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I. INTRODUCTION

Polluted stormwater runoff from urbanized areas is a major cause of impairment to our Nation's waterways. Under the authority of the Clean Water Act, the Environmental Protection Agency (EPA) developed a stormwater permitting program with the goal of significantly reducing this pollution source. The City of Waxahachie has been designated by the EPA as an Urbanized Area and therefore must make application to discharge stormwater to Waters of the United States. The EPA passed the permitting authority for the State of Texas on to the Texas Commission on Environmental Quality (TCEQ). In order to become authorized under the new TCEQ permit on Waxahachie has developed a stormwater management program and intends to implement best management practices (BMPs) that are designed to:

- Reduce the discharge of pollutants to the "maximum extent practicable";
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

PERMIT BACKGROUND

Several national comprehensive studies have indicated that stormwater runoff pollution within highly urbanized areas is a major contributor to water pollution in the United States. As rain falls and stormwater runoff collects and travels over urban lands it picks up and carries pollutants through Municipal Separate Storm Sewer Systems (MS4s) and ultimately in to streams, lakes, rivers, and other water sources impairing water quality. The 1987 amendments to the Clean Water Act required the EPA to develop a comprehensive stormwater permitting program to regulate these types of stormwater discharges to waters of the United States. This stormwater program was developed in two phases. In 1990, Phase I of the program was developed and regulated runoff from medium and large MS4s (population > 100,000) and large construction sites (area > 5 acres). Phase II of the program was developed in 2007 and regulates runoff from small MS4s (population = 1,000 to 100,000) and small construction sites (area = 1 acre to 5 acres).

The EPA authorized the TCEQ to develop and manage the permitting program for the State of Texas. The TCEQ program requires that all regulated MS4s seek authorization to discharge stormwater under the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR040000. A copy of the TPDES permit requirements is located in Appendix B of this document. To become authorized under the Phase II TPDES permit, all small MS4s must develop a Stormwater Management Program that includes certain best management practices or BMPs that have the ultimate goal of improving the quality of stormwater runoff. The permit will authorize small MS4s to discharge stormwater for a period of five years. The first permit term was from August 2007 to August 2012. The permit was administratively continued until the issuance of this current permit. The current permit effective date is December 13, 2013, and all small MS4s are required to prepare and submit to TCEQ a renewed stormwater management program (SWMP) and Notice of Intent form. This renewed SWMP will permit stormwater discharges from the City of Waxahachie from December 2013 until the permit expires in December 2018. A copy of the Notice of Intent for the City of Waxahachie is provided in Appendix A.

The stormwater permit requirements were developed to minimize pollution in stormwater to the maximum extent practicable and effectively prohibit illicit discharges to the storm sewer system. The Waxahachie program contains a variety of structural and non-structural BMPs that have been selected to provide specific stormwater quality improvements and satisfy the six minimum control measures (MCMs) that are required by the permit. The six stormwater quality minimum controls are as follows:



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
5. Pollution Prevention/Good Housekeeping for Municipal Operations
6. Industrial Stormwater Sources (if applicable)

This Stormwater Management Program contains information about the BMPs that have been selected to satisfy the six MCMs. The program contains a description of the selected BMPs, a schedule for implementation and measurable goals to evaluate and track the BMP implementation. As the stormwater management program is evaluated and tracked, the City of Waxahachie may find that some BMPs have become ineffective or need modification. The City intends to modify BMPs and remove and replace any ineffective BMPs with better practices that are deemed more appropriate for the MCM. The permit has flexibility within its guidelines for MS4's to make improvements to the program that will most benefit stormwater quality.

Effective management of stormwater is important to the City of Waxahachie and its citizens. Communities that develop effective Stormwater Management Programs can revitalize their surface waters, improve local quality of life, and create places where businesses and residents want to locate. The City of Waxahachie's goal for this stormwater program is to meet the requirements of the permit and ultimately improve water quality in receiving streams and lakes. Waxahachie has actively participated in stormwater quality improvements for many years and seeks to continue that trend through the continued development and implementation of this stormwater program.

CITY OF WAXAHACHIE BACKGROUND

In order to determine the most effective BMPs for the City of Waxahachie, the background, water resources, and current land use were all taken into consideration. These factors were used to help guide the development of this Stormwater Management Program and help influence what BMPs should be implemented to provide the best approach in reducing pollution in stormwater. This program was developed on what works best for Waxahachie.

Waxahachie is located in the north central Texas region in the center of Ellis County and is approximately 30 miles south of downtown Dallas. Waxahachie is within the Dallas-Fort Worth-Arlington Urbanized Area and shares city boundaries with Ennis, Waxahachie, and Red Oak. Waxahachie's city limits are identified in Figure 1. Waxahachie is also located in the Lower Trinity River basin with the main receiving streams being South Prong Creek and Waxahachie Creek. The State classified water body that ultimately receives the discharge from Waxahachie is Lake Bardwell (#0815) and Lake Waxahachie (#0816).

Waxahachie is known as the Crape Myrtle Capital of Texas and its historic streets are lined with hundreds of pink crape myrtles every summer. Waxahachie hosts a number of festivals each year, including the popular Scarborough Renaissance Festival. According to the 2010 census, the population of Waxahachie is 29,621 and has a growth rate of approximately 3.7%. The City of Waxahachie incorporates approximately 16 square miles within the Urbanized area and contains a 35% residential land use and 24% commercial and industrial land use based on the City of Waxahachie's Comprehensive Plan.

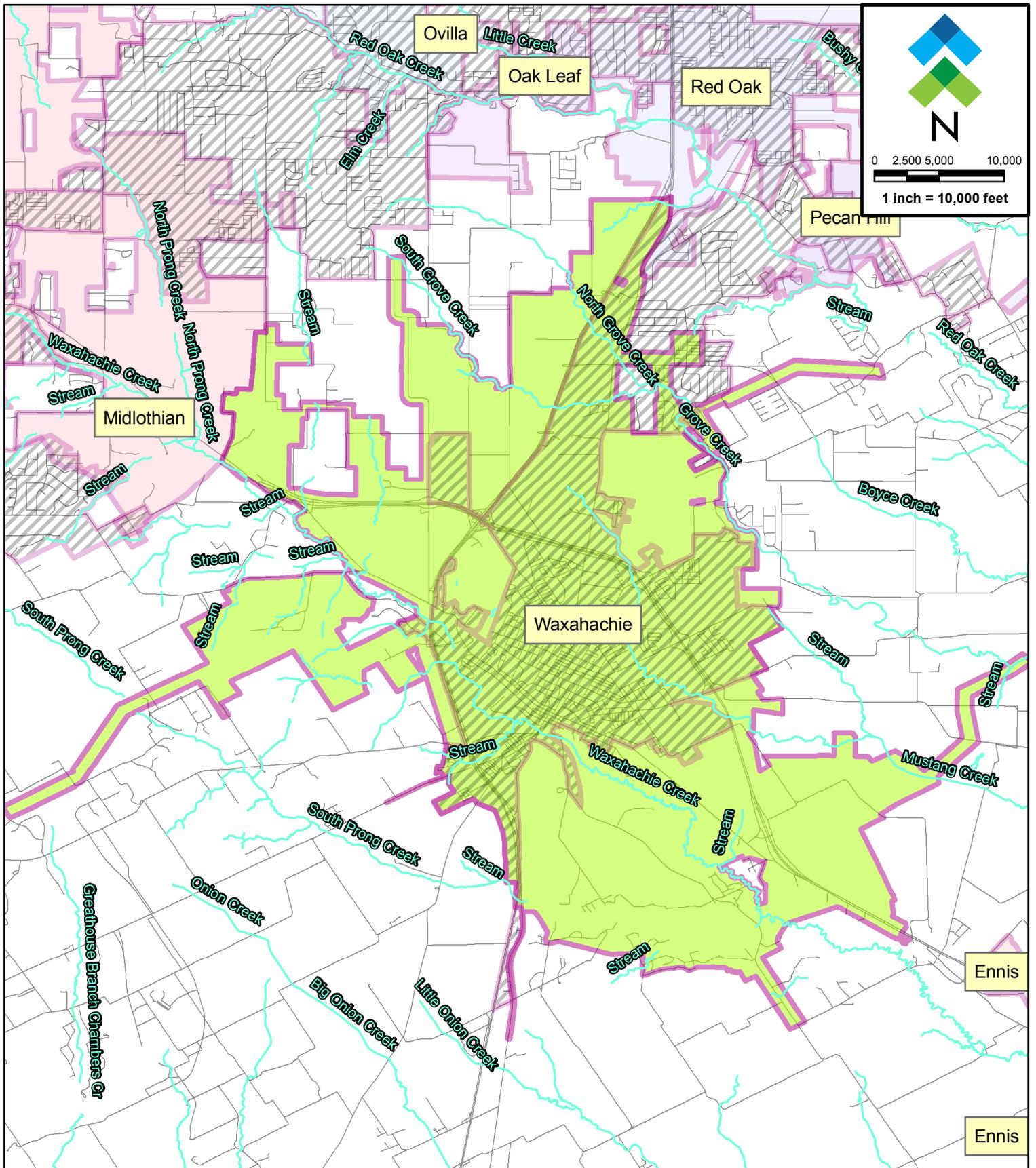


Figure 1
City of
Waxahachie -
Urbanized Area
Map



Legend

-  Waxahachie
-  Streams (NCTCOG)
-  2010 Urbanized Areas



Control Measure - Any BMP or other method used to prevent or reduce the discharge of pollutants to water in the state.

Conveyance - Curbs, gutters, man-made channels and ditches, drains, pipes, and other constructed features designed or used for flood control or to otherwise transport stormwater runoff.

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.

Edwards Aquifer - As defined in 30 TAC §213.3 (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the TCEQ or the TCEQ website.

Final Stabilization - A construction site where any of the following conditions are met:

- (a) All soil disturbing activities at the site have been completed and a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (b) For individual lots in a residential construction site by either:
 - (1) The homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) The homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization.
- (c) For construction activities on land used for agricultural purposes (for example: pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to a surface water and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.
- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - (1) Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and



- (2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

General Permit - A permit issued to authorize the discharge of waste into or adjacent to water in the state for one or more categories of waste discharge within a geographical area of the state or the entire state as provided by Texas Water Code (TWC) §26.040.

Groundwater Infiltration - For the purposes of this permit, groundwater that enters a municipal separate storm sewer system (including sewer service connections and foundation drains) through such means as defective pipes, pipe joints, connections, or manholes.

High Priority Facilities - High priority facilities are facilities with a high potential to generate stormwater pollutants. These facilities must include, at a minimum, the MS4 operator's maintenance yards, hazardous waste facilities, fuel storage locations, and other facilities where chemicals or other materials have a high potential to be discharged in stormwater. Among the factors that must be considered when giving a facility a high priority ranking are: the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s).

Hyperchlorinated Water – Water resulting from hyperchlorination of waterlines or vessels, with a chlorine concentration greater than 10 milligrams per liter (mg/L).

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 firefighting activities.

Impaired Water - A surface water body that is identified on the latest approved CWA §303(d) List as not meeting applicable state water quality standards. Impaired waters include waters with approved or established total maximum daily loads (TMDLs), and those where a TMDL has been proposed by TCEQ but has not yet been approved or established.

Indian Country - Defined in 18 USC § 1151 as: (a) All land within the limits of any Indian reservation under the jurisdiction of the United States (U.S.) Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) All dependent Indian communities within the borders of the U.S. whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state; and (c) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

Indicator Pollutant - An easily measured pollutant, that may or may not impact water quality that indicates the presence of other stormwater pollutants.

Industrial Activities - manufacturing, processing, material storage, and waste material disposal areas (and similar areas where stormwater can contact industrial pollutants related to the industrial activity) at an industrial facility described by the TPDES Multi Sector General Permit, TXR050000, or by another TCEQ or TPDES permit.



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 – For the purpose of this permit, the public entity, and/ or the entity contracted by the public entity, responsible for management and operation of the small municipal separate storm sewer system that is subject to the terms of this general permit.

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):

- (a) Owned or operated by the U.S., a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the 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 the CWA §208 that discharges to surface water in the state;
- (b) That is designed or used for collecting or conveying stormwater;
- (c) That is not a combined sewer; and
- (d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2.

Non-traditional Small MS4 - A small MS4 that often cannot pass ordinances and may not have the enforcement authority like a traditional small MS4 would have to enforce the stormwater management program. Examples of non-traditional small MS4s include counties, transportation authorities (including the Texas Department of Transportation), municipal utility districts, drainage districts, military bases, prisons and universities.

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 this 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 small MS4 discharges to waters of the U.S. 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. For the purpose of this permit, sheet flow leaving a linear transportation system without channelization is not considered an outfall. Point sources such as curb cuts; traffic or right-of-way barriers with drainage slots that drain into open culverts, open swales or an adjacent property, or otherwise not actually discharging into waters of the U.S. are not considered an outfall.

Permittee - The MS4 operator authorized under this general permit.

Permitting Authority - For the purposes of this 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, discrete fissure, container, rolling 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 – For the purpose of this permit, includes biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids (TSS), 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 changed 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.

Semiarid Areas - Areas with an average annual rainfall of at least ten (10) inches, but less than 20 inches.

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, manmade channels, or storm drains):

- (a) Owned or operated by the U.S., a state, city, 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 CWA § 208;
- (b) Designed or used for collecting or conveying stormwater;
- (c) Which is not a combined sewer;
- (d) Which is not part of a publicly owned treatment works (POTW) as defined in 40 CFR § 122.2; and
- (e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

This term includes systems similar to separate storm sewer systems at military bases, large hospitals or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings. For the purpose of this permit, a very discrete system also includes storm drains associated with certain municipal offices and education facilities serving a nonresidential population, where those storm drains do not function as a system, and where the buildings are not physically interconnected to a small MS4 that is also operated by that public entity.

Stormwater and Stormwater Runoff - Rainfall 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, vegetative lined ditches, vegetative filter strips, 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.

Total Maximum Daily Load (TMDL) - The total amount of a substance that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

Traditional Small MS4 - A small MS4 that can pass ordinances and have the enforcement authority to enforce the stormwater management program. An example of traditional MS4s includes cities.

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 2010 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.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

COMMONLY USED ACRONYMS

BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, TXR150000
CWA	Clean Water Act
EPA	Environmental Protection Agency
FR	Federal Register
MCM	Minimum Control Measure
MSGP	Multi-Sector General Permit, TXR050000
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Change
NOI	Notice of Intent
NOT	Notice of Termination (to terminate coverage under a general permit)
NPDES	National Pollutant Discharge Elimination System
SWMP	Stormwater Management Program
SWP3, SWPPP	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TWC	Texas Water Code



III. PROGRAM RATIONALE

REGULATORY REQUIREMENTS

The TCEQ TPDES General Permit Number TXR040000 requires small MS4s to apply for authorization to discharge stormwater to Surface Waters in the State of Texas. The general permit is issued pursuant to Section 26.040 of the Texas Water Code and Section 402 of the Clean Water Act. Application for coverage under this permit includes the submittal of a Notice of Intent (NOI) form and preparation of a Stormwater Management Program (SWMP). The TPDES permit will provide coverage for a five-year period and requires an annual report submittal to TCEQ.

CATEGORIES OF REGULATED SMALL MS4S

The permit classifies MS4 operators into four levels based on the 2010 U.S. Census population within the Urbanized Area. MS4s with larger populations are placed in higher levels, and thus, are expected to implement more BMPs than MS4s with smaller populations. An MS4's designated level will not change during the permit term due to population fluctuation, but could change if the MS4 operator acquires or gives up regulated area. The levels are defined by TCEQ as follows:

- (a) Level 1: Traditional MS4s with a population less than 10,000
- (b) Level 2: Traditional MS4s with a population between 10,000 and 39,999. Also includes non-traditional MS4s.
- (c) Level 3: Traditional MS4s with a population between 40,000 and 99,999
- (d) Level 4: Traditional MS4s with a population over 100,000

With a 2010 Census population of 29,621 the City of Waxahachie is considered a Level 2 Traditional MS4. Level 2 MS4s are not required to implement additional BMPs that are required for Level 3 and Level 4 MS4s, but may optionally do so if desired.

BEST MANAGEMENT PRACTICES

The SWMP must provide a listing and description of best management practices (BMPs) developed to prevent stormwater pollution to the maximum extent practicable. BMPs are required to be developed to satisfy six stormwater quality minimum control measures, as applicable.

- 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
- 5. Pollution Prevention/Good Housekeeping for Municipal Operations
- 6. Industrial Stormwater (Not applicable to Levels 1-3)

Each MCM must contain an appropriate quantity and type of BMP to satisfy the permit requirements to the "maximum extent practicable". The permit regulations state that existing programs or BMPs may be used to



satisfy the requirements of this SWMP. Waxahachie intends to continue many of the successful BMPs that were developed prior to their inclusion in the TPDES program, and add new BMPs to this program to continue advancing efforts to protect stormwater quality. BMPs must include a schedule of implementation during the five-year permit period and a determination of measurable goals to evaluate the effectiveness of the BMP. A description of how each measurable goal will be evaluated must also be provided.

It was the intent of the TCEQ to provide a general permit for small MS4s with enough flexibility to create a stormwater program to meet the unique, individual needs of smaller systems. The program is intended to be developed by the MS4 operator such that it effectively reduces pollutants to the receiving waters and ultimately improves water quality.

IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

The renewed TCEQ Phase II Stormwater Permit includes very specific TMDL requirements that must be considered with the development of a Stormwater Management Plan. A TMDL is the total amount of a substance that a water body can assimilate and still meet the Texas Surface Water Quality Standards. A water body is impaired for purposes of the permit if it has been identified, pursuant to the latest TCEQ and EPA approved CWA 303(d) list, as not meeting Texas Surface Water Quality Standards. Discharges of the pollutant(s) of concern to impaired water bodies for which there is a TCEQ and EPA approved TMDL are not eligible for the permit unless they are consistent with the approved TMDL.

The main receiving streams within the City of Waxahachie are South Prong Creek and Waxahachie Creek. The classified water bodies that ultimately receive the discharge from the City of Waxahachie are Lake Bardwell and Lake Waxahachie. None of these receiving streams or water bodies are listed as impaired or have a TMDL in place. Therefore, the City of Waxahachie is not required, at this time, to include benchmarks or BMPs as outlined in Part II.D.4 of the TCEQ MS4 permit (page 15). However, several of City of Waxahachie's BMPs specifically target bacteria, including Fats, Oils, and Grease Education and Pet Waste Management.



STORMWATER MANAGEMENT PROGRAM DEVELOPMENT

The City of Waxahachie hired Teague Nall and Perkins, Inc. (TNP), a municipal consulting firm, to assist with the preparation of the City's Stormwater Management Program. TNP and City of Waxahachie staff from the Administration Department, Public Works Department, Planning and Zoning Department, Parks and Recreation Department, Communications Department, Community Services Department, and the Utilities Department to evaluate and determine the BMPs, select measurable goals and schedule the implementation of the program elements.

BMP SELECTION PROCESS

A comprehensive BMP Inventory was developed using various BMP resources including the EPA's *National Menu of BMPs* and the North Central Texas Council of Governments *Menu of Management Plan Options for Small MS4s in North Central Texas*. The BMP Inventory provided an inclusive list of BMPs for each MCM. City of Waxahachie personnel reviewed the list and indicated the BMPs that were currently being implemented within the City, and also identified potential future BMPs that could best achieve the goal of improved stormwater quality. Existing BMPs were reviewed and compared with regulatory requirements in the permit for each MCM. TNP met with numerous City of Waxahachie personnel to evaluate existing programs and to select BMPs that would reduce pollutants to the maximum extent practicable.

SELECTION OF MEASURABLE GOALS

The permit stipulates the development of measurable goals for each BMP with a description of how the measurable goal will be evaluated. Measurable goals were selected to assess the effectiveness or appropriateness of the BMPs, provide a baseline for future measurements, provide progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and to evaluate the success of implementation of the BMP. Significant effort was made to select measurable goals that were applicable to the City and achievable, yet provide specific information about each BMP's progress.

IMPLEMENTATION SCHEDULE

The permit also requires that the program indicate the schedule for BMP development and implementation. BMPs may be performed or phased into the program over the five-year period of permit coverage such that the program is completely implemented by the permit expiration date. The City of Waxahachie will ensure that legal authority requirements are met within the first two years of the permit, as required by Part III.A.3 of the permit (page 29).

The City of Waxahachie has been proactive in protecting the quality of its stormwater runoff. Consequently, many of the BMPs required are already being practiced in the City and will continue to be practiced or will be improved upon over the permit term. The BMP implementation schedule was developed in an attempt to phase in BMPs over the permit term that are new or will require significant development effort. Previously developed and completed BMPs are identified as Year 1 activities as required by the permit and existing BMPs that are planned to be implemented each year are identified as Year 1 through Year 5 activities. The progression of implementation aims to continually increase stormwater quality in the City to the maximum extent practicable over the five year permit term.



ANNUAL REPORTING AND TRACKING

The permit effective date is December 13, 2013 and the first year of the permit ends on December 12, 2014. The small MS4 can select their own annual report due date as long as it coincides with the permit year, calendar year, or fiscal year. Both the reporting term and annual reporting due date will remain the same date throughout the permit term. The annual reports are due each year and must be submitted to TCEQ within 90 days after the selected reporting period ends. The City of Waxahachie has chosen to report on the permit year. The annual reports are to be completed as BMPs are implemented to track the progress of the program and to determine if any changes to the program are necessary.

RECORDKEEPING

The City of Waxahachie shall retain all records including a copy of the TPDES permit (located in Appendix B) and records of all data used to complete the NOI and satisfy the public participation requirements, for a period of three (3) years, or for the remainder of the term of this general permit, whichever is longer, as required by the permit (Part IV.A). The City of Waxahachie will also make the NOI and SWMP available to the TCEQ and the general public at Waxahachie City Hall during standard operating hours.



IV. MINIMUM CONTROL MEASURES

The following section is organized according to the five minimum control measures (MCMs):

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
5. Pollution Prevention/Good Housekeeping for Municipal Operations

The sixth MCM, Industrial Stormwater Sources, is not a required MCM for a Level 2 community. Therefore, Waxahachie has excluded this MCM from the SWMP.

Under each MCM heading the TPDES regulations are provided followed by a listing of the proposed BMPs being implemented to meet the permit requirements. The BMPs that are identified within this program, along with the measurable goals and implementation schedule, represent the City's efforts to comply with the permit to the maximum extent practicable. A stormwater management program summary and master tracking table is included within this section and provides an overview of the BMPs, measurable goals, and implementation schedules that will be used to comply with the TPDES regulations. The tables also identify the department responsible for development and implementation of each BMP. Notes are added for each BMP to describe in detail what the City has planned in order to make the BMP effective in reducing stormwater pollution.



A. Public Education, Outreach and Involvement

1. TCEQ Permit Requirements (Ref. TPDES Permit Part III.B.1):

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

(b) PUBLIC INVOLVEMENT

- (1) 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 Small MS4 General 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:

- a. If feasible, consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;
- b. If feasible, 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;
- c. Ensure the public can easily find information about the SWMP.

2. Goals and Objectives

Several high priority community-wide issues were identified in the City of Waxahachie. In general, the City recognized the need for its residents to be better educated on how runoff is generated and what its ultimate destination is – the city's creeks and lakes. The majority of residents do not recognize that stormwater runoff is not treated before entering streams and creeks. The City has developed BMPs that will educate the public about general stormwater issues such as fats, oils, and grease; pet waste; and recycling. The City of Waxahachie also would like to focus on educating children about stormwater issues as it could potentially have a greater impact on the community. The City has added a BMP specifically targeting youth.

The master tracking table that describes each Public Education, Outreach, and Involvement BMP identifies the goal and targeted audience, in addition to the description, measurable goal, implementation year, and notes. The goal details the intended outcome of each BMP. The target audience identifies the specific group of people that the BMP is targeting.

3. Best Management Practices

The City of Waxahachie has selected the following BMPs to fulfill the requirements of the Public Education, Outreach and Involvement minimum control measure:

1. Fats, Oils, and Grease Education
2. Household Hazardous Waste Program
3. Keep Waxahachie Beautiful
4. Media Coverage
5. Pet Waste Management
6. Recycling Program
7. Youth Education



Public Education, Outreach and Involvement							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Fats, Oils, and Grease Education			X	X	X	X	X
Provide educational information and resources about fats, oils, and grease (FOG). Target residents and children to reduce grease clogs and help reduce the number of sanitary sewer overflows.	Communications	Provide a link to FOG educational material on the City website. Provide at least one article in the City newsletter each year.	Year 1 - Year 5				
		Research options for educational material about FOG that can be passed out to residents. Track the material handed out, if used.	Year 4- Year 5				
<p>Goal: To educate the public on proper disposal of fats, oils, and grease.</p> <p>Target Audience: Residents including single family and multifamily.</p> <p>Notes: The City will post online educational material about fats, oils, and grease (FOG). Various information, websites, and videos can be used for free. The City will also evaluate existing handouts that can be given to residents. The TCEQ, EPA, and the North Central Texas Council of Governments all have information or brochures that the City may choose to utilize.</p>							
Household Hazardous Waste (HHW) Program			X	X	X	X	X
A program to provide a location for residents to properly dispose of HHW and to develop public education about the program and improper disposal of HHW.	Communications	Educate the public about household hazardous wastes and events through the City website, Facebook, and/or Twitter.	Year 1 - Year 5				
		Provide an annual community HHW collection event through use of Fort Worth's Crud Cruiser.					
		Renew the interlocal agreement with the City of Fort Worth for use of the Environmental Collection Center.					
<p>Goal: Public education about HHW and involvement in the proper disposal of HHW.</p> <p>Target Audience: Residents including single family and multifamily.</p> <p>Notes: The City currently has an inter-local agreement with the City of Fort Worth for use of their Environmental Collection Center and for use of the Crud Cruiser, a mobile collection facility. Waxahachie covers the cost for its residents to dispose of their HHW at these facilities. Waxahachie will post information about HHW on the website and possibly on social media.</p>							



Public Education, Outreach and Involvement							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Keep Waxahachie Beautiful			X	X	X	X	X
Keep Waxahachie Beautiful is an affiliate of Keep Texas and Keep America Beautiful and has a board composed of citizens that meet monthly to develop and organize public education and involvement programs throughout the community.	Communications	Schedule monthly KHCB Board meetings to organize cleanup events and other beautification activities.	Year 1 - Year 5				
		Advertise monthly meetings on the City website.					
		Distribute an annual report about KHCB programs once per year to all households and businesses.					
<p>Goal: Get the public involved in pollution prevention and cleanup activities to beautify the city.</p> <p>Target Audience: Residents, volunteer groups, businesses</p> <p>Notes: The Keep Waxahachie Beautiful (KWB) Program participates in and organizes: reduce, reuse, recycle; adopt-a-highway; youth awareness programs; renovation of historical districts; Residential Yard of the Month program; Business and Industry Yard of the Month program; and an annual Don't Mess with Texas Trash-off event. The goal of the program is to preserve the natural beauty of Waxahachie, protect the environment, and make Waxahachie a cleaner and better place to live.</p>							
Media Coverage			X	X	X	X	X
Provide media coverage of the City's stormwater management program (SWMP) development and educate the public about general stormwater issues and/or volunteer opportunities.	Communications	Provide at least one article in the newsletter about the City's new SWMP.	Year 1				
		Use social media to provide a monthly tip about protecting stormwater quality.	Year 2 - Year 5				
<p>Goal: Public education on various stormwater issues that affect the City of Waxahachie.</p> <p>Target Audience: Residents including youth, single family and multifamily, businesses, volunteer groups and restaurants.</p> <p>Notes: The City currently has a newsletter that is distributed to residents through the water utility bill. The City also has a Facebook page and Twitter account where information about stormwater quality, events, and resources can be added. The City also maintains a 15 minute radio spot on Fridays at noon called "City Talk" and could use this as an outlet for stormwater information.</p>							



Public Education, Outreach and Involvement							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Pet Waste Management			X	X	X	X	X
Educational outreach to encourage residents to clean up after their pets. Educational material will explain why pet waste is a problem and how it affects water quality.	Community Services	Research existing educational material or develop new material that educates residents about proper pet waste disposal.	Year 3				
		Distribute the educational material to all applicable residents.	Year 4 - Year 5				
		Provide pet waste bag stations Wags-A-Hachie Dog Park and other community parks, and check stations on a weekly basis.					
<p>Goal: Public education about pet waste and proper disposal.</p> <p>Target Audience: Residents including single family and multifamily</p> <p>Notes: The City will establish a Pet Waste Management Program in order to reduce the amount of bacteria entering local streams and creeks via pet waste. The City plans to research educational material as well as ordinance information to determine if a pooper scooper law would be the best option. A large focus of the education will be at the local dog park. Various educational materials about pet waste can be found through different organizations including EPA, TCEQ, and the North Central Texas Council of Governments.</p>							
Recycling Program			X	X	X	X	X
Invite businesses and residents to actively participate in recycling. Provide curbside recycling for residents, and recycling dumpsters at schools. Educate the public about the benefits of recycling and advertise the program through articles on the website and in the City newsletter.	Community Services	Provide a recycling program and invite residents and businesses to participate. Advertise the program on the City website and with an annual newspaper article or utility bill insert.	Year 1 - Year 5				
<p>Goal: To educate the public about recycling and other environmental and stormwater concerns, and encourage resident and business involvement.</p> <p>Target Audience: Residents including single family and multifamily, businesses, and volunteer groups</p> <p>Notes: Several types of recycling educational brochures and articles are available online for the City to use for their program. The City also holds various recycling events in which residents may drop off specific items. The City advertises these events as well as information about recycling on the City website.</p>							



Public Education, Outreach and Involvement							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Youth Education							
Develop and execute programs that specifically target children and youth on stormwater awareness and cleanup efforts.	Community Services	Develop activities or presentations that can be used to educate children about stormwater pollution prevention.		X	X	X	X
		Make annual presentations targeting children and youth audiences.					
<p>Goal: Public education and involvement with various stormwater and environmental issues for children.</p> <p>Target Audience: Children</p> <p>Notes: The City will research or create presentations regarding recycling, household hazardous waste programs, and stormwater quality to be given at local elementary and middle schools. There are interactive models, such as the Enviroscape, that can be rented and used as a resource. The City has public and private schools that they can be targeted. The City will also research the possibility of involving children in park cleanups on a regular basis.</p>							



B. Illicit Discharge Detection and Elimination (IDDE)

1. TCEQ Permit Requirements (Ref. TPDES Permit Part III.B.2):

(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;
 - f. For Level 4 small MS4s, procedures for identifying priority areas within the small MS4 likely to have illicit discharges, and a list of all such areas identified in the small MS4 (See Part III.B.2.(g)(1));
 - g. For Level 4 small MS4s, field screening to detect illicit discharges (See Part III.B.2.(g)(2)).
- (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

To the extent feasible, 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, as determined appropriate, in response to complaints, and shall conduct follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party.

(d) ADDITIONAL REQUIREMENTS FOR LEVEL 3 AND 4 SMALL MS4S

In addition to the requirements described in Parts III.B.2(c)(1)-(6) above, permittees who operate level 3 and 4 small MS4s shall meet the following requirements:

(1) Source Investigation and Elimination

Permittees who operate level 3 and 4 small MS4 shall upon being notified that the discharge has been eliminated, conduct a follow-up investigation or field screening, consistent with Part III.B.2.(e)(2), to verify that the discharge has been eliminated. The permittee shall document its follow-up investigation. The permittee may seek recovery and remediation costs from responsible parties consistent with Part III.A.3., and require compensation related costs. Resulting enforcement actions must follow the procedures for enforcement action in Part

III.A.3. If the suspected source of the illicit discharge is authorized under an NPDES/TPDES permit or the discharge is listed as an authorized non-stormwater discharge, as described in Part III.C, no further action is required.

(e) ADDITIONAL REQUIREMENTS FOR LEVEL 4 SMALL MS4S

In addition to the requirements described in Parts III.B.2(c)-(d) above, permittees who operate level 4 small MS4s shall meet the following requirements:

(1) Identification of Priority Areas



Permittees who operate level 4 small MS4s shall identify priority areas and shall document the basis for the selection of each priority area and shall create a list of all priority areas identified. This priority area list must be available for review by the TCEQ.

(2) Dry Weather Field Screening

By the end of the permit term, permittees who operate level 4 small MS4s shall develop and implement a written dry weather field screening program to assist in detecting and eliminating illicit discharges to the small MS4. Dry weather field screening must consist of (1) field observations; and (2) as needed, field screening. If dry weather field screening is necessary, at a minimum, the permittee shall:

- a. Conduct dry weather field screening in priority areas as identified by the permittee in Part III.B.2(e)(1). By the end of the permit term, all of those priority areas, although not necessarily all individual outfalls must be screened.
- b. Field observation requirements – The permittee shall develop written procedures for observing flows from outfalls when there has been at least 72 hours of dry weather. The written procedures should include the basis used to determine which outfalls would be observed. The permittee shall record visual observations such as odor, color, clarity, floatables, deposits or stains.
- c. Field screening requirements – The permittee shall develop written procedures to determine which dry weather flows will be screened, based on results of field observations or complaint from the public or the permittee’s trained field staff. At a minimum, when visual observations indicate a potential problem such as discolored flows, foam, surface sheen, and other similar indicators of contamination, the permittee shall conduct a field screening analysis for selected indicator pollutants as determined by the permittee. Screening methodology may be modified based on experience gained during the actual field screening activities. The permittee shall document the method used.

2. Best Management Practices

The City of Waxahachie has selected the following BMPs to fulfill the requirements of the Illicit Discharge Detection and Elimination minimum control measure:

1. Illicit Discharge Ordinance
2. Storm Drainage Outfall Map
3. Education and Training on Illicit Discharges
4. Public Reporting & Response Procedures
5. Source Investigation & Elimination
6. Detection and Elimination of Illicit Sanitary Sewer Discharges



Illicit Discharge Detection and Elimination							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Illicit Discharge Ordinance				X	X	X	X
Develop an ordinance to effectively prohibit illicit discharges, including non-stormwater discharges and illegal dumping, and provide appropriate enforcement procedures and actions for ordinance violations.	Public Works	Develop and adopt an illicit discharge ordinance. Implement and enforce the illicit discharge ordinance.	Year 2 - Year 5				
<p>Notes: The City can use the example NCTCOG or other regional example ordinances to create the City of Waxahachie ordinance in order to comply with Part III.A.3 (pg. 29) of the TCEQ permit. The City will also consider non-stormwater discharges noted in the TCEQ permit for inclusion in the illicit discharge ordinance.</p>							
Storm Drainage Outfall Map						X	X
Develop a map of the City of Waxahachie storm sewer system outfalls and the names and locations of receiving waters to aid in the detection and elimination of illicit discharges.	Public Works	50% of storm sewer outfalls mapped.	Year 4				
		100% of storm sewer outfalls mapped.	Year 5				
<p>Notes: The City will develop a map of the storm drain system that includes locations of outfalls and receiving waters within the Urbanized Area. The map can be created using record drawings and/or field verification. The MS4 outfall map will be located in the Waxahachie Public Works Department.</p>							



Illicit Discharge Detection and Elimination							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Education and Training on Illicit Discharges					X	X	X
Provide educational information and training to relevant City staff including field personnel who may come into contact with or observe an illicit discharge or illicit connection.	Public Works	Develop a list of City staff and training materials to be used for illicit discharge detection education.	Year 3				
		Provide training for City staff and document attendees and training materials used.	Year 4 - Year 5				
<p>Notes: The City will implement an illicit discharge and illicit connection training program for any City staff that could come into contact with or observe and illicit discharge or connection to the MS4. The City may use outside training resources or may develop in-house training utilizing available resources including online training, Center for Watershed Protection training materials, or other regional developed training materials through NCTCOG, EPA, etc. The training programs and materials lists will be maintained with the Engineering Department.</p>							
Public Reporting & Response Procedures			X	X	X	X	X
Provide a public reporting/input mechanism for receipt and consideration of information submitted by the public concerning construction site stormwater runoff, illicit discharges or illegal dumping.	Communications & Public Works	Post a public reporting/input phone number and information on the City newsletter and/or website with a central contact point.	Year 1 - Year 5				
		Document reports received and any corrective actions taken.	Year 1 - Year 5				
		Develop on-site procedures for responding to illicit discharges and spills.	Year 4 - Year 5				
<p>Notes: The City currently has a tab on the website that is for Emergency Services. The tab provides contact information for police, fire, street lights, power outages, and water and sewer issues. This is most likely where the City will add a link about environmental concerns, including illicit discharges. The Communications Department will administer the educational aspect of the reporting/input program by advertising the program on the City website, newsletter and through other means and by providing a central point of contact to receive reports. The Public Works Department will receive, document and respond to the reports and input from the public. The City will follow the procedures as developed under the Source Investigation and Elimination BMP.</p>							



Illicit Discharge Detection and Elimination							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Source Investigation and Elimination			X	X	X		
Develop inspection and investigation procedures to identify and locate the source of any reported illicit discharges. Develop procedures for addressing the source of an illicit discharge including corrective actions upon source determination, follow-up investigations and dry weather screening, as appropriate.	Public Works	Develop written procedures for responding to illicit discharges including inspections, investigations, and corrective actions.	Year 3				
		Implement the illicit discharge source investigation and elimination procedures. Document all reports and responses.	Year 4 - Year 5				
<p>Notes: The City will develop illicit discharge inspection, investigation and elimination procedures to comply with Part III.B.2.(c)(5) of the TCEQ MS4 permit (pg. 34). Inspections shall be performed in response to complaints or reports of illicit discharges. Investigations shall include prioritization based on potential risk to human health and/or the environment, tracking and documentation of the inspection of the source, follow-up inspections once corrected, and date closed. Upon the discovery of any immediate risk to human health or the environment, the City will contact TCEQ. If the source of the discharge is outside its jurisdiction, the City shall notify the responsible MS4 or the TCEQ as appropriate. Corrective actions shall include notification to the discharger of the problem, requirements for performing all corrective actions. Penalties may be assessed as determined by the MS4 per the illicit discharge ordinance.</p>							
Detection and Elimination of Illicit Sanitary Sewer Discharges			X	X	X	X	X
A program to eliminate illicit discharges resulting from sanitary sewer system overflows and illegal connections. Eliminate illegal sanitary sewer connections and perform sanitary sewer maintenance, replacement and/or rehabilitation projects to significantly reduce and/or eliminate sanitary sewer overflow potential.	Public Works	Perform sanitary sewer line maintenance, rehabilitations and replacement projects as the budget allows.	Year 1 - Year 3				
		Track locations of completed projects, and locations for future maintenance and/or rehabilitation projects.	Year 1 - Year 5				
<p>Notes: The City uses TV inspections, manhole inspections, and lift station inspections to prevent sanitary sewer overflows (SSO). The City also has a SSO Initiative Agreement with the TCEQ to reduce the number of SSOs.</p>							



C. Construction Site Stormwater Runoff Control

1. TCEQ Permit Requirements (Ref. TPDES Permit Part III.B.3):

(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 PERMITEES

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

- (1) All permittees shall 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 within a period of time determined by the permittee. In arid, semiarid, and drought stricken areas, as determined by the permittee, where



initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the permittee.

- 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, as determined by the permittee, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the permittee. 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. Inspections must occur at a frequency determined by the permittee, 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, implement, and revise as necessary, 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.

(c) ADDITIONAL REQUIREMENTS FOR LEVEL 3 AND 4 SMALL MS4S

In addition to the requirements described in Parts III.B.3(b)(1)-(7) above, permittees who operate level 3 and 4 small MS4s shall meet the following requirements:

(1) Construction Site Inventory

Permittees who operate level 3 and 4 small MS4s shall maintain an inventory of all permitted active public and private construction sites, that result in a total land disturbance of one or more acres or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale. Notification to the small MS4 should be made by submittal of a copy of an NOI or a small construction site notice. The permittee shall make this inventory available to the TCEQ upon request.

2. Best Management Practices

The City of Waxahachie has selected the following BMPs to fulfill the requirements of the Construction Site Stormwater Runoff Control minimum control measure:

1. Erosion & Sediment Control Ordinance
2. Construction Plan Review Procedures
3. Construction Site Inspection and Enforcement
4. Construction Stormwater Training



Construction Site Stormwater Runoff Control							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Erosion & Sediment Control Ordinance			X	X	X	X	
Develop erosion and sediment control ordinance for regulated construction activities to include implementation of erosion and sediment controls, soil stabilization and BMPs. Develop a list of prohibited discharges from construction activities to be included in the erosion and sediment control ordinance.	Public Works	Develop and adopt a construction erosion and sediment control ordinance.	Year 2				
		Implement and enforce the erosion and sediment control ordinance.	Year 3 - Year 5				
<p>Notes: The City can use the example NCTCOG or other regional example ordinances to create the City of Waxahachie ordinance in order to comply with Part III.A.3 (pg. 29) of the TCEQ permit. The City will maintain compliance with the renewed TCEQ MS4 permit and will include permit conditions, including identified "prohibited discharges" noted in Part III.B.(b)(3) (pg.36-37).</p>							
Construction Plan Review Procedures			X	X	X		
Develop improved construction plan review procedures to evaluate proposed erosion and sediment controls in accordance with the City's construction erosion and sediment control ordinance.	Public Works	Review and amend, if necessary, existing erosion control plan review procedures for compliance with the renewed TCEQ permit.	Year 3				
		Administer the review process for all new regulated construction projects.	Year 4 - Year 5				
<p>Notes: The City will develop and implement site plan review procedures, to comply with the Construction Plan Review Procedures described in Part III.B.(b)(4) of the TCEQ MS4 Permit (pg. 37). The procedures will describe which plans will be reviewed and when operators may begin construction. Procedures will also include consideration of water quality impacts, site specific control measures, and may include submittal of a SWPPP to the City for review.</p>							



Construction Site Stormwater Runoff Control							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Construction Site Inspections and Enforcement					X	X	X
Develop improved construction site inspection and enforcement procedures to ensure the proper installation and maintenance of erosion and sediment controls on regulated construction projects.	Public Works	Review and amend, if necessary, the existing inspection procedures for erosion and sediment controls in compliance with the renewed TCEQ permit.	Year 3				
		Administer the inspection and enforcement program and document construction site inspections performed and any follow-up actions.	Year 4 - Year 5				
<p>Notes: The City has developed an inspection checklist for regulated construction projects. The City will develop and implement additional inspection and enforcement procedures as needed to comply with the Construction Site Inspection and Enforcement requirements described in Part III.B.(b)(5) of the TCEQ MS4 Permit (pg. 37-38). The City will develop written procedures outlining the inspection and enforcement requirements. The procedures will include frequency of inspections based on site specific water quality factors, verification that the project is covered under the TCEQ construction permit (TXR150000), and verification that the project is in compliance with the City's Erosion and Sediment Control Ordinance. The City will complete either written or electronic inspection reports for projects and will keep these on file in the Public Works Department.</p>							
Construction Stormwater Training				X	X	X	X
Training for City personnel responsible for implementing the construction site stormwater program including permitting, plan review, inspections and enforcement.	Public Works	Develop a training program including employees to be trained, a training schedule, and training materials and methods.	Year 2				
		Implement and track the training program for designated employees	Year 3 - Year 5				
<p>Notes: The City will provide training for personnel responsible for implementing the various aspects of the construction stormwater program. Training will include BMP selection, maintenance, and construction techniques for various erosion and sediment control BMPs. Various training opportunities are available which include in-house training using existing staff, training DVD's or outside training at NCTCOG or other training facilities. The City will document the attendees and training materials used.</p>							



D. Post-Construction Stormwater Management in New Development and Redevelopment

1. TCEQ Permit Requirements (Ref. TPDES Permit Part III.B.4):

(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, 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 PERMITEES

All permittees shall include the requirements described below in Parts III.B.4.(b)(1)-(3)

- (1) All permittees shall 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 requirements 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.

(c) ADDITIONAL REQUIREMENTS FOR LEVEL 4 SMALL MS4S

In addition to the requirements described in Parts III.B.5(b)(1)-(3) above, permittees who operate level 4 small MS4s shall meet the following requirements:

- (1) Inspections - Permittees who operate level 4 small MS4s shall develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance plan. For small MS4s with limited enforcement authority, this requirement applies to the structural controls owned and operated by the small MS4 or its contractors that perform these activities within the small MS4's regulated area.
 - a. Inspection Reports - The permittee shall document its inspection findings in an inspection report and make them available for review by the TCEQ.

2. BEST MANAGEMENT PRACTICES

The City of Waxahachie has selected the following BMPs to fulfill the requirements of the Post-Construction Stormwater Management in New Development and Redevelopment minimum control measure:

1. Post-Construction Ordinance
2. Long-Term Maintenance of Post-Construction BMPs
3. Landscape Requirements



Post-Construction Stormwater Management in New Development and Redevelopment							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Post-Construction Ordinance				X	X	X	X
Develop a post-construction stormwater runoff ordinance to require developers to address post-construction runoff control from new development and redevelopment projects and ensure long term operation and maintenance of proposed BMPs.	Planning and Zoning & Public Works	Develop and adopt a post-construction runoff ordinance.	Year 2				
		Implement and enforce the post-construction ordinance. Document and maintain enforcement actions.	Year 3 - Year 5				
<p>Notes: The City can use the example NCTCOG or other regional example ordinances to create the City of Waxahachie ordinance in order to comply with Part III.A.3 (pg. 29) of the TCEQ permit. The ordinance will require the design, installation, implementation, and maintenance of BMPs to protect water quality. The BMPs will be reviewed by the Planning and/or public works department during planning and design of the site. The ordinance will be re-evaluated in Year 5 to determine if the ordinance should be updated based on the completion of the post-construction procedures developed in Year 4.</p>							
Long-Term Maintenance of Post-Construction BMPs					X		
Develop requirements for long-term maintenance of post-construction BMPs that are installed on new development and re-development projects.	Planning and Zoning & Public Works	Develop requirements for the long-term operation and maintenance of structural controls installed on development sites.	Year 4				
<p>Notes: The City shall review the existing long-term maintenance requirements of the post-construction ordinance and the long-term O&M requirements as outlined in Part III.B.4.(b)(3) of the TCEQ MS4 permit (pg. 39). Maintenance plans will be required to be filed in the real property records of the county. Maintenance plans will also have requirements for retention of maintenance records for any structural control measures installed on site.</p>							



Post-Construction Stormwater Management in New Development and Redevelopment							
Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Landscape Requirements			X	X	X	X	X
Provide an ordinance requiring landscape requirements for new development and redevelopment	Planning	Continue to administer the existing landscaping ordinance. Document and maintain enforcement actions.	Year 1 – Year 5				
<p>Notes: The City currently has a landscape requirement ordinance (Zoning requirements, V. Development Standards, Section 36, "Landscape Requirements"). The requirements not only add aesthetic development for the City, but also provide a reduction in stormwater runoff.</p>							



E. Pollution Prevention and Good Housekeeping for Municipal Operations

1. TCEQ Permit Requirements (Ref. TPDES Permit Part III.B.5):

(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. If feasible, the inventory may 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.

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.

(3) 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 developed before the end of the permit term and maintained on site and made available for inspection by TCEQ.

(4) 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. A log of inspections must be maintained and made available for review by the TCEQ upon request.

(5) 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.

(d) ADDITIONAL REQUIREMENTS FOR LEVEL 3 AND 4 SMALL MS4S:

In addition to the requirements described in Parts.B.5.(b)(1)-(6) above, permittees who operate level 3 or 4 small MS4s shall meet the following requirements:

(1) Storm Sewer System Operation and Maintenance

- a. Permittees who operate level 3 or 4 small MS4s shall develop and implement an O&M program to reduce to the maximum extent practicable the collection of pollutants in catch basins and other surface drainage structures.
- b. Permittees who operate level 3 or 4 small MS4s shall develop a list of potential problem areas. The permittees shall identify and prioritize problem areas for increased inspection (for example, areas with recurrent illegal dumping).

(2) Operation and Maintenance Program to Reduce Discharges of Pollutants from Roads

Permittees who operate level 3 or 4 small MS4s shall implement an O&M program that includes, if feasible and practicable, a street sweeping and cleaning program, or an equivalent BMP such as an inlet protection program, which must include an implementation schedule and a waste disposal procedure. The basis for the decision must be included in the SWMP. If a street sweeping and cleaning program is implemented, the permittee shall evaluate the following permittee-owned and operated areas for the program: streets, road segments, and public parking lots including, but not limited to, high traffic zones, commercial and industrial districts, sport and event venues, and plazas, as well as areas that consistently accumulate high volumes of trash, debris, and other stormwater pollutants.



- a. Implementation schedules – If a sweeping program is implemented, the permittee shall sweep the areas in the program (for example, the streets, roads, and public parking lots) in accordance with a frequency and schedule determined in the permittee’s O&M program.
- b. For areas where street sweeping is technically infeasible (for example, streets without curbs), the permittee shall focus implementation of other trash and litter control procedures, or provide inlet protection measures to minimize pollutant discharges to storm drains and creeks.
- c. Sweeper Waste Material Disposal – If utilizing street sweepers, the permittee shall develop a procedure to dewater and dispose of street sweeper waste material and shall ensure that water and material will not reenter the small MS4.

(2) Mapping of Facilities

Permittees who operate level 3 or 4 small MS4s shall, on a map of the area regulated under this general permit, identify where the permittee-owned and operated facilities and stormwater controls are located.

(3) Facility Assessment

Permittees who operate level 3 or 4 small MS4s shall perform the following facility assessment in the regulated portion of the small MS4 operated by the permittee:

- a. Assessment of Facilities’ Pollutant Discharge Potential - The permittee shall review the facilities identified in Part III.B.5.(b) once per permit term for their potential to discharge pollutants into stormwater.
- b. Identification of *high priority* facilities - Based on the Part III.B.5.(c)(4)a. assessment, the permittee shall identify as *high priority* those facilities that have a high potential to generate stormwater pollutants and shall document this in a list of these facilities. Among the factors that must be considered in giving a facility a high priority ranking are the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s). High priority facilities must include, at a minimum, the permittee’s maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in stormwater.
- c. Documentation of Assessment Results - The permittee shall document the results of the assessments and maintain copies of all site evaluation checklists used to conduct the assessments. The documentation must include the results of the permittee’s initial assessment, and any identified deficiencies and corrective actions taken.

(4) Development of Facility Specific SOPs

Permittees who operate level 3 or 4 small MS4s shall develop facility specific stormwater management SOPs. The permittee may utilize existing plans or documents that may contain the following required information:



- a. For each high priority facility identified in Part III.B.5.(c)(4)b., the permittee shall develop a SOP that identifies BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in stormwater from each facility.
- b. A hard or electronic copy of the facility-specific stormwater management SOP (or equivalent existing plan or document) must be maintained and be available for review by the TCEQ. The SOP must be kept on site when possible and must be updated as necessary.

(5) Stormwater Controls for High Priority Facilities

Permittees who operate level 3 or 4 small MS4s shall implement the following stormwater controls at all high priority facilities identified in Part III.B.5.(c)(4)b. A description of BMPs developed to comply with this requirement must be included in each facility specific SOP:

- a. General good housekeeping – Material with a potential to contribute to stormwater pollution should be sheltered from exposure to stormwater when feasible.
- b. De-icing and anti-icing material storage - The permittee shall ensure, to the MEP, that stormwater runoff from storage piles of salt and other de-icing and anti-icing materials is not discharged; or shall ensure that any discharges from the piles are authorized under a separate discharge permit.
- c. Fueling operations and vehicle maintenance - The permittee shall develop SOPs (or equivalent existing plans or documents) which address spill prevention and spill control at permittee-owned and operated vehicle fueling, vehicle maintenance, and bulk fuel delivery facilities.
- d. Equipment and vehicle washing - The permittee shall develop SOPs that address equipment and vehicle washing activities at permittee-owned and operated facilities. The discharge of equipment and vehicle wash water to the small MS4 or directly to receiving waters from permittee-owned facilities is not authorized under this general permit. To ensure that wastewater is not discharged under this general permit, the permittee's SOP may include installing a vehicle wash reclaim system, capturing and hauling the wastewater for proper disposal, connecting to sanitary sewer (where applicable and approved by local authorities), ceasing the washing activity, or applying for and obtaining a separate TPDES permit.

(6) Inspections

Permittees who operate level 3 or 4 small Ms4s shall develop and implement an inspection program, which at a minimum must include periodic inspections of high priority permittee-owned facilities. The results of the inspections and observations must be documented and available for review by the TCEQ.

(d) ADDITIONAL REQUIREMENTS FOR LEVEL 4 SMALL MS4S:

In addition to all the requirements described in Parts III.B.5(b) and III.B.5.(c) above, permittees who operate level 4 small MS4s shall meet the following requirements:

- (1) Pesticide, Herbicide, and Fertilizer Application and Management



- a. Landscape maintenance - The permittee shall evaluate the materials used and activities performed on public spaces owned and operated by the permittee such as parks, schools, golf courses, easements, public rights of way, and other open spaces for pollution prevention opportunities. Maintenance activities for the turf landscaped portions of these areas may include mowing, fertilization, pesticide application, and irrigation. Typical pollutants include sediment, nutrients, hydrocarbons, pesticides, herbicides, and organic debris.
- b. The permittee shall implement the following practices to minimize landscaping-related pollutant generation with regard to public spaces owned and operated by the permittee:
 - (i) Educational activities, permits, certifications, and other measures for the permittee's applicators and distributors.
 - (ii) Pest management measures that encourage non-chemical solutions where feasible. Examples may include:
 - (a) Use of native plants or xeriscaping;
 - (b) Keeping clippings and leaves out the small MS4 and the street by encouraging mulching, composting, or landfilling;
 - (c) Limiting application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions;
 - (d) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing motorist safety.
- c. The permittee shall develop schedules for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and expected precipitation.
- d. The permittee shall ensure collection and proper disposal of the permittee's unused pesticides, herbicides, and fertilizers.

2. Best Management Practices

The City of Waxahachie has selected the following BMPs to fulfill the requirements of the Pollution Prevention/Good Housekeeping for Municipal Operations minimum control measure:

1. Facility and Stormwater Control Inventory
2. Municipal Employee Training Program
3. Contractor Requirements and Oversight
4. Municipal Operation and Maintenance Activities



Pollution Prevention/Good Housekeeping for Municipal Operations

Best Management Practice	Responsible Department	Measurable Goal	Implementation Year				
			1	2	3	4	5
Facility and Stormwater Control Inventory						X	X
Develop and maintain a list of City-owned and operated facilities and stormwater controls, as well as all applicable permit numbers for any City facility with a separate TPDES permit.	Public Works	Prepare and maintain an inventory of City-owned and operated facilities and stormwater controls.	Year 4 - Year 5				
<p>Notes: The City will review the list of facilities and controls provided under Part III.B.5.(b)(1) under the TCEQ MS4 permit (pg. 40-41) and will consider other facilities as appropriate for inclusion in the inventory. The City will update the inventory if and when new facilities and controls are constructed.</p>							
Municipal Employee Training Program			X	X	X	X	
Develop a training program that includes seminars, in-house training sessions, new-employee training, videos, manuals or other means to inform and train municipal employees about methods to prevent and reduce stormwater pollution from municipal activities.	Public Works	Organize a list of employees that will receive training, a training schedule, and select appropriate training materials and methods.	Year 2				
		Implement the municipal employee training program and maintain a training attendee list with signatures.	Year 3 - Year 5				
<p>Notes: This BMP will target municipal employees involved in pollution prevention and good housekeeping practices. Examples of training activities include Parks Dept. training on proper fertilizer and pesticide use, Public Works training on proper erosion and sediment controls during construction, training for the washing of construction equipment, or cleanup and spill response training. Several training resources are available for municipal use and include Partners for a Clean Environment (PACE), NCTCOG, and EPA resources.</p>							



Pollution Prevention/Good Housekeeping for Municipal Operations

Best Management Practice	Responsible Department	Measurable Goal	Implementation				
			Year				
			1	2	3	4	5
Contractor Requirements and Oversight					X	X	X
Requirements for City-hired contractors that perform maintenance activities on City-owned facilities to comply with the stormwater control, waste disposal and good housekeeping requirements of this program. Develop contractor oversight procedures to ensure the contractual stormwater requirements are being implemented.	Public Works	Develop a list of City-hired contractors subject to these stormwater program requirements.	Year 3				
		Develop contractual requirements for applicable contractor agreements and written oversight procedures.	Year 4				
		Implement the oversight procedures and execute revised contractual agreements as applicable.	Year 5				
<p>Notes: The City will develop a list of City-hired contractors subject to the stormwater pollution prevention and good housekeeping requirements of this program and review the existing contracts and revise as needed. The City will provide oversight of contractor activities to ensure that contractors are using appropriate control measures and standard operating procedures. Oversight procedures will be maintained with the stormwater program.</p>							
Municipal Operation and Maintenance Activities					X	X	X
Develop and implement pollution prevention measures for municipal operations and maintenance activities to reduce the potential for discharge of pollutants in stormwater.	Public Works	Perform an assessment of municipal operations and/or activities that have the potential for pollutant discharges.	Year 3				
		Develop pollution prevention measures for municipal O&M activities and select inspection frequencies.	Year 4 - Year 5				
<p>Notes: The City will assess municipal O&M activities such as road and parking lot maintenance including pothole repair, pavement marking, sealing, repaving, bridge maintenance, cold weather operations such as sanding and deicing and right-of-way maintenance such as mowing, herbicide and pesticide application, and planting. The City will identify pollutants of concern (i.e. metals, chlorides, hydrocarbons, sediment, trash, etc.) that could be discharged from these O&M activities and develop a set of pollution prevention measures. Pollution prevention measures could include replacing materials with more environmentally benign materials, changing operations to minimize exposure, or using BMPs to prevent discharges such as containment devices. All pollution prevention measures will be visually inspected at a frequency to ensure they are working properly. Several pollution prevention methods and procedures have been developed for municipalities and are available on the PACE (Partners for a Clean Environment) website at www.pacepartners.com.</p>							



**APPENDIX A
CITY OF WAXAHACHIE
NOTICE OF INTENT**



APPENDIX B
TPDES GENERAL PERMIT TXR040000



APPENDIX C ANNUAL REPORT TEMPLATE

(TCEQ is currently revising the template. These forms will be replaced with the latest version when they become available)