illicit discharge is detected; and photographs.

Action Items with Measurable Goals and Schedules

Year 1 through 5- Continue to implement dry weather screening program on an annual basis and upon public complaints/notification. Twenty percent (20%) of the Town's storm water outfalls will be inspected each year.

Year 2- Research other municipality procedures for reporting any discovered illicit discharge to enforcement body for removal.

Year 3- Draft procedures for reporting any discovered illicit discharge to enforcement body for removal.

Year 4 through 5- Implement procedures for reporting any discovered illicit discharge to enforcement body for removal.

BMP #3	MINIMUM CONTROL MEASURE NO. 2 Illicit Discharge Detection and Elimination	 DOUBLE OAK
-----------------------------	--	---

Update Storm Sewer Map Showing All Outfalls and Names of Waters of the United States

Activity

Maintain a Double Oak storm sewer map showing all outfalls and names of Waters of the United States.

Objective

Maintain a complete and current map of all stormwater facilities in Double Oak to demonstrate a basic awareness of the intake and discharge areas of the system.

Responsible Position

Town Engineer

Work Actions

- i. Compile records of any changes to the stormwater facilities in Double Oak;
- ii. Review data and field verify if necessary; and
- iii. Update paper and electronic versions of outfall maps.

Annual Reporting Documentation

Discussion of compilation of map data, field verification process, and generation of map.

Document Retention

Stormwater outfall location map with receiving waters, updated annually.

Action Items with Measurable Goals and Schedules

Years 1 through 5- Update electronic and paper stormwater outfall location map with receiving waters. Maintain current map until end of permit term. Maps will be reviewed and updated each year.

Helpful Suggestions	A paper and electronic USGS quadrangle map showing outfall locations is a simple solution to meeting the General Permit requirements.
----------------------------	---

BMP #4	MINIMUM CONTROL MEASURE NO. 2 Illicit Discharge Detection and Elimination	 DOUBLE OAK
-----------------------------	--	---

Educate or Train Field Staff That May Observe an Illicit Discharge

Activity

Educate Field Staff about illicit discharges to the MS4.

Objective: To inform Field Staff about the hazards of illegal discharges to the stormwater system.

Responsible Position

Town Engineer

Work Actions

- i. Develop and/ or procure educational materials discussing the stormwater hazards of illicit discharges; and
- ii. Distribute materials to Field Staff.

Annual Reporting Documentation

Discussion of development or procurement of materials; and attendance/distribution lists.

Document Retention

Written documentation of materials developed or procured; and attendance/distribution lists.

Action Items with Measurable Goals and Schedule

Year 1- No action

Year 2 – Determine best method to Train Field Staff

Year 3 - Research Public Education/Training Material

Year 4 – Implement method for informing or training Field Staff

Year 5 – Educate/Train Field Staff. Education/training material will be provided for new Field Staff once per year.

Helpful Suggestions

The EPA and TCEQ have stormwater educational information available for municipalities to use with minor modifications. Also, to reduce costs and resource commitments, it is possible to develop materials with other local Phase II MS4's or NCTOG municipalities and share printing and distribution costs.

3.4 MCM3 Construction Site Runoff Controls

In the absence of proper management, construction sites can release significant amounts of sediment into stormwater and eventually into a municipality's stormwater drainage system. Other construction site activities such as storage and handling of construction materials also can release pollutants into the storm drain system. In addition, increases in compaction and impervious surfaces at construction sites impact stormwater. The fact that construction and construction-related activities are occurring in the metropolitan area is cause to evaluate the methods and procedures currently in place to address stormwater runoff. Pollutants from construction sites that may impact stormwater runoff include sediment, solid and sanitary wastes, fertilizer, pesticides, oil and grease, truck washout debris, and construction debris.

The Town of Double Oak currently has institutional controls related to stormwater at construction sites. The continued implementation and enforcement of these stormwater runoff controls will be an important element in Double Oak's Stormwater Management Program. **The town of Double Oak will not be sampling the stormwater during the permit period.**

General Permit Requirements:

(a) *Requirements and Control Measures*

- (1) *All permittees shall develop, implement and enforce a program requiring operators of small and large construction activities, as defined in Part I of this general permit, to select, install, implement, and maintain stormwater control measures that prevent illicit discharges to the MEP. The program must include the development and implementation of an ordinance or other regulatory mechanism, as well as sanctions to ensure compliance to the extent allowable under state, federal, and local law, to require erosion and sediment control.*

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term.

If TCEQ waives requirements for stormwater discharges associated with small construction from a specific site(s), the permittee is not required to enforce the program to reduce pollutant discharges from such site(s).

(b) *Requirements for all Permittees*

All permittees shall include the requirements described below in Parts III.B.3 (b)(1)-(7)

- (1) *All permittees shall annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be included in the annual report. Such written procedures must be maintained on site or in the SWMP and made available for inspection by the TCEQ.*
- (2) *All permittees shall require that construction site operators implement appropriate erosion and sediment control BMPs. The permittee's construction program must ensure the following minimum requirements are effectively implemented for all small and large construction activities discharging to its small MS4.*
- a. Erosion and Sediment Controls - Design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants.*
 - b. Soil Stabilization - Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures. In arid, semiarid, and drought-stricken areas, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed.*

The permittee shall develop written procedures that describe initiating and completing stabilization measures for construction sites.

- c. BMPs – Design, install, implement, and maintain effective BMPs to minimize the discharge of pollutants to the small MS4. At a minimum, such BMPs must be designed, installed, implemented and maintained to:
 - (i) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters;*
 - (ii) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and*
 - (iii) Minimize the discharge of pollutants from spills and leaks.**
 - d. As an alternative to (a) through (c) above, all permittees shall ensure that all small and large construction activities discharging to the small MS4 have developed and implemented a stormwater pollution prevention plan (SWP3) in accordance with the TPDES CGP TXR150000. In arid, semiarid, and drought-stricken areas, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed and described in the written procedure required in item (2)b. above. As an alternative, vegetative stabilization measures may be implemented as soon as practicable.*
- (3) Prohibited Discharges - The following discharges are prohibited:*
- a. Wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control;*
 - b. Wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials;*
 - c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and,*
 - d. Soaps or solvents used in vehicle and equipment washing;*
 - e. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs.*
- (4) Construction Plan Review Procedures*
To the extent allowable by state, federal, and local law, all permittees shall maintain and implement site plan review procedures that describe which plans will be reviewed as well as when an operator may begin construction. For those permittees without legal authority to enforce site plan reviews, this requirement is limited to those sites operated by the permittee and its contractors and located within the permittee's regulated area. The site plan procedures must meet the following minimum requirements:
- a. The site plan review procedures must incorporate consideration of potential water quality impacts.*
 - b. The permittee may not approve any plans unless the plans contain appropriate site specific construction site control measures that, at a minimum, meet the requirements described in Part III.B.3.(a) or in the TPDES CGP, TXR150000.*
- The permittee may require and accept a plan, such as a SWP3, that has been developed pursuant to the CGP, TXR150000.*
- (5) Construction Site Inspections and Enforcement*
To the extent allowable by state, federal, and local law, all permittees shall implement procedures for inspecting large and small construction projects. Permittees without legal authority to inspect construction sites shall at a minimum conduct inspections of sites operated by the permittee or its contractors and that are located in the permittee's regulated area.
- a. The permittee shall conduct inspections based on the evaluation of factors that are a threat to water quality, such as: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-stormwater discharges; and past record of non-compliance by the operators of the construction site.*
 - b. Inspections must occur during the active construction phase.
 - (i) All permittees shall develop and implement updated written procedures outlining the inspection and enforcement requirements. These procedures must be maintained on site or in the SWMP and be made available to TCEQ.*
 - (ii) Inspections of construction sites must, at a minimum:**

1. *Determine whether the site has appropriate coverage under the TPDES CGP, TXR150000. If no coverage exists, notify the permittee of the need for permit coverage.*
 2. *Conduct a site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the small MS4's requirements.*
 3. *Assess compliance with the permittee's ordinances and other regulations.*
 4. *Provide a written or electronic inspection report.*
- c. *Based on site inspection findings, all permittees shall take all necessary follow up actions (for example, follow-up-inspections or enforcement) to ensure compliance with permit requirements and the SWMP. These follow-up and enforcement actions must be tracked and maintained for review by the TCEQ.*
For non-traditional small MS4s with no enforcement powers, the permittee shall notify the adjacent MS4 operator with enforcement authority or the TCEQ's Field Operations Support Division according to Part III.A.3(b).
- (6) *Information submitted by the Public*
All permittees shall develop, implement and maintain procedures for receipt and consideration of information submitted by the public.
- (7) *MS4 Staff Training*
All permittees shall ensure that all staff whose primary job duties are related to implementing the construction stormwater program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to conduct these activities. The training may be conducted by the permittee or by outside trainers.

BMP #1	MINIMUM CONTROL MEASURE NO. 3 Construction Site Runoff Controls	
-----------------------------	--	---

Implement and Maintain Double Oak Town Ordinance and Enforcement Mechanism to Require Erosion and Sediment Controls at Construction Sites > 1 Acre

Activity

Continue to implement and maintain a Town ordinance and enforcement mechanism (including sanctions) to require waste, erosion, and sediment controls at construction sites that disturb one acre or more. Ordinance must address illicit discharges such as wash out wastewater, fuels, oils, soaps, solvents, and dewatering activities.

Objective

To regulate and control waste, erosion, and sedimentation from construction sites within the Town of Double Oak.

Responsible Position

Town Secretary

Work Actions

- i. Continue to implement and revise as necessary the Town ordinance requiring waste, erosion, and sediment controls at construction sites ≥ 1 acre; and
- ii. Continue to enforce the requirements of waste, erosion, and sediment controls at construction sites ≥ 1 acre.

Annual Reporting Documentation

Discussion any revisions of ordinance and enforcement mechanism; copy of ordinance and enforcement policy and procedures; discussion of any important issues related to ordinance.

Document Retention

Written minutes of relevant Town Council meetings if the ordinance is revised; copies of agendas; copies of correspondence, including e-mails, letters, memos, and phone conversations.

Action Items with Measurable Goals and Schedule

Year 1- Enforce current ordinance.

Year 2- Review current ordinances.

Year 3- Submit draft of ordinance revisions.

Year 4- Implement and update as necessary the final ordinance.

Year 5- Enforcement updated ordinance until end of permit term.

**Helpful
Suggestions**

The EPA has example model Town ordinances available to develop language adequate to meet the General Permit requirements.

BMP #2	MINIMUM CONTROL MEASURE NO. 3 Construction Site Runoff Controls	 DOUBLE OAK
-----------------------------	--	---

Require Submittal of Construction Site SWPPP for Review by Town Staff

Activity

Continue to require contractors to submit TCEQ approved Construction SWPPP for Town review.

Objective: Incorporate site plan review with considerations of water quality impacts

Responsible Position

Town Secretary and Town Engineer

Work Actions

- i. Continue to implement policy and ordinance that requires contractors to submit TCEQ approved Construction SWPPP;
- ii. Provide construction plan checklist for Town site plan reviewers which has a specific item requiring submittal of Construction SWPPP; and
- iii. Review of all Submitted Construction SWPPP's for compliance with Town ordinance. Ensure that SWPPPs include temporary controls for waste, sediment, and erosion, as well as controls for allowable non-stormwater discharges and post-construction stormwater controls.

Annual Reporting Documentation

Discussion of policy updates, discussion of construction plan checklist revisions and any changes made to ensure compliance with erosion and sediment control ordinance.

Document Retention

Documentation of checklist.

Action Items with Measurable Goals and Schedules

Year 1 through 4- Review construction plans with current check list.

Year 2- Review construction plan checklist

Year 3- Submit draft construction plan checklist with proposed revisions, if necessary.

Year 4- Implement and update as necessary the new construction site plan review checklist that considers potential impacts of water quality.

Year 5- Continue review of all Construction SWPPPs to ensure compliance with Town ordinance until end of permit term.

BMP #3	MINIMUM CONTROL MEASURE NO. 3 Construction Site Runoff Controls	 DOUBLE OAK
-----------------------------	--	---

Implement Procedures for Construction Site Inspection of Runoff Controls

Activity

Review and revise, as necessary, the stormwater runoff inspection procedures for Town inspectors to follow at construction sites.

Objective

Reduce stormwater pollution-potential from construction sites.

Responsible Position

Town Secretary and Town Engineer

Work Actions

- i. Implement and revise, as necessary, the procedures for construction site inspections for proper waste, erosion, and sediment controls. Ensure controls documented in SWPPP are in-place.

Annual Reporting Documentation

Discussion of any revisions, if necessary, of the inspection procedures, including dates and nature of procedures finalized.

Document Retention

Documentation regarding revision, if necessary, of construction runoff control inspection procedures; including copies of relevant correspondence, including letters, e-mails, memos, and phone conversations.

Action Item with Measurable Goal and Schedule

- Year 1- Inspect construction site per current procedures.
- Year 2- Research other municipality inspection procedures and forms, if necessary.
- Year 3- Review and revise the construction site inspection procedures, if necessary.
- Year 4 and 5- Implement revised construction site inspection procedures.

BMP #4	MINIMUM CONTROL MEASURE NO. 3 Construction Site Runoff Controls	 DOUBLE OAK
-----------------------------	--	---

Train Town Inspectors in Conducting Proper Site Inspections

Activity

Train Town inspectors in procedures for ensuring construction site has required stormwater runoff controls.

Objective

Reduce stormwater pollution-potential from construction sites.

Responsible Position

Town Engineer

Responsible Position

Executive Director of Community and Public Works

Work Actions

- i. Develop training materials for construction site inspections;
- ii. Perform Town inspectors training on proper waste, erosion, and sediment controls at construction sites; and
- iii. Have Town inspectors implement inspection procedures during construction site inspections.

Annual Reporting Documentation

Discussion of inspection training, including dates, materials, and nature of training.

Document Retention

Documentation of training program, including copies of any materials distributed during training; and attendees.

Action Item with Measurable Goal and Schedule

Year 1 – Inspect construction site per current procedure

Year 2 – Research education material

Year 3 through 5 – Train Town inspectors in procedures for ensuring construction site has required stormwater runoff controls. Inspectors will be trained every three years.

BMP #5	MINIMUM CONTROL MEASURE NO. 3 Construction Site Runoff Controls	 DOUBLE OAK
-----------------------------	--	---

Implement Mechanism for Contractor and Public Comment and Procedures for Comment Consideration in Regards to Construction Site Runoff Controls

Activity

Provide mechanisms for commenting and review of comments. Determine if incorporation of comment(s) is in the common interest of the Town and Public.

Objective

Ensure construction contractors and public have a mechanism to communicate concerns related to the construction site runoff controls with the Town.

Responsible Position

Town Secretary

Work Actions

- i. Continue to operate construction stormwater controls email for receiving comments from construction contractors and public; and
- ii. Solicit and receive verbal and/or written input from contractors and public;
- iii. Address feedback or comments received.

Annual Reporting Documentation

Document where contact information is displayed, and any comments received.

Document Retention

Documentation any comments received, and responses given.

Action Items with Measurable Goals and Schedules

Year 1 through 5- Maintain email where the public can provide input regarding construction site environmental concerns.

3.5 MCM4 Post-Construction Stormwater Management in New Development and Redevelopment

There generally are two forms of substantial impacts from post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants become suspended in stormwater runoff and have the ability to impact the food chain and eventually impact humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the receiving water body during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. This can result in scouring of natural drainage pathways and flooding of areas resulting in property damage.

General Permit Requirements:

- (a) *Post-Construction Stormwater Management Program*
- (1) *All permittees shall develop, implement and enforce a program, to the extent allowable under state, federal, and local law, to control stormwater discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites. The program may utilize an offsite mitigation and payment in lieu of components to address this requirement.
Existing permittees shall assess program elements that were described in the previous permit and modify as necessary to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of the permit term.*
 - (2) *All permittees shall use, to the extent allowable under state, federal, and local law and local development standards, an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects. The permittees shall establish, implement, and enforce a requirement that owners or operators of new development and redeveloped sites design, install, implement, and maintain a combination of structural and non-structural BMPs appropriate for the community and that protects water quality. If the construction of permanent structures is not feasible due to space limitations, health and safety concerns, cost effectiveness, or highway construction codes, the permittee may propose an alternative approach to TCEQ. Newly regulated permittees shall have the program element fully implemented by the end of the permit term.*
- (b) *Requirements for all Permittees*
All permittees shall include the requirements described below in Parts III.B.4.(b)(1)-(3)
- (1) *All permittees shall annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be included in the annual report. Such written procedures must be maintained either on site or in the SWMP and made available for inspection by TCEQ.*
 - (2) *All permittees shall document and maintain records of enforcement actions and make them available for review by the TCEQ.*
 - (3) *Long-Term Maintenance of Post-Construction Stormwater Control Measures*
All permittees shall, to the extent allowable under state, federal, and local law, ensure the long-term operation and maintenance of structural stormwater control measures installed through one or both of the following approaches:
 - a. *Maintenance performed by the permittee. See Part III.B.5*

b. Maintenance performed by the owner or operator of a new development or redeveloped site under a maintenance plan. The maintenance plan must be filed in the real property records of the county in which the property is located. The permittee shall require the owner or operator of any new development or redeveloped site to develop and implement a maintenance plan addressing maintenance requirement for any structural control measures installed on site. The permittee shall require operation and maintenance performed is documented and retained on site, such as at the offices of the owner or operator and made available for review by the small MS4.

BMP #1	MINIMUM CONTROL MEASURE NO. 4 Post Construction Stormwater Management in New Development and Redevelopment	 DOUBLE OAK
-----------------------------	---	---

Enforce Requirement of Post Construction Stormwater Management in New Development and Redevelopment Sites > 1 Acre

Activity

Develop/maintain an enforcement mechanism to require New Development and Redevelopment sites that disturb one acre or more to have post construction stormwater management.

Objective

To regulate new development and redevelopment Post Construction Storm Water Management within the Town of Double Oak.

Responsible Position

Town Secretary

Work Actions

- i. Continue to implement and revise as necessary the Town Post Construction Stormwater Management Ordinance for new development and redevelopment sites \geq 1 acre. The ordinance will include sites that are less than 1 acre if they are part of a larger or phased development.
- ii. The Post Construction Stormwater Management will be enforced during the platting and permitting process;
- iii. The Town ordinance currently requires stormwater management for volume and velocity for new developments to reduce stormwater pollution. The town is a bedroom community and it is nearly built out (approximately 90% built out).
- iv. The ordinance shall establish the maintenance responsibilities for the Post Construction Stormwater management structure and non-structure BMPs. Currently the Post Construction Storm Management structures and non-structure BMPs are maintained by private owners and HOAs. The town does not own or maintain any Post Construction Storm Water Management BMPs.

Annual Reporting Documentation

Discussion of any revisions to ordinance and enforcement mechanism; copy of ordinance and enforcement policy and procedures; discussion of any important issues related to ordinance. Documentation of any enforcement actions.

Document Retention


Written minutes of relevant Town Council meetings if the ordinance is revised; copies of agendas; copies of correspondence, including e-mails, letters, and memos.

Action Items with Measurable Goals and Schedule

Year 1 through 5- Maintain enforcement mechanism and revise, if necessary.
Document any enforcement actions.

**Helpful
Suggestions**

The EPA has example model Town ordinances available to develop language adequate to meet the General Permit requirements.

BMP #2	MINIMUM CONTROL MEASURE NO. 4 Post Construction Stormwater Management in New Development and Redevelopment	 DOUBLE OAK
-----------------------------	---	---

Require Long-Term Maintenance of Post-Construction Stormwater Control Measures

Activity

Ensure the long-term operation and maintenance of structural stormwater control measures.

Objective

Require the owner or operator of any new development or redevelopment to develop and implement a maintenance plan addressing maintenance for any structural control measures on site. Plan must be filed in the real property records of the County. Require documentation of any operation and maintenance performed be retained on site.

Responsible Position

Town Secretary and Town Engineer

Work Actions

- i. Draft ordinance requiring long-term operation and maintenance of structural stormwater control measures be performed by the owner or operator of a new development or redeveloped site. Ensure maintenance plan be filed in the real property records of the County. Ensure maintenance performed is documented, retained on site, and made available for review.
- ii. Adopt ordinance.
- iii. Implement ordinance

Annual Reporting Documentation

Discussion of ordinance and enforcement mechanism; copy of ordinance and enforcement policy and procedures; discussion of any important issues related to ordinance.

Document Retention

Written minutes of relevant Town Council meetings; copies of agendas; copies of correspondence.

Action Items with Measurable Goals and Schedules

Year 1- No Action

Year 2- Research other municipality ordinances requiring long-term operation and maintenance of structural stormwater control measures.

Year 3- Draft ordinance requiring long-term operation and maintenance of structural stormwater control measures.

Year 4- Adopt ordinance.

Year 5- Implement ordinance

3.6 MCM5 Pollution Prevention/Good Housekeeping for Municipal Operations

The Town of Double Oak recognizes that any Stormwater Management Program requires good housekeeping and pollution prevention to be successful.

The Town of Double Oak does not own or operate municipal parks, fleet maintenance service facility, or public works storage yard. The town hall is the only property owned by the Town.

The town contracts all public work (i.e. street maintenance, storm system maintenance). Water is provided and maintained by Cross Timber Water Supply Corporation. Good housekeeping operations will be performed at the town hall property only.

General Permit Requirements:

- (a) *Program development*
 - (1) *All permittees shall develop and implement an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal activities and municipally owned areas including but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; stormwater system maintenance; new construction and land disturbances; municipal parking lots; vehicle and equipment maintenance and storage yards; waste transfer stations; and salt/sand storage locations. Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharges of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. See also Part III.A.1.(c)*
- (b) *Requirements for all Permittees*

All permittees shall include the requirements described below in Parts III.B.5.(1)-(6) in the program:

 - (1) *Permittee-owned Facilities and Control Inventory*

All permittees shall develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the small MS4. The inventory must include all applicable permit numbers, registration numbers, and authorizations for each facility or controls. The inventory must be available for review by TCEQ and must include, but is not limited, to the following, as applicable:

 - a. *Composting facilities;*
 - b. *Equipment storage and maintenance facilities;*
 - c. *Fuel storage facilities;*
 - d. *Hazardous waste disposal facilities;*
 - e. *Hazardous waste handling and transfer facilities;*
 - f. *Incinerators;*
 - g. *Landfills;*
 - h. *Materials storage yards;*
 - i. *Pesticide storage facilities;*
 - j. *Buildings, including schools, libraries, police stations, fire stations, and office buildings;*
 - k. *Parking lots;*
 - l. *Golf courses;*
 - m. *Swimming pools;*
 - n. *Public works yards;*
 - o. *Recycling facilities;*
 - p. *Salt storage facilities;*
 - q. *Solid waste handling and transfer facilities;*
 - r. *Street repair and maintenance sites;*
 - s. *Vehicle storage and maintenance yards; and*
 - t. *Structural stormwater controls.*

- (2) *Training and Education*
All permittees shall inform or train appropriate employees involved in implementing pollution prevention and good housekeeping practices. All permittees shall maintain a training attendance list for inspection by TCEQ when requested.
- (3) *Disposal of Waste Material - Waste materials removed from the small MS4 must be disposed of in accordance with 30 TAC Chapters 330 or 335, as applicable.*
- (4) *Contractor Requirements and Oversight*
 - a. *Any contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility specific stormwater management operating procedures described in Parts III B.5.(2)-(6).*
 - b. *All permittees shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and SOPs. Oversight procedures must be maintained on site and made available for inspection by TCEQ.*
- (5) *Municipal Operation and Maintenance Activities*
 - a. *Assessment of permittee-owned operations*
All permittees shall evaluate operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater, including but not limited to:
 - (i) *Road and parking lot maintenance may include such areas as pothole repair, pavement marking, sealing, and re-paving;*
 - (ii) *Bridge maintenance may include such areas as re-chipping, grinding, and saw cutting;*
 - (iii) *Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and*
 - (iv) *Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.*
 - b. *All permittees shall identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene, toluene, ethyl benzene, and xylenes; sediment; and trash).*
 - c. *All permittees shall develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from the above activities. These pollution prevention measures may include the following examples:*
 - (i) *Replacing materials and chemicals with more environmentally benign materials or methods;*
 - (ii) *Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and*
 - (iii) *Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.*
 - d. *Inspection of pollution prevention measures - All pollution prevention measures implemented at permittee-owned facilities must be visually inspected at a frequency determined by the permittee to ensure they are working properly. The permittee shall develop written procedures that describes frequency of inspections and how they will be conducted. A log of inspections must be maintained and made available for review by the TCEQ upon request.*
- (6) *Structural Control Maintenance*
If BMPs include structural controls, maintenance of the controls must be performed at a frequency determined by the permittee and consistent with maintaining the effectiveness of the BMP. The permittee shall develop written procedures that define the frequency of inspections and how they will be conducted.

The Town only owns the town hall property, does not have a Public Works Yard and does not maintain the town owned vehicles onsite. Many of the good housekeeping BMPs shown on the permit are not applicable to the town. The following is a summary of the good housekeeping items from the permit and which are applicable:

- a. Composting facilities: Not Applicable. The Town does not own or operate a composting facility
- b. Equipment storage and maintenance facilities: Not Applicable. The town does not store or maintain equipment at the town hall property.
- c. Fuel storage facilities: Not Applicable. The town does not own a fuel storage facility.
- d. Hazardous waste disposal facilities: Not Applicable. The Town does not own hazardous waste facilities.
- e. Hazardous waste handling and transfer facilities: Not Applicable. The town has a contract with a waste management company to provide hazardous material disposal kits to their residents and limited commercial business (retail and office). The residents are provided instructions by the waste management company for handling the hazardous material, how to add materials to the disposal kit and contact information for the waste management pickup. The residents and business work directly with the waste management company and not with the town.
- f. Incinerators: Not applicable. The City does not own an incinerator
- g. Landfills: Not applicable. The Town does not own a Landfill. Garbage pickup is provided by a 3rd party waste management company. The City has a yearly collection day at the town hall parking lot for bulk material)
- h. Materials storage yards: Not applicable. The town does not own any storage yards.
- i. Pesticide storage facilities: Not applicable. The town does not own a Pesticide storage yard.
- j. Buildings, including schools, libraries, police stations, fire stations, and office: The town owns the town hall building and volunteer fire station which are in the same property. At this time there are no known sources of pollutants from these facilities. A plan will be developed for identifying pollution sources within the town hall and fire station during the permit period. The plan will include procedures to reduce discharge of pollutants into the storm system.
- k. Parking lots: The town owns the parking lot for the town hall. The water drains to ditches that act as bioswales.
- l. Golf courses: Not applicable. The town does not own any golf courses.
- m. Swimming pools: Not applicable. The town does not own any swimming pools
- n. Public works yards: Not applicable. The town does not own a public works yard.
- o. Recycling facilities: Not applicable. The town does not own a recycling facility
- p. Salt storage facilities: Not applicable. The town does not store or salts the town roads prior or after winter storms.

- q. Solid waste handling and transfer facilities: Not applicable. The town does not own any of these types of facilities.
- r. Street repair and maintenance sites: The town does not own a street repair and maintenance site. The town does not have the man power nor the equipment to perform street repairs or maintenance. All road maintenance is performed by contractors. The contractor does need to comply with same operating methods as new construction to ensure the reduction of pollutants into the storm system. The Town Inspector oversees contractor operations and ensures necessary pollution reduction BMPs are used during road repair and maintenance operations.
- s. Vehicle storage and maintenance yards: Not applicable. The town does not own a vehicle storage yard and all vehicles are maintained by mechanics offsite.
- t. Structural stormwater controls: Not applicable. The town does not own any post construction stormwater controls.

BMP #1	MINIMUM CONTROL MEASURE NO. 5 Pollution Prevention and Good Housekeeping	 DOUBLE OAK
-----------------------------	---	---

Assess Municipal Properties for Appropriate Stormwater Pollution Prevention Controls

Activity

Inspect Town operation and maintenance procedures to determine what stormwater controls are in place, and what pollution prevention controls are warranted.

Objective

To reduce pollution in Double Oak's stormwater system from municipally owned properties. The good housekeeping items that are applicable are:

- a. Buildings
- b. Parking Lot
- c. Street repair and maintenance

Responsible Position

Town Engineer and Town Inspector

Work Actions

- i. Once a year identify any potential illicit discharges, and determine if existing stormwater measures are properly maintained
- ii. Maintain field logs from inspections performed and sources of pollutants identified.

Annual Reporting Documentation

Annual inspection forms and documentation of any action taken

Document Retention

Annual inspection forms and documentation of any action taken

Action Items with Measurable Goals and Schedules

Year 1 through 5 - Conduct an inspection of one town property each year through the end of the permit.

Helpful Suggestions

The EPA has stormwater training materials available for municipalities to use with minor modifications. Also, to reduce costs and resource commitments, it is possible to develop materials and train a regional group in combination with other local Phase II MS4's to help manage costs.

BMP #2	MINIMUM CONTROL MEASURE NO. 5 Pollution Prevention and Good Housekeeping	 DOUBLE OAK
-----------------------------	---	---

Develop and Implement Procedures to Properly Dispose of Waste from the Town of Double Oak Facilities

Activity

Develop procedures to remove and properly dispose of waste.

Objective

Implement procedures to properly dispose of wastes from the Town of Double Oak facilities.

Responsible Position

Town Engineer

Work Actions

- i. Research procedures to remove and properly dispose of waste.
- ii. Develop procedures to remove and properly dispose of waste.
- iii. Implement procedures to remove and properly dispose of waste.

Annual Reporting Documentation

Procedures to properly dispose of waste.

Document Retention

Procedures to properly dispose of waste.

Action Items with Measurable Goals and Schedules

Year 1 – No action

Year 2 – Research procedures to remove and properly dispose of waste.

Year 3 - Develop procedures to remove and properly dispose of waste.

Year 4 through 5 - Implement procedures to remove and properly dispose of waste.

BMP #3	MINIMUM CONTROL MEASURE NO. 5 Pollution Prevention and Good Housekeeping	 DOUBLE OAK
-----------------------------	---	---

Develop and Implement Contractor Oversight Procedures

Activity

Develop procedures to oversee that contractors hired by Double Oak comply with operating procedures.

Objective

Implement procedures to oversee that contractors hired by Double Oak comply with operating procedures.

Responsible Position

Town Engineer

Work Actions

- i. Research procedures to oversee that contractors hired by Double Oak comply with operating procedures.
- ii. Develop procedures to oversee that contractors hired by Double Oak comply with operating procedures.
- iii. Implement procedures to oversee that contractors hired by Double Oak comply with operating procedures.

Annual Reporting Documentation

Procedures to oversee contractors.

Document Retention

Procedures to oversee contractors.

Action Items with Measurable Goals and Schedules

Year 1 – No action

Year 2 – Research procedures to oversee that contractors hired by Double Oak comply with operating procedures.

Year 3 - Develop procedures to oversee that contractors hired by Double Oak comply with operating procedures.

Year 4 through 5 - Implement procedures to oversee that contractors hired by Double Oak comply with operating procedures.

BMP #4	MINIMUM CONTROL MEASURE NO. 5 Pollution Prevention and Good Housekeeping	
-----------------------------	---	---

Train Town Staff on Implementing Pollution Prevention and Good Housekeeping Practices

Activity

Train Town Staff on the procedures to reduce pollutants from operation and maintenance procedures and street maintenance.

Objective

Train staff to reduce possible pollution during operation and maintenance procedures

Responsible Position

Town Engineer

Work Actions

- i. Train the Town Inspector on detecting possible pollutants and how to enforce the developed plan for reducing possible pollutants from operations at the town hall property and street maintenance.

Annual Reporting Documentation

Discussion of inspection training, including dates, materials, and nature of training.

Document Retention

Documentation of training program, including copies of any materials distributed during training; and attendees.

Action Items with Measurable Goals and Schedules

- i. Year 1 – No action.
- ii. Year 2 - Research education material
- iii. Year 3 through 5 – Train Town Inspector on detecting possible pollutants and how to enforce the plan for reducing possible pollutants from operations at the town hall property and street maintenance. Education/training material will be provided for new inspectors once per year.

4.0 REFERENCES

Texas Commission on Environmental Quality, TPDES General Permit No. TXR040000, General Permit to Discharge Under the Texas Pollutant Discharge Elimination System, May 2007.

North Central Texas Council of Governments, Stormwater Management Program Webpage, <http://www.nctcog.org/envir/SEEClean/Stormwater/index.asp>.

United States Environmental Protection Agency, National Pollutant Discharge Elimination System Stormwater Website, http://cfpub.epa.gov/npdes/home.cfm?program_id=6

5.0 DEFINITIONS

Best Management Practices (BMPs) - Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Clean Water Act (CWA) - The Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et. seq.

Discharge - When used without a qualifier, refers to the discharge of stormwater runoff or certain non-stormwater 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 entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency fire fighting activities.

Maximum Extent Practicable (MEP) - The technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges that was established by CWA § 402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR § 122.34.

MS4 Operator - The public entity, and/ or the entity contracted by the public entity, responsible for management and operation of the municipal separate storm sewer system that is subject to the terms of this general permit.

Notice of Change (NOC) - Written notification from the permittee to the executive director providing changes to information that was previously provided to the agency in a notice of intent.

Notice of Intent (NOI) - A written submission to the executive director from an applicant requesting coverage under the general permit.

Notice of Termination (NOT) - A written submission to the executive director from a permittee authorized under a general permit requesting termination of coverage under this general permit.

Outfall - A point source at the point where a municipal separate storm sewer discharges to surface water in the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other waters of the U.S. and are used to convey waters of the U.S.

Permittee - The MS4 operator authorized under the general permit.

Permitting Authority - For the purposes of the general permit, the TCEQ.

Point Source - (from 40 CFR § 122.22) any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant(s) of Concern - Include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from an MS4. (Definition from 40 CFR § 122.32(e)(3)).

Redevelopment - Alterations of a property that changes the “footprint” of a site or building in such a way that there is a disturbance of equal to or greater than one (1) acre of land. This term does not include such activities as exterior remodeling.

Small Construction Activity - Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, and original purpose of a ditch, channel, or other similar stormwater conveyance. Small construction activity does not include the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.

Small Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by the United States, a state, Town, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under § 208 of the CWA; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; (iv) Which is not part of a publicly owned treatment works (POTW) as defined at 40 CFR § 122.2; (v) Which was not previously authorized under a NPDES or TPDES individual permit as a medium or large municipal separate storm sewer system; and (vi) Which does not include very discrete systems such as those serving individual buildings. For the purpose of this permit, a very discreet system includes storm drains associated with municipal office and education complexes, where the complexes serve a transient (nonresidential)

population, and where the buildings are not physically interconnected to an MS4 that is also operated by that public entity.

Stormwater - Stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Associated with Construction Activity - Stormwater runoff from an area where there is either a large construction activity or a small construction activity.

Stormwater Management Program (SWMP) - A comprehensive program to manage the quality of discharges from the municipal separate storm sewer system.

Structural Control (or Practice) - A pollution prevention practice that requires the construction of a device, or the use of a device, to capture or prevent pollution in stormwater runoff. Structural controls and practices may include but are not limited to: wet ponds, bioretention, infiltration basins, stormwater wetlands, silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State - Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHWM) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Urbanized Area (UA) - An area of high population density that may include multiple MS4s as defined and used by the U.S. Census Bureau in the 2000 decennial census.

Waters of the United States - (from 40 CFR § 122.2) 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 intrastate 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 sea; and
- (g) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Appendix A

TPDES General Permit TXR 040000

Appendix B

Notice of Intent (NOI) for Coverage Under TPDES Permit

Appendix C

BMP Implementation Schedule

Appendix D

Ordinances