The revised

Stormwater Management Plan

TPDES Phase II MS4s
General Permit No. TXR040000

Submitted to

Texas Commission on Environmental Quality
Applications Review and Processing Team (MC-148)

April 2014

Prepared by

Community Development Department
Public Works Department
Level 2 Operator

August 2013

STORMWATER MANAGEMENT PROGRAM

TABLE OF CONTENTS

1.0 GENERAL PROVISIONS

1.1 Purposes

- To maintain and improve the quality of surface water and groundwater within the City of Sachse, the North Central Texas Region, and the State of Texas.

- To prevent the discharge of contaminated stormwater runoff from commercial, residential, and construction sites into the small municipal separate storm sewer system (MS4) and natural waters within the City.

- To promote public awareness of the hazards involved in the improper discharge of hazardous substances, petroleum products, household hazardous waste, industrial waste, sediment from construction sites, pesticides, herbicides, fertilizers, and other contaminants into the storm sewers and natural waters of the City.

- To encourage recycling of used motor oil and safe disposal of other hazardous consumer products.

- To facilitate compliance with federal and state water quality standards, limitations, and permits by owners and operators of industrial and construction sites within the City.

- To enable the City to comply with all federal and state laws and regulations applicable to storm water discharges.

- To facilitate the City's efforts in reducing storm water pollutants from the City's municipal separate storm sewer system (MS4s) to the "Maximum Extent Practicable" (MEP) as required by the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR040000.

1.2 Regulatory Background and Permit Applicability

The 1972 Clean Water Act (CWA) introduced the National Pollutant Discharge Elimination System (NPDES). The NPDES program was established as the fundamental regulatory mechanism of the CWA requiring direct dischargers of pollutants into waters of the United States to obtain an NPDES permit. The NPDES program required anyone discharging a pollutant from a point source into the waters of the United States to obtain an NPDES permit. During this period, the NPDES permit program focused on improving surface water quality by reducing pollutants of industrial process wastewater and municipal sewage.

In November 1990, the NPDES Phase I permit was issued and addressed stormwater discharges from medium to large municipal separate storm sewer systems (MS4s), which were communities serving a population of at least 100,000 people, as well as storm water discharges from industrial activity. The ruling also placed permitting requirements on some construction activities.

In August 2007, the Texas Pollutant Discharge Elimination System (TPDES) Phase II permit program followed the 1990 NPDES Phase I permit program focuses on small municipalities and is issued by Texas Commission on Environmental Quality (TCEQ) in Texas. The Phase II rule addressed small municipal separate storm sewer systems (MS4s) serving a population of less than 100,000 people in urbanized areas. The program's main objective is to control construction activities and non-point source pollution of waterways in urban areas to the maximum extent

practicable (MEP). The Phase II MS4s program requires preparing a Storm Water Management Program (SWMP) which describes the Best Management Practices (BMPs) to be implemented to comply with the Environmental Protection Agency (EPA)/TCEQ's regulations.

In the state of Texas, the EPA has delegated the TCEQ as the state permitting authority of the National Pollutant Discharge Elimination System (NPDES) program in Texas on Sept. 14, 1998. The Phase II MS4 communities in Texas must submit the five-year permit term Notice of Intent (NOI) and a Storm Water Management Plan (SWMP) to the TCEQ for every 5 years, which includes the City of Sachse. This revised SWMP is intended to satisfy the requirements of the TCEQ General Permit for storm water discharges from small MS4s.

The TPDES Phase II MS4 permit applies to operators of publicly-owned storm sewer system in urbanized areas in Texas. The U.S. Census Bureau defines the urbanized areas based on the total population and population density for an area. According to demographic data from North Central Texas Council of Governments (NCTCOG), **the population of the City in 2011 was 20,570 with a population density of 2074 people per square mile**. A three-quarter of approximated area in the City of Sachse is located within the "Dallas-Fort Worth-Arlington, TX" U.S. 2010 Census Urbanized Areas. Only the urbanized area of the City is required to be included in this Phase II storm water management plan. All components of the SWMP may be voluntarily implemented by the City within the non-urbanized area of the City as well. Figure 1 shows the current city limits with respect to the 2010 U.S. Census Urbanized Areas.

The City of Sachse supports the TPDES Phase II program and recognizes that reducing storm water pollution is essential to the quality of life for the citizens and their environment. The City is dedicated to implementing the SWMP in order to protect water quality. The City has developed a comprehensive storm water management plan for the first five-year term and will update all final regulations for Phase II in compliance for the next five-year permit term (2012 to 2017). This revised SWMP will serve as the City's permit, describing actions that include best management practices (BMPs), measurable goals, and timetables for what is defined as minimum control measures (MCMs). MCMs are storm water program areas that must be addressed by all regulated MS4s. The following MCMs required by the General Permit are:

Public Education, Outreach, and Involvement: Distributing educational materials and performing public outreach to increase community awareness about urban runoff pollutants, and inform citizens on how they can make a difference to reduce stormwater pollution. Providing opportunities for citizens to participate in water quality improvement projects.

Illicit Discharge Detection and Elimination: Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system. Includes developing a system map, informing the community about hazards associated with illegal discharges and improper disposal of waste.

Construction Site Storm Water Runoff Control: Developing, implementing and enforcing an erosion prevention and sediment control program to reduce pollutants from construction sites.

Post-Construction Storm Water Management: Developing, implementing, and enforcing a program to reduce the impact of new development and redevelopment on post-construction water quality and quantity. Controls include preventative actions such as protecting sensitive areas, or the use of structural best management practices such as grassed swales or detention ponds.

Pollution Prevention/Good Housekeeping: Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program includes municipal staff training on pollution prevention measures and techniques.

Industrial Storm Water Source: Identify and control pollutants in storm water discharges to the small MS4. This requirement applies to operators of Level 4 small MS4s only.

Authorization for Municipal Construction Activities: An optional measure and an alternative to the MS4 operator seeking coverage under TPDES general permit TXR150000 for municipal construction activities.

1.3 Definitions

The definitions are taken directly from TPDES Phase II general permit No. TXR040000 are used throughout this Storm Water Management Plan (SWMP).

Arid Areas - Areas with an average annual rainfall of less than ten (10) inches.

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

Catch basins - Storm drain inlets and curb inlets to the storm drain system. Catch basins typically include a grate or curb inlet that may accumulate sediment, debris, and other pollutants.

Classified Segment - A water body that is listed and described in Appendix A or Appendix C of the Texas Surface Water Quality Standards, at 30 Texas Administrative Code (TAC) § 307.10.

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

Common Plan of Development or Sale - A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development or sale is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities.

Construction Activity - Soil disturbance, including clearing, grading, and excavating; and not including routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Small Construction Activity is construction activity that results in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land

area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land.

Large Construction Activity is construction activity that results in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land.

Construction Site Operator - The entity or entities associated with a small or large construction project that meet(s) either of the following two criteria:

(a) The entity or entities that have operational control over construction plans and specifications (including approval of revisions) to the extent necessary to meet the requirements and conditions of this general permit; or

(b) The entity or entities that have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a storm water pollution prevention plan for the site or other permit conditions (for example they are authorized to direct workers at a site to carry out activities required by the Storm Water Pollution Prevention Plan (SWPPP) or comply with other permit conditions).

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 storm water runoff.

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

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 either 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.

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 storm water, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency fire fighting 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 storm water pollutants.

Industrial Activity - Any of the ten (10) categories of industrial activities included in the definition of "storm water discharges associated with industrial activity" as defined in 40 Code of Federal Regulations (CFR) §122.26(b) (14) (i)-(ix) and (xi).

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

MS4 Operator - For the purpose of this permit, the public entity 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, storm water, 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 storm water;

(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 storm water 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) - A 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-or-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.

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 storm water 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, routine maintenance activities, and linear utility installation.

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, storm water, 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 storm water;

(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.

Storm Water and Storm Water Runoff - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

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

Storm Water 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 storm water runoff. Structural controls and practices may include but are not limited to: wet ponds, bioretention, infiltration basins, storm water 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 nonnavigable, 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 storm water management program. An example of traditional MS4s includes cities.

Urbanized Area (UA) - An area of high population density that may include multiple small MS4s as defined and used by the U.S. Census Bureau in the 2000 and the 2010 Decennial census.

Waters of the United States - (According to 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 the 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 U.S.. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S.. Waters of the U.S. 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 CWA, the final authority regarding the CWA jurisdiction remains with the EPA.

1.4 Watershed Description, Impaired Water Bodies, and Pollutants of Concern

The City of Sachse is located in North Central Texas in both Dallas and Collin counties, Murphy to the north, Wylie to the northeast, Rowlett to the southeast, and Garland to the southwest and west. The City has a total area of 9.9 square miles, 9.7 square miles of it is land and 0.2 square miles of it (1.62%) is water.

The major water body receiving storm water runoff from Sachse is Lake Ray Hubbard (Segment 0820). Drainage in the Sachse planning area is divided between three water courses. The southwest and west portion of the area drains to Rowlett Creek, the northern and eastern areas drain to Muddy Creek and Maxwell Creek and central portion drains to a branch of Muddy Creek. All five watersheds below discharge into Lake Ray Hubbard.

Watershed Boundaries (Figure 2):

1. Rowlett Creek
2. Maxwell Creek (drain to Muddy Creek)
3. Long Branch of Muddy Creek (drain to Muddy Creek)
4. Willow Lake (drain to Muddy Creek)
5. Muddy Creek

Impaired Water Bodies and Pollutants of Concern:

Section 303(d) of the Federal Clean Water Act requires that the State identify water bodies that do not meet water quality standards. Total Maximum Daily Loads (TMDLs) are then developed for each water body on the list, and include identifying sources of pollutants, defining how much of a pollutant a water body can tolerate while still meeting water quality standards, and specifying actions to create solutions.

The TCEQ 303(d) List identifies water bodies in Texas with known water quality impairments. Muddy Creek was cited on the TCEQ 2006/2008 303(d) List for a water quality impairment along the entire segment due to elevated concentrations of bacteria (fecal coliform). **With the 2010 Texas Integrated Report update in place, Muddy Creek is removed from the 303(d) List.** The City will revise the SWMP as necessary to incorporate any applicable TMDL requirements.

Table 1: Water Quality Indicators

Water Body	2010 Water Quality Concerns	2006 Texas 303 (d) List	2010 Texas 303 (d) List
Rowlett Creek	Bacteria Nitrate	No	No

Muddy Creek	Depressed Dissolved Oxygen Nitrate	Yes	No (removed)
Lake Ray Hubbard	Chlorophyll-a Nitrate	No	No

Source: TCEQ - 2010 Texas Integrated Report

Table 2: Pollutants of Concern for the City of Sachse

Pollutant of Concern	Common Pollutant Sources	Target Audiences
Sediment Litter	• Construction Sites • Streets • Public Storage Area • Unprotected waterways	• Construction Contractors • Builder/Developer
Nutrients	• Fertilizers • Pet Waste • Sanitary Sewer Overflows • Improper Restaurant Practices • Illicit Discharges	• Homeowners • Landscape Contractors • Pet Owners • Public works • Park Department • Food Establishments
Pesticides Herbicides	• Residential Use • Commercial Use • City Park Department Use	• Homeowners • Landscape Contractor • Park Department • Public Works

The two basic methods suggested for predicting the volume of runoff with time and the peak flow rate are the Rational Method (Q = CIA) and the Unit Hydrograph Method. The Rational Method may be used for drainage areas less than or equal to 200 acres. Drainage basins that exceed 200 acres must use the Unit Hydrograph Method. The Soil Conservation Service Technical Release Number 55 is an acceptable Unit Hydrograph Method. Retention and detention are two generalized types of storm runoff storage used to control the rate of runoff. All detention ponds should be designed to empty within a 24 hour period.

The runoff coefficient ranges from 0.20 in undeveloped areas to 0.85 in commercial areas with large area of pavement. Table 3 provides the adopted runoff coefficient values for land uses typically found in Sachse.

Table 3: Runoff Coefficients (C)

Land Use	Coefficient
Commercial	0.80 to 0.85
Industrial	0.70
Single Family Residential (around 65% of total land use area)	0.50
Multi-Family Residential	0.70
Park Areas	0.30
Undeveloped Areas (around 15% of total land use area)	0.20

1.5 Storm Water Permits for City-Owned Facilities

Site-specific storm water management programs are required to be developed, implemented and maintained for certain types of facilities specifically designated in the federal and state storm water regulations. The City of Sachse has no facilities subject to the requirements for site-specific storm water management programs and the TPDES multi-sector general permit.

1.6 Administration

The Director of Community Development Department or his/her duly authorized representative shall administer and coordinate the implementation and enforcement of the provisions of this chapter. Multiple departments within the City will be responsible for implementing portions of the SWMP and for tracking and evaluating the City's success in meeting the plan's measurable goals in Section 2.0. The Community Development and Public Works departments have the main SWMP implementation responsibilities. The selected measurable goals for each BMP will be evaluated on an annual basis or as necessary. The following departments will be involved in the implementation and verification process for this storm water management program:

- Community Development
- Public Works
- Engineering
- Fire
- Parks

The General Permit requires that all NOIs, plans, certifications, reports, and other information prepared be signed by the principal executive officer, a ranking elected official, or a duly authorized representative. For the City, the authorized representative will be the Director of the Community Development.

The City has adopted and enforced the stormwater runoff pollution control, MS4 Phase II program, drainage control, floodplain control, and subdivision ordinances to protect public health and safety, to minimize property damage due to flooding, to limit runoff rate to equitably distribute the cost of necessary drainage improvements, and to minimize the maintenance cost of drainage facilities constructed. Sachse has the authority to enforce its ordinances anywhere within its City limits. The ordinance requires that construction projects implement BMPs for the site to prevent pollutants from entering into the stormwater facilities, and a copy of the SWPPP must be submitted to the City prior to the City issuing a grading or building permit for the project. The ordinance also contains "Notice of Violation, Red Tag, and Right of Entry" sections that establish authority for the City to require responsible persons to cease and eliminate illicit discharges, abate stormwater contamination, and restore impacted property.

The Texas Commission on Environmental Quality (TCEQ) requires that an annual report be submitted that summarizes the previous fiscal year's storm water management activities. The subsequent annual report will likely be due on November 12th of every year, after the City has obtained official coverage under the small Phase II MS4 program. The annual report will summarize the activities performed August 13th of the preceding year through August 12th of the current year. The City will periodically document activities that took place during the fiscal year, regularly determine if measurable goals were achieved, and access the success or failure of the selected BMPs in Section 2. If any additional improved BMP controls are identified for a more effective program as necessary, the City will provide justification for such changes in the Annual Report.

1.7 Assessment of Allowable Non-Storm Water Discharges

The following non-storm water sources may be discharged from the small MS4 and are not required to be addressed in the small MS4's Illicit Discharge and Detection or other minimum control measures. Non-storm water discharges from the list below were evaluated by the City to determine if any known, significant, water quality impacts were created as a result of the discharges. There is no knowledge of adverse impacts to the City's water quality from any of the listed discharges.

(a) Water line flushing (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);

(b) Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;

(c) Discharges from potable water sources that do not violate Texas Surface Water Quality Standards;

(d) Diverted stream flows;

(e) Rising ground waters and springs;

(f) Uncontaminated ground water infiltration;

(g) Uncontaminated pumped ground water;

(h) Foundation and footing drains;

(i) Air conditioning condensation;

(j) Water from crawl space pumps;

(k) Individual residential vehicle washing;

(l) Flows from wetlands and riparian habitats;

(m) Dechlorinated swimming pool discharges;

(n) Street wash water excluding street sweeper waste water;

(o) Discharges or flows from emergency fire fighting activities (fire fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);

(p) Other allowable non-storm water discharges listed in 40 CFR § 122.26(d)(2)(iv)(B)(1);

(q) Non-storm water discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR050000 or the TPDES Construction General Permit (CGP) TXR150000;

(r) Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and

(s) Other similar occasional incidental non-storm water discharges such as spray park water, unless the TCEQ develops permits or regulations addressing these discharges.

2.0 MINIMUM CONTROL MEASURES (MCMs)

In accordance with the new TCEQ's General Permit TXR040000 requirements, the Phase II Rule defines a SWMP as a program consisting of five elements MCMs for **level 2 operator**. These MCMs are expected to achieve significant reductions of pollutants discharged into receiving water bodies when implemented together. The MCMs required by the Phase II Rule include:

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

In this section, the text of specific requirements is taken straight out from TCEQ's Small MS4 General Permit, Part III, section B. The tables provide additional details regarding the implementation plan, measurable goals, a timeframe for implementation, and the person or agency responsible for participating in the implementation. The schedules provided in the tables that cover more than one permit year "Year 1-5" are intended to mean that the City will work equally towards that BMP during each listed year.

2.1 Public Education, Outreach, and Involvement

A. <u>Requirements by the TCEQ</u>

(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

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 Permit TPDES to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

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

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

(2) 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;

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

B. BMPs Action List

- Storm water education program website
- Storm water education materials and local news inserts
- Storm water education program for local schools
- Storm water education materials for restaurant and business owners
- Storm drain stenciling

- Administer a community storm water hotline and email account
- Involve Citizens in Storm Drain Stenciling
- Promote the household hazardous waste disposal participation
- Hold public meetings to receive inputs on the proposed program
- Participate in developing regional opportunities for conducting public education and outreach
- Stream cleanup, community cleanup day, and monitoring

Table 1. Measurable Goals for Public Education, Outreach, and Participation

BMPs ID #	Compliance Activities Measurable Goal(s) and BMP Description	Schedule
BMP 2.1.1	**City stormwater website** • Continue to update the City's storm water website up to 5% per year; • Revise the website as needed; • Provide links to the related stormwater websites. Justification: The City has an existing/active website that has been updated to include a "Storm Water Management" section. This section contains contact information for the public to reach appropriate City personnel, the storm water hotline phone number, and the ability for the public to submit a complaint or information request and to track that request through the system until resolution is obtained. This website continues to serve as an educational tool informing the public, businesses, and construction operators about the stormwater management program in the City. This website also includes stormwater education in general per the TCEQ general permit guidelines. http://www.cityofsachse.com/index.aspx?nid=269 Target: Residents, visitors, employees, businesses, and construction sites. Responsible Department: Community Development Department	On-going Year 1-5 Year 4-5 Year 1-5
BMP 2.1.2	**Stormwater education materials and local newsletter inserts** • Distribute the storm water educational print-out materials at the Public Library, Public Works, City Hall, and other public facilities; • Insert stormwater materials at least 2 times per year in "Sachse Scene" mail-out newsletters and "Annual Drinking Water Quality Report". Justification: Inform and educate the residents to facilitate the proper management of materials and encourage the public to change their behavior that may cause storm water pollution. The City staff will develop then distribute storm water related articles in the City newsletter and Water Quality report instead of insert with utility bills. This method saves the	On-going Year 1-5 Year 1-5

	resources and is more cost effective without changing its goal. Target: Residents, businesses, visitors, and commercial facilities. Responsible Department: Community Development Department	
BMP 2.1.3	**<u>Stormwater educational materials for local schools</u>** • Provide stormwater books and activity booklets for reading to children in elementary schools; • Provide stormwater book covers every year to middle and high schools; • Identify budget requirements to develop additional educational materials as necessary. Justification: Educating students on stormwater and water quality practices will help promote better public awareness. The stormwater materials will be book covers, books for reading, and activity booklets that will educate students every year with a basic knowledge of stormwater control practices and relationships between the City's storm drains, lakes, and rivers. The materials will also be available at the Sachse Public Library. There are 4 elementary schools, 1 middle school, and 1 high school in the City. The City's spending capacity is limited by a yearly budget that affects the quantity of stormwater material distributed each year. Two out of four elementary schools receive the booklets every year. The other two elementary schools receive the booklets every other year. Target: Students, student's parents, school employees. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5 Year 5

BMP 2.1.4	**<u>Storm water educational materials for restaurant and business owners</u>** • Distribute the stormwater management practices materials to existing food establishments once per year; • Provide the information of good housekeeping best management practices for new food establishments; • Start to develop the stormwater management practices materials to business operators such as auto repair shops and gas stations. Justification: The educational materials will make the owners aware of proper disposal methods for oil and grease which will limit the pollutants from the point source causing sewer blockages and manhole overflows. This flyer will be mailed with the invoices for renewal of health permits and distributed to the new food establishments. Target: Food establishment owners and business operators Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5 Year 3
BMP 2.1.5	**<u>Storm drain/outfalls marking</u>** • Continue to mark the storm inlets and some big outfalls with a message: "NO DUMPING! - DRAIN TO WATERWAYS." • Assess the number of storm drain inlets not currently marked excluding inlets on highways; • Identify budget requirements to acquire more storm drain markers, as well as recruit and coordinate volunteers. Justification: Storm drain labeling is a simple and effective educational tool in the prevention of non-point source pollution from entering waterways. The stencils are intended to increase resident's awareness. The City has purchased stencils for use in storm drain marking in the past. The City will order more markers as needed in this second five-year term permit. With 90% of marking already in place, the City will continue to label the existing unmarked storm drain inlets and new storm drain inlets in new subdivisions. Target: Residents, visitors, employees, businesses, and construction sites. Responsible Department: Community Development Department	On-going Year 1-5 Year 3 Year 5

BMP 2.1.6	**<u>Storm water hotline and email account</u>** • Continue to advertise and administer a stormwater hotline and email; • Continue documenting each call and email, dispatching to appropriate department for direct and proper response; • Publish the stormwater hotline number in local Sachse News once a year. Justification: The City has established a stormwater hotline and email account to solicit information related to illicit discharges, complaints, and general comments. This BMP provides a means for concerned citizens to contact the City when they see water quality problems. This hotline number is listed on the City's stormwater website and on educational brochures developed by the City. The City's staff is available to answer questions, receive tips or field complaints. The hotline number is 469-429-4788 Email account is Bho@cityofsachse.com Target: Residents, visitors, employees, businesses, and construction sites. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5 Year 1-5
BMP 2.1.7	**<u>Education/outreach for community activities</u>** • Present the "Enviroscape Watershed Hands-On Model" to the children and students at Fallfest, City Cleanup Day primary location, and at public library; • Distribute posters, brochures, and other stormwater materials at appropriate events such as Fallfest and City Cleanup Day. • Continue to inspire volunteers to plant trees in parts of City that need it most such as parks, along waterways, and rights-of-way. Justification: The City purchased the hands-on model which mainly helps students better understand the sources and prevention of water pollution through visual and active hands-on interaction. The City's staff continues to set a table at appropriate activities that are held throughout the year at City parks and City Hall. The City's Park Department coordinates and encourages the planting of trees along public streets, public facilities, and along waterways. Planting trees is a protective way to act green and help the environment. Target: Residents, students, employees, and construction operators. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5 Year 1-5

BMP 2.1.8	**<u>Promote the household hazardous waste disposal participation</u>** • Continue to promote the household hazardous waste disposal program through Dallas County HHW program; • Handouts available at public facilities at all times; • Continue to advertise the HHW program several times per year in City Hall scrolling information sign. Justification: Encouraging citizens to participate in the household hazardous waste disposal program will reduce the illicit discharges for dumping pollutants down the storm drains. Target: Residents, visitors, employees, business owners. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5 Year 1-5
BMP 2.1.9	**<u>Hold public meetings to receive inputs on the revised SWMP</u>** • One public meeting will be held at City Hall for the revised stormwater management plan before it is finalized. Justification: The public meeting allows citizens to discuss various viewpoints and provide input concerning appropriate stormwater management programs and BMPs. It is an excellent way to inform citizens about stormwater impacts. The City submits a public meeting notice to the local newspaper for publishing. Target: All Responsible Department: Community Development Department	Year 2

BMP 2.1.10	**<u>Participate in developing regional opportunities for conducting public education and outreach</u>** • Continue to participate in developing regional opportunities for conducting public education and outreach; • Participate in the Collin County MS4 forum to share and update the stormwater information. Justification: The City is participating in NCTCOG's regional stormwater program in the development of public education Regionally Developed Initiatives (RDI), and sharing information with other Task Force members. The purpose of the Collin County MS4 forum is to enhance communication and cooperation, identify concerns and goals, and then finding effective solutions. Target: Residents, employees, and construction sites. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5
BMP 2.1.11	**<u>Community Spring Cleanup Day</u>** • Continue to organize a "Community Cleanup Day" along local waterways, around the storm drains, streets, and parks once a year. Justification: This BMP is to encourage individuals and groups to keep storm drains free of debris and to monitor what is entering local waterways. It allows concerned citizens to become directly involved in water pollution prevention. The Parks Department will work with clubs within the City to advertise and obtain volunteers to clean the City's parks, streets, neighborhoods, waterfront, and streams. Members of the City Council, other City Commission and Boards, as well as City staff will participate in the event. Target: Residents, visitors, employees. Responsible Department: Parks and Recreation Department	On-going Year 1-5

BMP 2.1.12	**<u>Construction Pamphlets</u>** • Continue to distribute the construction pamphlets to construction operators before starting construction activities. Justification: The City has purchased a series of pamphlets describing stormwater pollution prevention measures such as reducing soil erosion, managing construction wastes, installation of BMPs, and maintenance of BMPs. The pamphlets and erosion control guidelines will be distributed to construction contractors during pre-construction meetings and construction site inspections and are available at the City's Engineering and Building Permit Department offices. The City's goal is to educate and encourage the operators to prevent stormwater pollution. Target: Construction operators and employees. Responsible Department: Community Development Department	On-going Year 1-5

2.2 Illicit Discharge Detection and Elimination (IDDE)

A. <u>Requirements by the TCEQ</u>

(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.

B. BMPs Action List

- GIS comprehensive stormwater system map
- Dry weather field screening
- Detect and address illicit discharge procedures:

    1. Locate Problem Areas – public complaints; visual screening from manholes and outfalls during dry weather; inspection of priority areas.
    2. Find the Source – dye-testing buildings in problem areas; tracing the discharge upstream in the storm drain system; and other detection methods.
    3. Remove/Correct Illicit Connections – once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action.
    4. Document Action Taken – as a final step, all actions under the plan should be documented. Document actions should be included in annual reports.

- Household hazardous waste disposal program
- Illicit discharge and illegal dumping hotline
- Sanitary sewer overflow and grease interceptor inspections
- Spill response
- Utilize other existing related ordinances for implementation and enforcement.

Table 2. Measurable Goals for Illicit Discharge Detection and Elimination (IDDE)

BMPs ID #	Compliance Activities Measurable Goal(s) and BMP Description	Schedule
BMP 2.2.1	**<u>Stormwater system map</u>** • Continue to update the existing completed stormwater base map; • Assess all existing stormwater GIS layers for improving database system. Justification: The comprehensive stormwater map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. The stormwater base map shows the location of all outfalls and the name and location of all waters of the United States that receive discharges from those outfalls. Knowing the location of all outfalls allows for better monitoring and inspection. Included layers in the GIS mapping system are the stormwater basins, zonings, outfalls, ponds, wetland, lakes, floodplains, contours, parcels, aerial, and priority sensitive areas. Responsible Department: Community Development Department Engineering Department	On-going Year 1-5 Year 4-5
BMP 2.2.2 **Extra for level 2**	**<u>Dry weather field screening</u>** • Conduct dry weather screening for 50% of the citywide stormwater selected outfalls per year; • Attend the NCTCOG regional dry weather screening protocol training as needed; • Assess the City's outfalls and update inventory list of outfalls. Justification: Dry weather screening will provides the initial level of detection for illegal connections to the MS4. The stormwater map will combine field screening with the verification of outfall locations. The City has developed procedures for visually screening outfalls during dry weather and is no longer conducting field tests. The City staff will continue to visit over 100 selected outfalls during dry weather periods to make visual inspection. If there is an indication of a pollutant, further investigation by City staff will be required. Staff will use the "Outfall Reconnaissance Inventory" (ORI) field sheet for any new outfall. Responsible Department: Community Development Department Public Works Department	On-going Year 1-5 Year 1-5 Year 5

BMP 2.2.3	**<u>The household hazardous waste disposal program</u>** • Continue to advertise and promote the household hazardous waste collection program and increase in participation. Justification: Participation in the household hazardous waste disposal program will increase public awareness, thereby help to reduce the illicit discharges and the dumping of pollutants down the storm drains from homes. Responsible Department: Community Development Department	On-going Year 1-5
BMP 2.2.4	**<u>Detect and address illicit discharges plan</u>** • Continue to use the IDDE "Field Investigation Guide" to identify and eliminate illicit discharges; • Continue to update inventory list of priority sensitive sites for inspection; • Inspect half of the City's priority areas in year 4, other half in year 5; • Continue to address the allowable non-stormwater discharges and prohibited discharges in Attachment A of the SWPPP; • Coordinate with Dallas County Health Department to develop a better inspection procedure to prevent and correct any leaking on-site sewage disposal systems. Justification: The City created a program to detect and respond to illicit discharges, including illegal dumping along with the IDDE "Field Investigation Guide". The visual inspection may be conducted concurrent with the outfall inspections or as requested by the private landowners. This plan details the steps to investigate, report, correct, and document an illicit discharge as quickly as possible. The City contracts with Dallas County Health Department for permitting and conducting yearly inspection of all on-site sewage disposal systems. Responsible Department: Community Development Department	Year 1-5 Year 2-3 Year 4-5 Year 1-5 Year 4-5

BMP 2.2.5	**<u>Illicit discharge hotline and City web based request tracker</u>** • Continue to advertise the hotline on the City's website, the local newspaper, flyers, and an insert in the mail-out of City Newsletters; • Continue to administer the web based E-Services for "Report A Concern". Justification: Citizens can use the hotline to report illegal discharges. The City's effort for advertising the hotline will improve public involvement and serve as an educational tool. The City will also track complaints/calls by the public through the City's E-Services website. The citizens can use the request tracker to report their concerns. The location of the illicit discharges will be tracked and used to determine area of concerns to be targeted for additional outreach and more frequent monitoring. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5
BMP 2.2.6	**<u>Sanitary sewer overflow and grease interceptor inspection</u>** • Continue to conduct the sanitary sewer inspection on a yearly regular basis; • Continue to conduct grease interceptors inspection for business a minimum one time per year. Justification: City crews will continue to conduct regular inspections of the sanitary sewer system in an effort to reduce the amount of time that a damaged portion of sanitary sewer can act as an illicit discharge to a waterway before being located and repaired; the City's environmental health inspector will conduct an annual inspection on all grease interceptors for the proper handling of liquid wastes and maintaining good cleaning records. Responsible Department: Public Works Department Community Development Department	On-going Year 1-5 Year 1-5
BMP 2.2.7	**<u>Spill response</u>** • Continue implementation of existing spill response procedures and training; • Track number of responses from spills and hazmat incidents, and restock spill control kits yearly. Justification: The response keep pollutants from entering the storm drain system. The City Fire Department is prepared for emergencies and has emergency plans that should include response to hazardous spills using spill control kits that meet a variety of situations. With a large or impacted spill, the Fire Department, Environmental Health Officer, Police, and Public Works Department all respond to the spill with procedures for clean-up, limiting	On-going Year 1-5 Year 1-5

	access to the area, providing and wearing protective equipment, notifying others, and other response related tasks. Responsible Department: Fire Department Public Works Department	

2.3 Construction Site Stormwater Runoff Control

A. Requirements by the TCEQ

(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 the program fully implemented by the end of this permit term.

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

(b) Requirements for all Permittees

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

(1) All permittees shall 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 inspection 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.

B. <u>BMPs Action List</u>

- SWPPP development program for construction sites
- iSWM Design Manual for Construction
- Provide a guideline and education material for operators
- SWPPP erosion control plan review, site inspections, and enforcement
- Address concerns submitted by citizens

Table 4. Measurable Goals for Construction Site Runoff Control

BMPs ID #	Compliance Activities Measurable Goal(s) and BMP Description	Schedule
BMP 2.3.1	**<u>SWPPP development program for construction sites</u>** • Continue to implement the existing SWPPP development program for construction sites in "Attachment B" of the SWMP. Justification: The City has established procedures to implement the SWPPP development program and track construction permits. The program requires the operators of construction activities to prepare a SWPPP and ensure the project specifications allow or provide adequate BMPs to be developed and modified as necessary to meet the requirements of General Construction Permit. The SWPPP designer must incorporate or respond to any comments from the City staff concerning the submitted SWPPP in order to meet local requirements and stay in compliance with the General Construction Permit. Responsible Department: Community Development Department Engineering Department	On-going Year 1-5
BMP 2.3.2	**<u>iSWM Design Manual for Construction</u>** • Continue to implement the iSWM Design Manual for Construction; • Monitor changes to the iSWM Design Manual for Construction. Justification: The NCTCOG Construction BMPs Manual is to provide technical guidance to municipalities, property owners, developers, engineers, and contractors for compliance with the requirements of the TPDES General Construction Permit. BMPs in this manual provide tools such as check dams, chemical control areas, construction entrances, construction sequencing, geotextiles, mulching, permanent seeding, riprap, preserving natural vegetation, silt fence, inlet protection, sediment traps, land grading, slope drain, temporary diversion dikes, equipment and vehicle maintenance, waste management, and inspection log for the designer to select the appropriate BMPs and properly locate them on the site, effectively reducing erosion and sediment loss. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5

BMP 2.3.3	**<u>Provide a guideline and education materials for operators</u>** • Continue to provide a guideline or other regulatory mechanism requiring the proper implementation of sediment and erosion controls to construction operators; • Provide an information packet outlining stormwater program requirements to the construction builders. Justification: To provide information to responsible operators for implementing and maintaining the erosion control measures in order to minimize the erosion and the transport of silt, earth, topsoil, and solid wastes by water runoff or construction activities for construction sites with land disturbances greater than or equal to one acre. Responsible Department: Community Development Department	On-going Year 1-5 Year 1-5
BMP 2.3.4	**<u>Erosion control plan review, site inspection, and enforcement</u>** • Require a pre-construction meeting for all public and private projects with a land disturbance greater than or equal to one acre or less than one acre if part of a larger common plan of development; and continue to update an inventory of all active construction sites; • Continue to require a review of the erosion control plan in SWPPP books, conduct site inspections, and initiate enforcement; • Require a first initial BMP inspection for all permitted construction regarding erosion and waste control before land disturbance; • Frequently inspect all active construction sites for erosion control on a weekly basis and contact construction operators to maintain BMPs during construction; • Send stormwater inspector(s) to attend NCTCOG "Storm Water Pollution Prevention Practices During Construction" training. Justification: The City has developed procedures for enforcement and conducts inspections during the construction of all regulated projects. Site inspections give the MS4 operator an opportunity to provide additional guidance, issue warnings, or assess penalties, and corrective actions. Responsible Department: Community Development Department Engineering Department	On-going Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 3&5

BMP 2.3.5	**<u>Address concerns submitted by citizens</u>** • Establish and implement procedures for and respond to concerns submitted by the public regarding construction activities. Justification: The Public can help identify instances of noncompliance. The City will respond to every complaint or concern. The staff member receiving concern will contact the appropriate response personnel. Responsible Department: Community Development Department Engineering Department	On-going Year 1-5

2.4 Post-Construction Stormwater Management in New Development and Redevelopment

Since the City of Sachse has near effectively reached its full build-out capacity, large new developments that will appreciably affect the quantity and quality of stormwater discharge to stormwater system is unlikely. Therefore, the City will address the requirements of this MCM, but it will not be a major focus of the City's SWMP as the other MCMs will have more impact on addressing stormwater pollution runoff control.

A. <u>Requirements by the TCEQ</u>

(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 Permittees

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.

B. BMPs Action List

- The comprehensive drainage and stormwater control standards
- iSWM Design Manual for Site Development
- Long-term operation and maintenance of structural BMPs
- Land use and zoning ordinances
- Preserve streams and floodplains

Table 5. Measurable Goals for Post-Construction Storm Water Management

BMPs ID #	Compliance Activities Measurable Goal(s) and BMP Description	Schedule
BMP 2.4.1	**The comprehensive drainage and stormwater control standards** • Continue to implement the existing comprehensive drainage and stormwater control standards; • Provide educational materials to developers for every proposed development such as "The Develop-Naturally!" brochure; • Review existing drainage criteria and standards as needed; Justification: The City continues to use the comprehensive drainage and stormwater control criteria to require all regulated new and redevelopment projects to evaluate the need for and design of structural BMPs such as detention BMPs and vegetative practices; to perform a downstream hydrologic analysis; and to control the peak runoff of design storm events. Responsible Department: Engineering Department Community Development Department	Year 1-5 Year 1-5 Year 4-5
BMP 2.4.2	**iSWM Design Manual for Site Development** • Continue to support the development of the NCTCOG's iSWM Design Manual; • Consider to adopt some parts of the NCTCOG's iSWM Design Manual. Justification: The City participated in a regional effort by the NCTCOG in preparation of an iSWM Design Manual for the North Central Texas region. The manual includes stormwater quality criteria as part of the drainage design, includes structural BMPs, and the use of non-structural alternatives. Responsible Department: Engineering Department Community Development Department	Year 1-5 Year 5

BMP 2.4.3 **Part of Good House-keeping MCM**	**<u>Long-term operation and maintenance of structural BMPs</u>** • Conduct an inventory of structural BMPs runoff control devices; • Develop a GIS system to integrate the location of these control devices with schedules for inspection and maintenance; • Conduct one inspection of each structural control device per year; • Consider the installation of the new "Curb Companion Inlet Protection" devices in some areas in City. Justification: There are structural controls located throughout the municipality that are owned and operated by both public and private entities. City will conduct inspections of both public and private storm water management BMPs to ensure proper operation and corrective maintenance actions on an annual basis. The inlet protection device is designed to protect storm sewer systems from erosion, debris, and floatable wastes. Responsible Department: Public Works Department Engineering Department Community Development Department	Year 3 Year 3 Year 3-5 Year 5
BMP 2.4.4	**<u>Landuse master plan and zoning ordinance</u>** • Continue to study placing additional requirements on specific land uses and zoning that are likely to produce higher than normal pollutant concentration, including gas stations, automotive service and salvage yards, etc; • Continue to implement the subdivision regulations for requirements of natural open space and dedicated park area; • Evaluate existing land use plan and zoning codes as needed; and then provide recommendations considering stormwater management practices with green low impact techniques, narrower streets, and reduction in impervious cover for new and redeveloped areas to protect water quality. Justification: A comprehensive landuse plan and zoning ordinance can promote improved water quality by guiding the growth of a community away from sensitive areas and by restricting certain types of growth to areas that can support it without compromising water quality. The City requires the dedication of parks and open space as a condition of approval for developments. The preservation of open space serves to reduce post-development runoff pollutions. Responsible Department: Community Development Department Engineering Department	Year 1-5 Year 1-5 Year 5

BMP 2.4.5	**Preserve streams and floodplains** • Continue to enforce the regulations for floodplain hazard areas; • Require hydraulic analyses of streams to determine flow capacity; • Use the landscape ordinance to preserve and protect as many trees as possible. Justification: Natural streams, floodplains and riparian buffers along streams are vital to the success of natural system. Using the floodplain regulation is the key to control the alteration of natural floodplain, stream channels, grading/filling conditions, and natural protection barriers. Responsible Department: Community Development Department Engineering Department	Year 1-5 Year 1-5 Year 1-5

2.5 Pollution Prevention and Good Housekeeping for Municipal Operations

A. Requirements by the TCEQ

(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 permitees 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.

(3) Disposal of Waste Material - Waste materials removed from the small MS4 must be disposed of in accordance with 30 TAC Chapters 330 or 335, as applicable.

(4) Contractor Requirements and Oversight

a. Any contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facilityspecific 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.

(5) Municipal Operation and Maintenance Activities

a. Assessment of permittee-owned operations

All permittees shall evaluate operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater, including but not limited to:

(i) Road and parking lot maintenance may include such areas as pothole repair, pavement marking, sealing, and re-paving;

(ii) Bridge maintenance may include such areas as re-chipping, grinding, and saw cutting;

(iii) Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and

(iv) Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.

b. All permittees shall identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene, toluene, ethyl benzene, and xylenes; sediment; and trash).

c. All permittees shall develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from the above activities. These pollution prevention measures may include the following examples:

(i) Replacing materials and chemicals with more environmentally benign materials or methods;

(ii) Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and

(iii) Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.

d. Inspection of pollution prevention measures - All pollution prevention measures implemented at permittee-owned facilities must be visually inspected at a frequency determined by the permittee to ensure they are working properly. A log of inspections must be maintained and made available for review by the TCEQ upon request.

(6) Structural Control Maintenance

If BMPs include structural controls, maintenance of the controls must be performed at a frequency determined by the permittee and consistent with maintaining the effectiveness of the BMP.

(c) 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.

(3) 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.

(4) 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.

(5) 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.

(6) 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.

(7) 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.

B. <u>BMPs Action List</u>

- Municipal employee training education program
- Annual inspection of all structural runoff control devices
- Annual inspection of stockpiles, storage, and material handling areas
- Street sweeping and roadway maintenance
- Inspection of the sewer overflows and septic tanks (OSSF)
- Fleet and building maintenance program
- Implementation of the "Standard Operation Procedures" (SOPs)
- Oversight of contractor activities

C. Permittee-owned Facilities and Control Inventory in City

- Equipment storage and maintenance facilities;
- Materials storage yards;
- Buildings, including schools, libraries, police stations, fire stations, and office buildings;
- Parking lots;
- Public works yards;
- Street repair and maintenance sites;
- Vehicle storage and maintenance yards; and
- Structural stormwater controls.

Table 5. Measurable Goals for Pollution Prevention and Good Housekeeping

BMPs ID #	Compliance Activities Measurable Goal(s) and BMP Description	Schedule
BMP 2.5.1	**Municipal employee training education program** • Send personnel to participate in regional cooperative training for stormwater management at least once per year; • Provide training for engineering and other staff involved in construction activities a minimum of one time per year; • Provide stormwater pollution prevention and waste management training one time per year for City's crews. • Train related employees on proper use and disposal of pesticides, herbicides and fertilizers one time per year • Evaluate appropriateness of this training program. Justification: The City has established an employee training program for the staff regarding the importance of stormwater pollution prevention and good housekeeping. New employees will also be trained on its contents. Sign-in sheets will be required at all training to track and document the training of City employees. Video and materials are developed or acquired from NCTCOG or others MS4s. Responsible Department: Community Development Department Public Works Department	Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 5

BMP 2.5.2	**<u>Inspection of structural runoff control devices</u>** • Continue to inspect City maintained structural runoff control devices a minimum of once per year; • Perform maintenance and clean-up as necessary; • Implement procedures to monitor private industry structural runoff controls devices through documented inspection. Justification: The Public Works Department will inspect all identified structural pollution control devices on City property and rights-on-way, and prescribe a maintenance schedule as necessary. The stormwater runoff control devices are included stormwater inlets, dry basins and wet basins with outlet control structures, swales, filter strips, buffers, catch basins, check dams, outfalls, and headwalls, Responsible Department: Public Works Department Engineering Department Community Development Department	Year 1-5 Year 1-5 Year 4-5
BMP 2.5.3	**<u>Inspection of exposed stockpile, storage, and material handling areas</u>** • Locate and inspect all stockpiles, storage, and material handling areas on City's properties a minimum of once per year; • Document number of spills and review procedures in place to prevent spills. Justification: Facilities can contribute contaminants to runoff when loading, unloading, and storing materials. Improper storage and sloppy techniques may result in an illegal discharge. Protection of materials will reduce the exposure of materials to rainfall and runoff. Responsible Department: Public Works Department Community Development Department	Year 1-5 Year 1-5

BMP 2.5.4	**<u>Street sweeping and roadway maintenance</u>** • Continue to monitor State Highway (S.H.) 78 street sweeping operations by TxDOT; • Clean and sweep streets for repair projects and as necessary; • Conduct quarterly visual inspections of the storm sewer inlets and cleaning inlets as necessary; • Identify the common areas for illegal dumping and post signs. Justification: The City will monitor S.H. 78 street sweeping operations by TxDOT twice annually in an efforts to reduce the amount of sediment and trash from reaching the stormwater system and water resources. Street sweeping operation by City is expanded with this renewal permit. The City will continue to identify areas where more frequent cleaning of street is necessary. Responsible Department: Public Works Department	Year 1-5 Year 1-5 Year 1-5 Year 1-5
BMP 2.5.5 **Part of IDDE MCM**	**<u>Inspection of the sanitary sewer overflows and septic system controls (OSSF)</u>** • Inspect all known high priority selected sewer main holes at least once per year; • Monitor daily for sanitary sewer overflows; • Develop a system to monitor and track all septic system maintenance activities; • Track the number and location of septic systems. Justification: The City will continue to inspect all selected/mapped outfalls, sediments basins, and ponds within the City's stormwater system on a rotating schedule basis. Cleaning procedures will be based on inspection reports. The Public Works Department will also ensure proper maintenance and repair of sanitary sewer lines to minimize sanitary sewer overflows. Dallas County Health Service Division will continue to perform all inspections for OSSF in City on a yearly basis. Responsible Department: Community Development Department Public Works Department Dallas County Health Service Division	Year 1-5 Year 1-5 Year 4-5 Year 4-5

BMP 2.5.6	**<u>Fleet and building maintenance program</u>** • Conduct routine inspections of all fleet vehicles and heavy equipment to monitor for fluid leaks; • Continue to use off-site commercial wash and repair facilities; • Regularly inspect all tanks, containers and vessels to ensure their physical integrity; • Track all spills and document clean-up on daily basis; • Collect the fluids for proper disposal or recycling; • Monitor use and maintenance procedures of fertilizers, pesticide, and herbicide dispensing equipment; • Continue to train employees in safe landscaping, lawn care, and pest management techniques; • Evaluate the effectiveness of current practices and identify recommendations for improvements. Justification: The Public Works Department has developed a maintenance program for fleet vehicles and operations/construction equipment. This program describes the number and types of vehicles, the recommended maintenance checklists, and record keeping practices. The City will also provide training material and workshops to staff to help reduce stormwater pollution during parks, fleet, and building maintenance. Responsible Department: Public Work Department Parks Department	Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 1-5 Year 5
BMP 2.5.7 **Extra for level 2**	**<u>Developing Standard Operation Procedures (SOPs)</u>** • Continue to implement the existing SOPs; • Evaluate the SOPs effectiveness and update it as necessary. Justification: Upon completion of the SOPs, the standard will be distributed to appropriate City personnel and training will be conducted on the applicable portions of the standard with applicable personnel at least annually and new incoming employees. Responsible Department: Community Development Department Public Works Department Parks Department	On-going Year 1-5 Year 5

BMP 2.5.8	**<u>Oversight of Contractor Activities</u>** • Create/formalize procedures for contractor activities with all related department supervisors; • Implement/standardize procedures and provide a written reference SOPs "BMP 2.5.7" document with any additional stormwater control measures for contractors to consult regarding good housekeeping procedures. Justification: Implementing this practice into the contractor operation of the City facilities will help to keep the municipal stormwater system clean and also serve to keep the City in compliance with TCEQ's regulations. The proper implementation of this practice will show a positive impact and clear responsibility on each City department. Each department supervisor will also maintain a list "Contractor Maintenance Log" of municipal operation and maintenance (O&M) activities from contractors beside in-house activities. Responsible Department: Community Development & Engineering Departments (combined) Public Works Department Parks Department	Year 3 Year 4-5

3.0 RECORDKEEPING, REPORTING, AND GIS SUPPORT

3.1 Recordkeeping requirements

All records required by the TPDES permitting authority must be kept for a period of at least 3 years, or for the remainder of the term of the general permit, whichever is longer. The records are also available to the public at reasonable times during regular business hours if requested to do so in writing. The records need not be submitted to the TPDES permitting authority unless the permittee is requested to do so. The City will maintain all records. A copy of the TPDES general permit, a completed NOI, and an up-to-date of the SWMP will be maintained at the Community Development Department, City of Sachse.

3.2 Annual Report requirements

The City of Sachse MS4 that will be regulated under the Storm Water Phase II regulations must submit a concise annual report to the Executive Director of the TCEQ within 90 days of the end of each permit year. The annual report must address the previous year for all BMPs. The calendar years will begin on the anniversary date of permit issuance and last for one year. The operator must also make a copy of the annual report readily available for review by TCEQ personnel up on request.

3.3 GIS Support

A geographic information system (GIS) is an important tool in the development and implementation of a comprehensive storm water management program. The City addresses the steps necessary to enhance the GIS for use in developing and mapping the regulated outfalls, floodplain, problem areas, and others.

4.0 COMPLIANCE MONITORING

4.1 Right of Entry: Inspection and Sampling

The Director shall have the right to enter the premises, after a legal notification and property owner permission, of any person discharging storm water to the small municipal separate storm sewer system (MS4s) or to waters of the United States to determine if the discharger is complying with all requirements of this Article, and with any state or federal discharge permit, limitation, or requirement. Dischargers shall allow the Director ready access to all parts of the premises for purposes of inspection, sampling, records examination and copying, and for the performance of any additional duties pertaining to stormwater. Dischargers shall make available to the Director, upon request, any SWPPPs, modifications thereto, self-inspection reports, monitoring records, compliance evaluations, Notice of Intent, and any other records, reports, and other documents related to compliance with this Article and with any state, TCEQ or federal discharge permit.

(a) Where a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make necessary arrangements so that, upon presentation of suitable identification, the Director will be permitted to enter without delay for the purposes of performing the responsibilities of the Director.

(b) The Director shall have the right to set up on the discharger's property, or require installation of, such devices as are necessary to conduct sampling and metering of the discharger's operations.

(c) The Director may require any discharger contributing a harmful quantity of a pollutant to the MS4s or waters of the United States to conduct specified sampling, testing, analysis, and other monitoring of its storm water discharges, and may specify the frequency and parameters of any such required monitoring.

(d) The Director may require the discharger to install monitoring equipment as necessary at the discharger's expense. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure their accuracy.

(e) Unreasonable delays or obstructions in allowing the Director access to the discharger's premises shall be a violation of this Article shall be promptly removed by the discharger at the written or verbal request of the City and shall not be replaced. The costs of clearing such access shall be borne by the discharger.

4.2 Search Warrants

If the Director has been refused access to any part of the premises from which storm water is discharged, and the Director is able to demonstrate probable cause to believe that there may be a violation of this Article or any state or federal discharge permit, limitation, or requirement, or that there is a need to inspect or sample as part of a routine inspection and sampling program of the City designed to verify compliance with this Article or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the City may seek issuance of a search warrant from any court of competent jurisdiction.

5.0 ADMINISTRATIVE ENFORCEMENT REMEDIES

5.1 Notification of Violation

When the Director finds that any person has violated, or continues to violate, any provision of this Article, or any order issued hereunder, the Director may serve upon that person a written Notice of Violation. Within ten (10) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention of reoccurrence thereof, to include specific required actions, shall be submitted by the alleged violator to the City. If the alleged violator denies that any violation occurred or contends that no corrective action is necessary, an explanation of the basis of any such denial or contention shall be submitted to the Director within ten (10) days of receipt of the notice. Submission of an explanation or plan in no way relieves the alleged violator of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this section shall limit the authority of the Director to take any action, including emergency action or any other enforcement action, without first issuing a Notice of Violation.

5.2 Emergency Cease and Desist Orders

(a) When the Director finds that any person has violated, or continues to violate, any provision of this Article, or any order issued hereunder, or that the person's past violations are likely to recur, and that the person's violation(s) have caused or contributed to an actual or threatened discharge to the MS4s or waters of the United States which reasonably appears to present an imminent or substantial endangerment to the health or welfare of persons or to the environment, the Director may issue an order to the violator directing it immediately to cease and desist all such violations and directing the violator to:

(1) Immediately comply with all Article requirements; and

(2) Take such appropriate preventive action as may be needed to properly address a continuing or threatened violation, including immediately halting operations and terminating the discharge.

(b) Any person notified of an emergency order directed to it under this subsection shall immediately comply and stop or eliminate its endangering discharge. In the event of a discharger's failure to immediately comply voluntarily with the emergency order, the Director may take such steps as deemed necessary to prevent or minimize harm to the MS4s or waters of the United States, or endangerment to persons or to the environment, including immediate termination of a facility's water supply, sewer connection, or other municipal utility services. The Director may allow the person to recommence its discharge when it has demonstrated to the satisfaction of the Director that the period of endangerment has passed, unless further termination proceedings are initiated against the discharger under this Article. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the cause of the harmful discharge and the measures taken to prevent any future occurrence, to the Director within five (5) days of receipt of the emergency order. Issuance of an emergency cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the violator.

5.3 "*Red Tags*"

Whenever the Director finds that any operator of a construction site has violated, or continues to violate, any provision of the City Code, Sec. 6-12 §§ 2.3, or any order issued thereunder, the Director may order that a "**Red Tag**" be issued to the operator, posted at the construction site, and distributed to all City departments and divisions whose decisions affect any activity at the site. Unless express written exception is made by the Director, the "**Red Tag**" shall prohibit any further construction activity at the site and shall bar any further inspection or approval by the Director associated with a building permit, grading permit, subdivision plat approval, site development plan approval, or any other City approval necessary to commence or continue construction or to assume occupancy at the site. Issuance of a "**Red Tag**" order shall not be a bar against, or a prerequisite for, taking any other action against the violator.

6.0 RIGHT TO RECONSIDERATION, HEARING, AND APPEAL

6.1 Reconsideration and Hearing

(a) Any person subject to an Emergency Cease and Desist Order under the City Code, Sec. 6-12 §§ 5.2, or a Red Tag Order under Sec. 6-12 §§ 5.3 of this Article may file a written request to the Director to reconsider the basis for the order within twenty (20) days of the affected person's notice of issuance of such an order.

(b) Failure to submit a timely written request for reconsideration shall be deemed to be a waiver of any further right to administrative reconsideration or review of the order.

(c) In its written request, the requesting party must indicate the provisions of the order objected to, the reasons for the objection(s), any facts that are contested, the evidence that supports the requester's view of the facts, any alternative terms of an order that the requester would accept, and whether the requesting party requests a hearing on its request.

(d) The effect of any Red Tag Order shall be stayed pending the Director's reconsideration of the request, and any hearing thereon, unless the Director expressly makes a written determination to the contrary. The effectiveness of any Emergency Cease and Desist Order under Sec. 6-12 §§ 5.2 shall not be stayed pending the Director's reconsideration, or any hearing thereon, unless the Director expressly and in writing stays the emergency order.

(e) Within twenty (20) days of the submittal of a request for reconsideration, the Director shall either (1) grant the request and withdraw or modify the order accordingly; (2) deny the request, without hearing if no material issue of fact is raised; or (3) if a hearing has been requested and a material issue of fact has been raised, set a hearing on the request.

(f) Written notice of any hearing set by the Director pursuant to subsection 1.(e) above shall be served on the requesting party personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any authorized representative of the requesting party.

(g) An authorized Director of the City may conduct the hearing and take evidence, or the Director may designate any employee of the City or any specially-designated attorney or engineer to:

(1) Issue in the name of the Director notices of hearing requesting the attendance and testimony of witness and the production of evidence relevant t any matter involved in the hearing;

(2) Take evidence;

(3) Transmit a report to the evidence and hearing, including transcripts and other evidence, together with recommendations to the Director for action thereon.

(h) At any hearing held pursuant to this Subsection, testimony taken shall be under oath and recorded. Any party is entitled to present the party's case or defense by oral or documentary evidence and to conduct such cross-examination as may be required for a full and true disclosure of the facts. A transcript will be made available to any party to the hearing upon payment of the usual charges thereof.

(i) After the Director conducting the hearing has reviewed the evidence, the Director shall either (1) grant the request; (2) deny the request; or (3) grant the request in part and deny it in part. The Director may modify the order as is appropriate based upon the evidence and arguments presented at the hearing and the action of the Director on the request. Further orders and directives as are necessary and appropriate may be issued.

6.2 Appeal

(a) Any person whose request for reconsideration by the Director has not been granted in its entirely and who remains adversely affected by the Director's order may appeal the action to the City Council by filing a written appeal with the City Council within twenty (20) days of the person's notice of the Director's adverse action on the request for reconsideration.

(b) Failure to submit a timely written appeal to the City Council shall be deemed to be a waiver of further administrative review.

(c) In its written appeal to the City Council, the appealing party shall indicate the particular provisions of the order objected to, the particular determinations of the Director that are contested, the reasons that the Director's order or determinations are contested, and any alternative order that the appealing party would accept.

(d) The effect of the Director's order, as issued or modified, shall not be stayed pending the appeal to the City Council, unless the City Council expressly so states.

(e) Within thirty (30) days of the submittal of a written appeal to the City Council, the City Council shall hear and consider the appeal in open meeting. The appellant shall be notified at least twenty (20) days in advance of the date and time of the City Council meeting at which the appeal will be heard and considered.

(f) The appellant shall have the right to public appearance before the City Council to present oral and written statements in support of the appeal. If the City Council wishes to consider testimony of witness or other evidence beyond that in the record of any hearing before the authorized Director, the City Council may remand the matter to that Director for the taking of additional testimony or other evidence. During the public appearance, the appellant shall have the right to examine all evidence considered in issuing any Order under this section,

the right to call and examine witness, and to question any witness presented by the Director, and shall have the right to present written or oral argument relevant to the appeal.

(g) Upon consideration of any written and oral statements made to the City Council, as well as the record made before the Director, the City Council shall act on the appeal by affirming, vacating, or modifying the order of the Director, or by remanding the matter to the Director for further action.

(h) Following final action by the City Council on the appeal, any adversely affected party may challenge such action by the City Council in an appropriate court of competent jurisdiction.

7.0 JUDICIAL ENFORCEMENT REMEDIES

7.1 Civil Remedies

Pursuant to Sec. 54.012(5) of the Texas Local Government Code, the provisions of Subchapter B of Chapter 54 of the Texas Local Government Code are hereby implemented for any violation of this Article, any such violation being classified by the Texas Penal Code as a Class C misdemeanor, or that the Director may seek civil penalties and injunctive relief under the provisions of Subchapter B of Chapter 54.

7.2 Criminal Penalties

(a) Except as otherwise provided in this Article, any person who has violated any provisions of this Article, or any order issued hereunder, shall be strictly liable for such violation regardless of the presence or absence of a culpable mental state and shall, upon conviction, be subject to a fine of not more than $2000 per violation, per day, or any greater fine authorized by State statute.

(b) Any person who has knowingly made any false statement, representation, or certification in any application, record, report, plan, or other documentation files, or required to be maintained, pursuant to this Article, or any order, issued hereunder, or who has falsified, tampered with, or knowingly rendered inaccurate any monitoring device or method required under this Article shall, upon conviction, be subject to a fine of not more than $2000 per violation, per day, or any greater fine authorized by State statute.

(c) In determining the amount of any fine imposed hereunder, the court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the violation, corrective actions by the violator, the compliance history of the violator, the knowledge, intent, negligence, or other state of mind of mind of the violator, and any factor as justice requires.

7.3 Civil Suit under the Texas Water Code

Whenever it appears that a violation or threat of violation of any provision of Section 26.121 of the Texas Water Code, or any rule, permit, or order of the Texas Water Commission, has occurred or is occurring within the jurisdiction of the Director, exclusive of its extraterritorial jurisdiction, the Director, in the same manner as the Texas Water Commission, may have a suit instituted in a state district court through its City Attorney for the injunctive relief or civil

penalties or both authorized in Subsection (a) of Section 26.123 of the Texas Water Code, against the person who committed or is committing or threatening to commit the violation. This power is exercised pursuant to Section 26.124 of the Texas Water Code. In any suit brought by the Director under this subsection, the Texas Water Commission is a necessary and indispensable party.

7.4 Remedies Nonexclusive

The remedies provided for in this Article are not exclusive of any other remedies that the Director may have under state or federal law or other City ordinances. The Director may take any, all, or any combination of these actions against a violator. The Director is empowered to take more than one enforcement action against any violator. These actions may be taken concurrently.