

City of Southlake

**1400 Main St.
Southlake, Texas 76092**

TPDES Permit # TXR040007

Storm Water Management Plan

for the City of Southlake

June 2014

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ACRONYMS

BMP	Best Management Practice
CGP	Construction General Permit
CWA	Clean Water Act
EPA	Environmental Protection Agency
GIS	Geographic Information Systems
IDDE	Illicit Discharge Detection and Elimination
iSWM	Integrated Stormwater Management
KSB	Keep Southlake Beautiful
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OSSF	On-Site Sewage Facility
SIC	Standard Industrial Classification
SPIN	Southlake Partnership in Neighborhoods
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
SWMP	Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TCEH	Tarrant County, Environmental Health Division
TCEQ	Texas Commission on Environmental Quality
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System

DEFINITIONS

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

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

Discharge – when used without a qualifier, refers to the discharge of stormwater runoff or certain non-stormwater discharges as allowed under the authorization of this General Permit.

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

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

Municipal Separate Storm Sewer System (MS4) – the separate storm sewer system owned and operated by the City of Southlake. The MS4 includes all *Drainage Ways*, stormwater *Conveyances*, bar ditches, swales, and streets owned and operated by the City of Southlake or any private *Drainage Way* that drains to or contributes flow to the public drainage system and conveys stormwater discharges to the surface water of the state.

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

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

Permitting Authority – for the purposes of this General Permit, the Texas Commission on Environmental Quality.

Redevelopment – alterations of a property that change 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.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage.

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

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

BACKGROUND INFORMATION

FEDERAL REGULATION

The Clean Water Act (CWA) establishes environmental programs to address water pollution. This law establishes the National Pollutant Discharge Elimination System (NPDES) program to protect the Nation's waters. The law also directs the U.S. Environmental Protection Agency (EPA) to issue rules on how to implement this law. Under the NPDES program a municipal stormwater program was developed to address pollution from non-point sources, or sources not easily identified. This program requires that the operator of a storm drainage system:

- reduce the discharge of pollutants to the maximum extent practicable;
- protect water quality;
- satisfy the appropriate water quality requirements of the Clean Water Act; and,
- manage stormwater quality activities through a Stormwater Management Plan (SWMP).

STATE REGULATION

SMALL MS4 GENERAL PERMIT #TXR040000

General Permit # TXR040000 (Phase II Permit) was finalized and issued August 13, 2007. By submitting an application to TCEQ, which includes a Notice of Intent (NOI) and Stormwater Management Plan (SWMP) the City of Southlake acknowledged the regulatory authority of the TCEQ and agreed to comply with General Permit TPDES # TXR040000. The permit issued in 2007 expired five years after the date of issuance (August 13, 2012). The City continued to operate under the expired General Permit until the issuance of a renewal of General Permit TPDES #TXR040000 on December 11, 2013. The City will continue to implement measures from the previous SWMP until this revised SWMP has been approved by the TCEQ.

IMPAIRED WATER BODIES AND TMDL REGULATION

Section 303(d) of the federal Clean Water Act requires all states to identify waters that do not meet, or are expected to not meet, applicable water quality standards. States must develop a TMDL for each pollutant that contributes to the impairment of a listed water body.

THIRTEEN TOTAL MAXIMUM DAILY LOADS FOR INDICATOR BACTERIA IN THE LOWER WEST FORK TRINITY RIVER WATERSHED

On September 24, 2013 the TCEQ adopted Thirteen TMDLs for the Lower West Fork of the Trinity River and its tributaries where concentrations of indicator bacteria exceed the criteria used to evaluate attainment of the contact recreation use. This TMDL takes a watershed approach to addressing the bacteria impairments. The entire watershed and all waste water treatments facilities that discharge within it are included within the scope of this TMDL.

The southern portion of Southlake is located within the Big Bear Creek (0841D) watershed, a sub-watershed of the Lower West Fork of the Trinity River. Big Bear Creek is an unimpaired waterbody, thus, there are no allocations for the permitted stormwater that discharges to Big Bear Creek. Documentation of this can be found in Appendix A: Communication with TCEQ. However, because the implementation plan for reducing pollutants is approached from a watershed scale the City has a vested interest in implementing the strategies identified by the North Central Texas Council of Governments (NCTCOG). Strategies from "Implementation Plan for Total Maximum Daily Loads for Bacteria in the Greater Trinity River Region", adopted by the TCEQ on December

11, 2013 and hereby known as “Implementation Plan”, have been selected by the City for appropriateness for the community and are identified in this SWMP.

CURRENTLY NOT APPROVED GREATER TRINITY RIVER POLYCHLORINATED BIPHENOL (PCB) TMDL

The TCEQ has begun the development of a Total Maximum Daily Load (TMDL) Implementation Plan (I-Plan) for polychlorinated biphenyls (PCBs) in a seven county area of North Texas. PCB levels in the Trinity River from Henderson and Navarro Counties, upstream through Dallas, along the West Fork Trinity to Lake Worth, and the Clear Fork Trinity below Benbrook Lake, are under a fish possession ban and fish consumption advisory from the Texas Department of State Health Services. The intent of the I-Plan is to address those PCB levels in the impaired portions of the Trinity and, over time, eliminate the need for the fish advisory.

As directed by Part II, Section D(4)(b) of this Permit, the City has determined that no permitted discharge is directly to one or more water quality impaired water bodies involved in the development of this TMDL.

GRAPEVINE LAKE IMPAIRMENT FOR PH

The TCEQ has identified Grapevine Lake (segment 0826) in the 2012 Texas Integrated Report - Texas 303(d) List. The lake has been identified as impaired in water quality due to high pH. The northern portion of the City of Southlake discharges to Grapevine Lake.

A preliminary review of sampling data provided by the TCEQ through the Surface Water Quality Viewer (<http://www80.tceq.texas.gov/SwqmisPublic/public/default.htm>) shows that sampling locations in the sections of the lake where the City of Southlake discharges have not exceeded the local pH limits (6.0-10.0) defined by the Texas Water Quality Standard during the study time frame.

However, as directed by Part II, Section D(4)(a) of this Permit, the City has determined the city has a direct discharge to Grapevine Lake and will include in this SWMP:

- Within one year, determine whether the MS4 is a source of the Pollutant of Concern (POC);

If, within one year, the City of Southlake determines the MS4 is a source of the POC,

- Within two years, include focused Best Management Practices (BMPs) and measurable goals to reduce the POC; and,
- Within three years, submit a Notice of Change (NOC) to update SWMP to include BMPs to address the POC.

ORGANIZATION OF THIS STORMWATER MANAGEMENT PLAN

This Stormwater Management Plan was developed in compliance with the General Permit TXR040000. The SWMP was organized to reflect each major section of the Permit. For example, Part II of the SWMP corresponds with Part II of the General Permit.

BACKGROUND INFORMATION FOR THE CITY OF SOUTHLAKE

The City of Southlake is a community of located northeast of Fort Worth and just south of Grapevine Lake. The majority of the City is located in Tarrant County and a small portion is located in Denton County. Incorporated in 1956, the City did not see major growth until the 1990's. The City covers an area of 22 square miles and has a projected built-out population estimated at around 30,000.

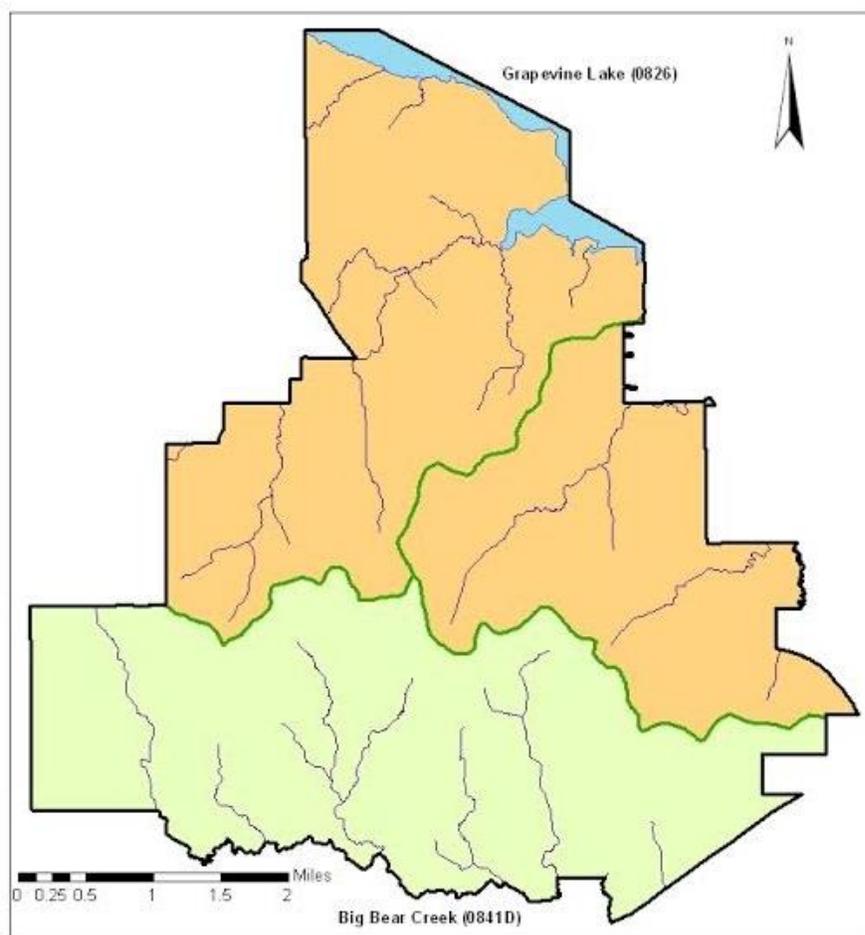
The City's stormwater drainage is generally divided in an east-west direction near the center of the city. The northern section of the City drains to Grapevine Lake and the southern portion drains to Bear Creek, a tributary of the West Fork of the Trinity River.

The map below is of the City jurisdictional boundary and major drainage features.

MUNICIPAL SETTING AND RESPONSIBILITY OF IMPLEMENTATION

The City is a Council-Manager form of government. The Mayor is elected at large and is recognized as head of the city government. As designated by the city charter, the City Manager is appointed by the Mayor and City Council and serves as the chief administrative officer for the city organization.

The Public Works Department will be responsible for ensuring that all departments work closely to develop and implement all BMPs in this SWMP to the maximum extent practicable. Public Works will work with the Planning Department on the development of BMPs in the Construction and Post-Construction MCMs. The Environmental Coordinator in the Public Works Department will be responsible for tracking all activities and reporting those activities, per the Permit requirements.



PART II: PERMIT APPLICABILITY AND COVERAGE

SECTION A: MS4 COVERAGE AND ELIGIBILITY

The portion of the City located within Tarrant County is identified as part of the Dallas/Fort Worth Urbanized Area, as defined by the 2000 Decennial Census by the U.S. Census Bureau. The City will implement all measures of the SWMP throughout the jurisdictional boundary of Southlake. Should the City's jurisdiction expand to new areas, the SWMP will apply to those new areas within the required time frame, per the Permit.

SECTION A.5: REGULATORY CATEGORY

This Permit defines MS4 operators by categories, or levels, based on the population served within the 2010 urbanized area. The City of Southlake is categorized as a Level 2 operator, which is defined as a traditional small MS4 that serves a population of 10,000 to 40,000 within an urbanized area.

SECTION C: ALLOWABLE NON-STORMWATER DISCHARGES

The following non-stormwater discharges may be discharged from the City and are not required to be addressed in the Illicit Discharge Detection and Elimination or other minimum control measure unless they are determined by the City or the TCEQ to be significant contributors of pollutants:

- a) water line flushing (excluding discharges of hyper-chlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
- b) runoff or return from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater or surface water resources;
- c) discharges from potable water sources;
- 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 conditioner 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;
- o) discharges or flows from firefighting activities (firefighting activities do not include washing of trucks, runoff water from training activities, test water from fire suppression systems, and similar activities);
- p) other allowable non-stormwater discharges listed in 40 CFR § 122.26(d)(2)(iv)(B)(1);
- q) non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) and the TDES Construction General Permit (CGP); and,
- r) other similar occasional incidental non-stormwater discharges unless the TCEQ develops permits or regulations addressing these discharges.

SECTION E.10: PERMIT TERM

This general Permit is effective for five years from the date of issuance, December 11, 2013. Authorizations for discharge under the provisions of this General Permit may continue until the expiration date of the General Permit. This General Permit may be renewed by the TCEQ for an additional term or terms not to exceed five years.

PART III: STORMWATER MANAGEMENT PLAN

SECTIONS A AND C: DEVELOPMENT PROCESS AND GENERAL REQUIREMENTS

City staff developed this Storm Water Management Plan (SWMP) in committee. Each element of this plan was considered after reviewing the previous SWMP and this Permit. BMPs were selected from the previous SWMP based upon whether current activities comply with requirements within this Permit. New elements were added based on new requirements in this Permit.

SECTION A.2: CONTENT OF THE SWMP

The City has addressed the following required contents of the SWMP.

- (a) A description of Minimum Control Measures (MCM) with measureable goals, including, as appropriate, the months and years in which the City will undertake required actions, including interim milestones and the frequency of the action for each MCM described in Part III, Section B. These MCMs and measureable goals follow in the next section of this document.
- (b) The City had developed and adopted ordinances, allowed by state, federal and local law, providing the legal authority necessary to implement and enforce the requirements of this Permit, including information on any limitations to the legal authority. A description of the appropriate regulatory authority through ordinance adoption can be found in the section about the MCM that calls for the regulatory authority.
- (c) A summary of written procedures describing how the City will implement the provisions in Parts III and IV of the MS4 General Permit. Written procedures on how the City will implement the provisions can be found in the description of each BMP.
- (d) A description of a program or a plan of compliance with the requirements in Part II.D.4 (relating to Impaired Water Bodies and Total Maximum Daily Load [TMDL] Requirements).

SECTION A.3: LEGAL AUTHORITY

The City of Southlake has adopted two ordinances, per the previously adopted Small MS4 General Permit: ordinance number 946 added Article VIII “Erosion and Sediment Control” and ordinance number 953 added Article IX “Prohibition of Illicit Connections and Discharges to the Municipal Separate Storm Sewer System” to Chapter 9.5 “Environment” of the City Code of Ordinances. These ordinances address the following:

- a. Authority to prohibit illicit discharges and illicit connections;
- b. Authority to respond to and contain other releases – Control the discharge of spills, and prohibit dumping or disposal of materials other than stormwater into the City of Southlake MS4;
- c. Authority to require compliance with conditions in the City’s ordinances, permits, contracts, or orders;
- d. Authority to require installation, implementation, and maintenance of control measures;
- e. Authority to receive and collect information, such as stormwater plans, inspection reports, and other information deemed necessary to assess compliance with this Permit, from operators of construction sites, new or redeveloped land, and industrial and commercial facilities;

- f. Authority, as needed, to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the City of Southlake;
- g. Authority to respond to non-compliance with BMPs required by the City of Southlake consistent with the City's ordinances;
- h. Authority to assess penalties, including monetary, civil, or criminal penalties; and
- i. Ability to enter into interagency or interlocal agreements or other maintenance agreements, as necessary.

SECTION A.4: RESOURCES

The City of Southlake recognizes that it is the permittee's responsibility to ensure that it has adequate resources and funding to implement the requirements of this Permit.

SECTION A.5: EFFLUENT LIMITATIONS

The controls and BMPs included in this SWMP constitute effluent limitations for the purposes of compliance with state rules. This includes the requirements of 30 TAC Chapter 319, Subchapter B, which lists the maximum allowable concentration of hazardous metals for discharge to water in the state.

SECTION A.6: ENFORCEMENT MEASURES

As a traditional small MS4, the City of Southlake has developed a standard operating procedure (SOP) to respond to violations to the extent allowable under state and local law. This SOP remains on file in the Public Works Department and is available for review.

PART III, SECTION B: MINIMUM CONTROL MEASURES

SECTION B.1: PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT

The city has evaluated the previous SWMP plan activities and believes 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 has been developed. The city will continue to implement this comprehensive program, as described below.

The city has identified bacteria as a high priority community-wide issue and has set a goal of increasing the public's knowledge of potential contributions of bacteria in runoff from residential sites. During the Permit term the city will consider potential contributions of bacteria in stormwater discharges and focus educational programs and public involvement programs on these residential activities.

For each activity identified to implement the BMPs below during the Permit term the city will identify the target audience(s) of the material distributed or activity implemented. The city will also determine cost effective and practical methods and procedures for the material distributed or activity implemented.

CURRENT PROGRAMS

The City of Southlake has evaluated the previous plan activities for public education and public involvement and will continue to implement the following activities.

- (a) **Continue to maintain a stormwater page on the City of Southlake website, www.cityofsouthlake.com**
 - (1) Per Section B(1)(a)(2) and Section B(1)(b)(3) of this Permit, the city must make educational materials available to convey the program's message to the target audiences at least once annually and ensures the public can easily find information about the SWMP. The city hosts information about stormwater on its website: www.ci.southlake.tx.us. The website is a useful tool for quickly providing information to all groups at all times. Website information can make education material available at any time to the public and easily updated, thus is a good resource for any education program. The most recent version of the SWMP and the annual report is made available on the website. The city will continue to update the website to provide information to all groups and measure the number of site visitors.
 - (2) The goal is to continue to host information about stormwater applicable to all site visitors. The city will review the information about stormwater on the website annually and update the website as appropriate.
 - (3) The city will measure this goal by reviewing the information on the website annually.
 - (4) This program is a continuation from the previous Permit term and on-going. The annual website review will occur once per year by September.
- (b) **Continue distribution of educational and promotional material**
 - (1) Also per Section B(1)(a)(2) of this Permit, the city utilizes a number of publications (e.g. Consumer Confidence Report, Community Services Summer Catalog) to distribute educational material regarding stormwater to the public. The city also distributes public education material, such as pamphlets and brochures, at public events and at public facilities such as the library. These are cost-effective and efficient ways to distribute information about storm water quality to the public, especially residents.

When appropriate, the City will utilize educational material developed through the city's participation with NCTCOG, especially utilizing materials focused on bacteria.

- (2) The goal is to continue to distribute information about stormwater to the public through at least one publication annually, at least one event distribution annually and conduct an annual review of the public facility display(s).
- (3) The city will measure this goal by an annual review to count the number of publications distributed with stormwater information, count the number of events where stormwater information was provided, and a review of public facility displays.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year in September.

(c) Continue participation in NCTCOG stormwater education subcommittee

- (1) Per Section B(1)(a)(4) of this Permit, MS4 operators may partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach. The city participates in regional stormwater education efforts through North Texas Council on Governments. The education committee is a cost-effective measure for producing educational information and coordinating events with other government entities to promote a regional understanding of stormwater issues. Through NCTCOG, the city can assist in focusing a regional effort on bacteria as a high-priority community-wide issue, per *Implementation Strategy 7.0: Ongoing stormwater public education participation and inclusion of bacteria-specific materials* and *Implementation Strategy 7.1: Education and outreach forum* of the Implementation Plan.
- (2) The goal is to continue to participate in NCTCOG lead projects, attend meetings, and utilize NCTCOG materials, as appropriate.
- (3) The city will measure this goal by documenting participatory activities with NCTCOG.
- (4) This program is a continuation from the previous Permit term and on-going.

(d) Continue ongoing support of Keep Southlake Beautiful

- (1) Per Section B(1)(b)(2) of this Permit, the city creates opportunities for citizens to participate in the implementation of control measures. Keep Southlake Beautiful (KSB) is a partnership with Keep Texas Beautiful. Municipal staff organizes this volunteer program dedicated to enhancing the quality of life for Southlake residents through green initiatives and beautification projects. Past KSB projects and programs have included an Adopt-A-Street program and a Great American Cleanup program to remove trash and debris that may become floatables; tree and leaf recycling program to prevent illegal dumping of Christmas trees and leaves; and a street tree program to encourage many benefits, including pollution prevention and reduce runoff, and reduce soil erosion. Through KSB, staff can raise awareness about environmental issues, such as water quality, and get the public involved. Per *Implementation Strategy 7.4: Partnerships* of the Implementation Plan, the city will continue to support this partnership.
- (2) The goal is to continue to organize volunteer programs through KSB or a similar organization. Programs that may benefit stormwater quality will continue to be encouraged at least annually.

- (3) The city will measure this goal by reviewing the number of hours of participation in KSB programs or a similar organization.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year in September.

SECTION B.2: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

The city has evaluated the previous SWMP plan activities and believes an effective IDDE program has been developed. The city has fully developed, implemented, and enforced a program to detect, investigate, and eliminate illicit discharges into the city's MS4. The current program includes a plan to detect and address non-stormwater discharges, including illegal dumping to the MS4 system.

The city adopted regulation by ordinance prohibiting non-stormwater discharges on April 21, 2009. The ordinance identifies specific prohibited non-stormwater discharges, identifies prohibited activities that may lead to degradation of water quality, and provides for authority to inspect for and prohibit by penalty illicit discharges to the MS4. In addition, a map of the MS4 storm drainage system has been developed and staff who may observe illicit discharges during normal operations have been informed on how to identify illicit discharges and how to report the illicit discharge.

For those items that the city has not fully developed per the issuance of the renewed Permit, a BMP has been identified for each element to develop and implement the program during this Permit term.

CURRENT PROGRAMS

The City has evaluated the previous plan activities for illicit discharge and detection and will continue to implement the following activities.

(a) **Maintain an up-to-date MS4 map**

- (1) Per Section B(2)(a)(1)(a) of this Permit, the city has developed an up-to-date MS4 map in order to identify and monitor locations where the city discharges to waters of the U.S. The GIS data set includes the location of all outfalls that are operated by the city and that discharge into waters of the U.S. In addition, the data set includes all surface waters receiving discharges from the outfalls operated by the city. The city will keep this GIS data set up-to-date by reviewing development plans on a regular basis and adding information to the data set as appropriate.
- (2) The goal is to continue to maintain an up-to-date MS4 map by maintaining a GIS data set with new or revised outfalls.
- (3) The city will measure this goal by reviewing procedures for updating the GIS data set annually.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year in September.

(b) **Continue to inform and train MS4 field staff on IDDE**

- (1) Per Section B(2)(c)(1) of this Permit, many potential threats to water quality such as illicit discharges and illicit connections caused by the public can be identified and eliminated when staff is aware of the problem and aware of how to proceed. The City field staff receives training on how to identify potential water quality threats. During this Permit term, training will include information from the SOP on illicit discharge response to be developed per BMP B.2 (d). In addition, the city has identified code enforcement staff and the environmental coordinator as the points of contact to receive reports.
- (2) The goal is to ensure field staff is trained to identify potential water quality threats and how to proceed to eliminate the threat. The city will conduct training once per year with field staff to ensure this group is informed.
- (3) The city will measure this goal by documenting an annual training.

- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year before the end of September.

(c) **Continue to Implement a Liquid Waste Hauler and Grease Interceptor Maintenance Program**

- (1) Greasy waste from the food service industry can pose a threat to water quality when the grease interceptor fails due to clogging. Clogged wastewater lines and other damage to the system lead to overflows, which can enter the environment. This poses a special risk of introducing bacteria, a pollutant of concern. In addition, there is historical documentation of liquid waste haulers illicitly dumping loads from grease interceptors and other facilities directly into the MS4.

The city has adopted an ordinance requiring liquid waste haulers to register with the city and report all hauling activities through manifests. The city uses this method to monitor grease interceptor maintenance. The city also periodically inspects grease interceptors for the potential for failures and imposes maintenance requirements as needed to avoid failures and overflows.

The city has also identified education as an important goal in ensuring the community, especially restaurants, install and maintain grease interceptors properly.

- (2) The goal is to continue to implement this program, including to ensuring grease interceptor installation and maintenance, and providing educational materials to the community.
- (3) The city will measure this goal by documenting the review of manifests submitted to the city and to document the inspection of grease interceptors as needed. An annual review will be conducted on how many manifests were reviewed and how many grease interceptors were inspected. The city will also distribute public education materials, as appropriate and document the distribution of educational materials, as appropriate.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year in September.

ADDITIONAL PROGRAMS

The City has reviewed the new General Permit and will add the following activities in compliance with the Permit terms.

(d) **Develop an SOP for responding to illicit discharges and spills, including source investigation and source removal**

- (1) Per Section B(2)(c)(4) and (5) of this Permit, all permittees shall develop and maintain on site procedures for responding to illicit discharges and spills. The city shall also develop source investigation and elimination procedures. The standard operating procedure will direct staff to receive reports of illicit discharges and spills, investigate reports, and take action to remediate spills and remove the source of the illicit discharge. Requirements from the General Permit on source investigation and directing corrective action will be included in the SOP.
- (2) The goal is to develop and adopt an SOP for all field staff to follow.
- (3) The city will measure this goal by documenting the development and adoption of an SOP.
- (4) The city will develop and adopt an SOP by September, 2015.

(e) **Partner with Tarrant County, Environmental Health Division to develop procedures to respond to leaking on-site sewage facilities (OSSF)**

- (1) Leaking OSSFs can threaten to introduce bacteria to water bodies. The city has contracted with Tarrant County Environmental Health Division (TCEH) to inspect and enforce the maintenance of on-site sewage facilities within the city's limits. To ensure response and correction of any leaking facilities is made in a timely manner, the city will partner with TCEH to develop procedures to respond to reports of failing facilities. These procedures will include involving municipal staff, as needed, to ensure corrective action is taken to prevent illicit discharge. The city will work with Tarrant County to assist in *Implementation Strategy 5.1: Aerobic treatment unit maintenance*.
- (2) The goal is to develop procedures in partnership with TCEH to involve municipal staff, when necessary, to ensure protection of surface waters.
- (3) The city will measure this goal by documenting the development and adoption of procedures.
- (4) The city will develop and adopt procedures in partnership with TCEH by September, 2015.

SECTION B.3: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The city has evaluated the previous SWMP plan activities and believes an effective construction site stormwater runoff control program has been developed. The city has fully developed, implemented, and enforced a program requiring operators of small and large construction activities to select, install, implement, and maintain stormwater control measures that prevent illicit discharges to the MEP.

The city adopted regulation by ordinance to provide for the regulation of erosion and sediment control on construction sites on September 16, 2008. The ordinance identifies specific prohibited non-stormwater discharges from construction sites, identifies prohibited activities that may lead to degradation of water quality, provides for a construction plan review and inspection program, and provides for authority to inspect for and prohibit by penalty illicit discharges to the MS4, per Per Sections B(3)(b)(2) and (3) of this Permit.

The Implementation Plan for the Greater Trinity River bacteria TMDL has identified construction sites as a source of bacteria. Bacteria may also to sediment, which is highly erosive during construction. In addition, other sources such as nutrients, landscape material and improperly disposed of on-site sewage may enter waterways. Thus, the city has identified *Implementation Strategy 3.2: Construction sites* as another important tool in controlling for bacteria as a high-priority pollutant for this community.

CURRENT PROGRAMS

The City has evaluated the previous plan activities for construction site stormwater runoff control and will continue to implement the following activities.

(a) **Continue Plan Review Procedures**

- (1) Per Section B(3)(b)(4) of this Permit , the city has developed and implemented plan review procedures for all small and large construction sites, including sites located within a common plan of development. Municipal staff requires the receipt of, and then reviews SWPPPs developed in compliance of the TPDES Construction General Permit TXR150000. Review includes ensuring the construction site has planned for erosion and sediment controls, soil stabilization, and BMPs to minimize the discharge of pollutants to the MS4.
- (2) The goal is to receive and review SWPPPs for all active small and large constructions sites, including sites located within a common plan of development.
- (3) The city will measure this goal by documenting the site name, location, and review of the project. An annual review will be conducted to determine the number of construction site SWPPPs that were reviewed.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year before the end of September.

(b) **Continue Inspection and Enforcement Program**

- (1) Per Sections B(3)(b)(5) and (6) of this Permit, the city has developed construction inspection procedures and then implemented those procedures following the adoption of the ordinance governing erosion and sediment controls. The city will continue to inspect active construction sites for compliance with the ordinance and the site specific SWPPP. The city will also continue to document receipt of information from the public and inspect construction sites for compliance based on the information received.

All inspections are conducted to determine if control measures have been selected, installed, implemented and maintained according to the City's requirements. All construction inspections are documented electronically and made available to construction site personnel. In conjunction, construction personnel are required by ordinance to inspect and record electronically their inspections in a database that is observable by municipal personnel.

Procedure has been developed and implemented to take all necessary enforcement actions to ensure compliance with the city's ordinance and the site SWPPP. Enforcement actions are tracked by staff.

- (2) The goal is to inspect construction sites at the frequency defined above, document inspection findings in an electronic format, and to take enforcement action necessary to ensure compliance with the city's ordinance and the site's SWPPP.
- (3) The city will measure this goal by counting the number of inspections conducted and the number of enforcement actions taken through an annual review.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year before the end of September.

(c) Municipal Staff Training for Regulating Construction Sites

- (1) Per Section B(3)(b)(7) of this Permit, to ensure the program is conducted in an effective manner all municipal staff whose primary job duties are related to implementing the construction site review and inspection program have attended training or have been informed on conducting these activities. The city will ensure that new staff whose primary job duties are related to the program are trained or informed on conducting activities within six months of employment.
- (2) The goal is to ensure all staff whose primary duties are related to implementing construction site review and inspections are trained within six months of employment.
- (3) The city will measure this goal by documenting any new staff have received training within six months of employment. If there have been no new staff within the annual Permit cycle, the city will not measure this goal.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year before the end of September.

SECTION B.4: POST-CONSTRUCTION MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

The city has evaluated the previous SWMP plan activities and believes the city has regulated post-construction storm water management in new development and redevelopment based on requirements from the previous Permit term. The city has developed, implemented, and enforced 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 City 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 city utilizes elements from the Integrated Stormwater Manual (iSWM) Manual produced by NCTCOG for the review of new development and redevelopment projects for stormwater runoff, where appropriate. During this Permit term the city will continue to review and implement elements of iSWM as appropriate for Southlake.

A BMP has been identified for each element to develop and implement the program during this Permit term.

CURRENT PROGRAMS

The City has evaluated the previous plan activities for illicit discharge and detection and will continue to implement the following activities.

(a) **Review of New Development and Redevelopment Projects for Post-Construction Runoff Using Local Development Standards**

- (1) Per Section B(4)(a)(2) of this Permit, the city must use, to the extent allowable under state, federal, and local development standards, an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects. The city reviews for post-construction controls development and redevelopment based on zoning requirements. Additional considerations will be made during this Permit term to review for the control bacteria per TMDL *Implementation Strategy 3.0: Adoption of green infrastructure and low impact development standards by municipalities* when appropriate for the project.
- (2) The goal is to continue to review plans for new development and redevelopment projects to ensure the project is addressing post-construction water quality.
- (3) The city will measure this goal by documenting the project was reviewed for post-construction control measures, when appropriate.
- (4) This program is a continuation from the previous Permit term and on-going.

ADDITIONAL PROGRAMS

The City has reviewed this General Permit and will add the following activities in compliance with the Permit terms.

(b) **Review Local Standards and Zoning Ordinances and Adopt, as Necessary, New Standards and Requirements for Post-Construction Controls**

- (1) Per Section B(4)(a)(2) of this Permit, the city must use an ordinance to address post-construction runoff from new development and redevelopment projects. The city will review current City of Southlake development standards and zoning ordinances and adopt, as necessary, new standards and requirements to ensure post-construction controls are required to be designed, installed, implemented and maintained.

- (2) The goal is to (a) review City of Southlake development standards and zoning ordinances, and (b) update City of Southlake development standards and zoning ordinances, as necessary, to ensure post-construction controls are designed, installed, implemented, and maintained.
- (3) The city will measure this goal by documenting the review of City of Southlake development standards and ordinances. The city will document the adopting of new standards and codes, if necessary.
- (4) The city will review development standards and zoning ordinances by September, 2016. If deemed necessary, the City will update and adopt new development standards and code by September, 2017.

(c) **Long-Term Maintenance of Post-Construction Stormwater Control Measures**

- (1) Per Section B(4)(b)(3) of this Permit, the city must ensure the long-term operation and maintenance of structural control measures installed to address post-construction runoff from new development and re-development projects. Long term maintenance shall be ensured through one of the following approaches:
 - (a) Long-term maintenance of controls installed by the city shall be performed and documented as described in BMP B.5(e).
 - (b) Long term maintenance of controls installed by the owner or operator of a new development or redevelopment shall be ensured by requiring the maintenance plan addresses maintenance requirements for any structural control measures installed on site. The city will ensure the maintenance plan includes the operation and maintenance performed is documented and maintained on site and made available for review by the city.
- (2) The goal is to ensure long-term maintenance of controls installed through either approach.
- (3) The city will measure the goal of maintenance of structural controls installed by the city by ensuring documentation continues to be made. The city will measure the goal of maintenance of structural controls installed by the owner or operator of a new development or redevelopment by documenting the installation of control measures, documenting the creation of a maintenance plan for each control measure installed, and make the owner or operator of a control measure aware documentation of the control measure maintenance is required.
- (4) The documentation of control measure maintenance installed by the city is on-going. The documentation of control measure maintenance installed by the owner or operator of a new development or redevelopment shall be implemented by September, 2017.

SECTION B.5: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

The city has evaluated the previous SWMP plan activities and believes an effective pollution prevention and good housekeeping program has been developed. The city has developed and maintains an inventory of facilities and storm water controls that it owns and operates within the city boundaries. Staff has reviewed and adjusted operations at municipally-owned facilities to reduce the potential for pollution. The inventory for the City of Southlake includes:

- equipment storage and maintenance facilities;
- fuel storage facilities;
- materials storage yards;
- pesticide storage facilities;
- buildings, including libraries, police stations, fire stations, and office buildings;
- parking lots;
- public works yards, including vehicle storage and maintenance yards;
- recycling facilities;
- street repair and maintenance sites;
- and, structural stormwater controls.

In addition, employees who are involved in implementing pollution prevention and good housekeeping practices have received training. Training has focused on practices that may cause pollution and how to prevent storm water pollution. In addition, the city ensures that waste materials removed from the MS4 are documented and disposed of in accordance with 30 TAC Chapters 330 to 335, as applicable.

For those items that the city has not fully developed per the issuance of this Permit, a BMP has been identified for each element to develop and implement the program during this Permit term.

CURRENT PROGRAMS

The city has evaluated the previous plan activities for illicit discharge and detection and will continue to implement the following activities.

(a) **Continue Employee Training and Education on Pollution Prevention and Good Housekeeping Practices**

- (1) Per Section B(5)(b)(2) of this Permit, municipal employees who are directly involved in potentially polluting activities will receive both general stormwater and targeted BMP training tailored to their activities. This will increase the likelihood that receiving waters and the storm drain system will be protected from inadvertent discharges and spills. Training will include potential sources of stormwater contamination and ways to minimize the water quality impact of municipal activities, such as park and open space maintenance, fleet and building maintenance, construction and land disturbances, and storm drain system maintenance.
- (2) The goal is to provide one training event per Permit Year to employees who are directly involved in potentially polluting activities.
- (3) The city will measure this goal by summarizing the training conducted and documenting the employees who attended the training. A training attendance list will be made available for inspection by TCEQ when requested.
- (4) This program is a continuation from the previous Permit term and on-going. The annual review will occur once per year before the end of September.

ADDITIONAL PROGRAMS

The city has reviewed this Permit and will add the following activities in compliance with the Permit terms.

(b) Contractor Requirements and Oversight

- (1) Per Section B(5)(b)(4) of this Permit, the city must contractually require any contractors hired by the city to perform maintenance activities on municipally-owned facilities to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures. The city will develop oversight procedures and implement oversight procedures.
- (2) The goals for this BMP are to (1) identify contractors who perform maintenance activities on municipally-owned facilities and may have a potential to contribute to stormwater pollution, and (2) to develop and implement oversight procedures.
- (3) The city will measure this goal by (1) developing a list of contractors who have been identified as described above, and (2) producing written oversight procedures.
- (4) The city will (1) develop a list of contractors by September, 2016, and (2) produce written oversight procedures for contractors by September, 2017.

(c) Assess Municipal Operations and Maintenance Activities and Identify Pollutants of Concern

- (1) Per Section B(5)(b)(5)(a-b) of this Permit, the city must assess municipally-owned facilities and evaluate operation and maintenance (O&M) activities for their potential to discharge pollutants in storm water. Activities listed in the referenced section of the Permit will be assessed. In addition, the city will identify pollutants of concern, including those pollutants listed in this section.
- (2) The goals for this BMP are to (1) assess all municipally-owned facilities and evaluate all O&M activities and (2) identify pollutants of concern.
- (3) The city will measure this goal by developing a written assessment of O&M and identified pollutants of concern for each municipally-owned facility.
- (4) The city will develop a written assessment of each municipally-owned facility by September, 2016.

(d) Develop Pollution Prevention Measures for Municipal Operations and Maintenance Activities

- (1) Per Section B(5)(b)(5)(c-d) of this Permit, the city must (1) develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in storm water from activities identified in the assessment of the facilities, and (2) inspect identified and implemented pollution prevention measures to ensure they are working properly.
- (2) The goals for this BMP are to (1) create an inventory of pollution prevention measures developed and implemented, and (2) inspect the inventory of pollution prevention measures once annually.
- (3) The city will measure this goal by (1) developing an inventory of pollution prevention measures, and (2) document the inspection of the inventory of pollution prevention measures once annually.
- (4) The city will (1) develop an inventory of pollution prevention measures by September, 2017, and (2) document the inspection of the inventory annually starting September, 2017.

(e) **Maintenance of Structural Controls for Municipally-Owned Facilities**

- (1) Per Section B(5)(b)(6) of this Permit, the city must maintain any structural controls installed to prevent or reduce pollutant runoff at municipally-owned facilities per Section B(4)(b)(3) of this Permit and BMP B.4.b. Maintenance must be performed at a frequency identified by the city that will maintain the effectiveness of the BMP.
- (2) The goal for this BMP is to identify a maintenance schedule for structural controls installed at municipally-owned facilities and to perform maintenance on the structural controls at the schedule identified.
- (3) The city will measure this goal by (1) developing a maintenance schedule of structural controls installed per Section B(4)(b)(3) of this Permit and BMP B.4.b, and (2) maintain documentation of maintenance of the structural controls.
- (4) The city will (1) develop a maintenance schedule by September, 2017, and (2) begin to document the maintenance of structures on the frequency identified in the schedule by September, 2017.

PART IV: RECORDKEEPING AND REPORTING

SECTION A: RECORDKEEPING

In accordance with General Permit TXR040000, Part IV, Section A, the city will retain all records, a copy of the TPDES General Permit, and records of all data used to complete the application for the General Permit. This information will be retained at:

City of Southlake
1400 Main St., Suite 320
Southlake, TX 76092

The city will make this information available to the public if a request is made in writing to the City Secretary.

SECTION B.1: GENERAL REPORTING REQUIREMENTS

The City will track all BMP activities, results, and changes to the SWMP through an annual report that will be submitted to the TCEQ for each year of the Permit term. The annual report will include all information required by the General Permit, including the status of the compliance with Permit conditions, assessments of BMPs, and any changes to the SWMP, as determined for the City to remain in compliance with the General Permit conditions.

SECTION B.2: ANNUAL REPORT

For reporting purposes, each Permit year shall begin on October 1. Annual reports will be submitted to the TCEQ by the date indicated below for each Permit year.

Permit Year	Reporting Period	Report Due
August 13, 2013 through Year 1	August 13, 2013 – September 30, 2014	December 29, 2014
Year 2	October 1, 2014 – September 30, 2015	December 29, 2015
Year 3	October 1, 2015 – September 30, 2016	December 29, 2016
Year 4	October 1, 2016 – September 30, 2017	December 29, 2017
Year 5	October 1, 2017 – September 30, 2018	December 29, 2018

Appendix A: Communication with TCEQ