Stormwater Management Program

Prepared in accordance with
TPDES General Permit TXR040000

CITY OF COLLEGE STATION

2013

Contents

Definitions

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.

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.

a) **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.

b) **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 Community – Local contractors, developers, engineers, and architects.

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 stormwater 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 Stormwater 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 stormwater runoff.

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

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.

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

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency fire fighting activities.

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.

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

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, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under the CWA §208 that discharges to surface water in the state;

b) That is designed or used for collecting or conveying stormwater;

c) That is not a combined sewer; and

d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2.

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.

Permittee - The MS4 operator authorized under this General Permit No TXR040000.

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

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

Redevelopment - Alterations of a property that changed the ”footprint” of a site or building in such a way that there is a disturbance of equal to or greater than one (1) acre of land. This term does not include such activities as exterior remodeling, 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, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under CWA § 208;

b) Designed or used for collecting or conveying stormwater;

c) Which is not a combined sewer;

d) Which is not part of a publicly owned treatment works (POTW) as defined in 40 CFR § 122.2; and

e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

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

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

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

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

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

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.

Introduction

Regulatory Requirement

The 1972 amendments to the Federal Water Pollution Control Act, later referred to as the Clean water Act (CWA), prohibit the discharge of any pollutant to navigable waters of the U.S. from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act establishes environmental programs, including the NPDES program, to protect the Nation's waters and directs the U.S. Environmental Protection Agency (EPA) to issue rules on how to implement this law. Under the NPDES program, a municipal stormwater plan was developed in two phases.

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

The Stormwater Phase II rule, promulgated December 8, 1999 to the Texas Commission on Environmental Quality (TCEQ), was the next step in the EPA's efforts to preserve, protect, and improve the nation's water resources from polluted stormwater runoff. TCEQ reissued the Texas Pollution Discharge Elimination System General Permit TXR040000 on December 13, 2013. The reissued permit categorizes MS4 operators by levels based on the population served within the 2010 Urbanized Area (UA). The City of College station is defined as a level 3 MS4. Level 3 operators serve a population between 40,000 and 100,000. The intent of the MS4 permit is to implement programs and practices to control polluted stormwater runoff. This program requires that the City of College Station:

- Reduce the discharge of pollutants to the maximum extent practicable (MEP);
- Protect water quality;
- Satisfy the appropriate water quality requirements of the Clean Water Act; and
- Manage stormwater quality activities through the Stormwater Management Program (SWMP).

Stormwater Management Program

The City of College Station has updated the SWMP in accordance with the requirements of the reissued TPDES General Permit TXR040000 for obtaining authorization for stormwater discharges and certain non-stormwater discharges. The SWMP has been developed to facilitate the City's efforts in reducing stormwater pollutants from the City's MS4 to the maximum extent practicable.

The City of College Station is required to develop a SWMP that describes specific actions that will be taken over a five-year period to reduce pollutants and protect the City's stormwater quality to the maximum extent practicable. The specific activities to be implemented are best management practices (BMPs). The SWMP must also set measurable goals and provide a schedule for the implementation of the BMPs. BMPs must be developed for each of the six minimum control measures (MCMs) that are required by the Phase II Rules.

The six MCMs are:

1. Public Education, Outreach, and Involvement;
2. Illicit Discharge Detection and Elimination;

3. Construction Site Stormwater Runoff Control;
4. Post-Construction Stormwater Management in New Development and Redevelopment;
5. Pollution Prevention and Good Housekeeping for Municipal Operations; and
6. Authorization for Construction Activities where the Small MS$ is the Site Operator (Optional).

Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements

The Environmental Protection Agency recently listed three (3) stream segments within the Brazos Basin as impaired. These segments have been published on the Clean Water Act (CWA) Section 303(d)(1) list as having Escherichia Coli (E. coli). Entities within the watershed have worked to develop a Total Maximum Daily Load or TMDL for the pollutant. TMDL is the total amount of a substance that a water body can assimilate (take in) and still meet the Texas Surface Water Quality Standards. The Implementation Plan (I-Plan) identifies measurable goals and a schedule that seeks to meet the requirements of both Part III Section B of the TPDES Permit and the TMDL.

The City of College Station is subject to the requirements of the approved TMDL, and must include in its SWMP controls targeting the pollutant of concern along with any additional or modified controls required in Part II Section D of the MS4 permit (TVR040000). The SWMP and required annual reports must include information on implementing any focused controls required , described below:

Targeted Controls - The City of College Station's SWMP includes a detailed description of all targeted controls that identify areas of focused efforts or additional BMPs that will be implemented to reduce the pollutant of concern.

Measurable Goal – For each targeted control, the SWMP includes measurable goals and an implementation schedule describing BMPs to be implemented each year of the permit term.

Identification of Benchmark Goal – The SWMP identifies the Waste Load Allocation (WLA) as the benchmark goal per the TMDL.

Impairment for Bacteria – Since the pollutant of concern has been identified as bacteria, the city of College station elects to implement the BMPs outlined in the I-Plan.

Monitoring or Assessment of Progress – The permittee shall monitor or assess progress in achieving benchmark goals and determine the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used.

1) The permittee may use either of the following methods to evaluate progress toward the benchmark goal and improvements in water quality:

    a) Evaluating Program Implementation Measures – The permittee may evaluate and report progress towards the benchmark goal by describing activities and BMPs implemented, by identifying the appropriateness of the BMPs, and by evaluating the success of implementing the measurable goals. The permittee may assess progress by using program implementation indicators such as:
        i) Number of sources identified or eliminated;
        ii) Decrease in number of illegal dumping;
        iii) Increase in illegal dumping reports;
        iv) Number of educational opportunities conducted;
        v) Reductions in SSOs; or
        vi) Increase in illegal discharge detection through dry screening, etc.;

b) Assessing Improvements in Water Quality – The permittee may assess improvements in water quality by using available data segment and assessment units of water bodies from other reliable sources, or by purposing and justifying a different approach such as collecting additional in stream outfall monitoring data, etc. Data may be required from TCEQ, local river authorities, partnerships, and other local efforts as appropriate.

Progress towards achieving the benchmark goal shall be reported in the annual report. Annual reports shall report the benchmark goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment.

Observing No Progress Towards the Benchmark Goal – If, by the end of the third year from the effective date of the permit, the permittee observes no progress toward the benchmark goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards benchmark goals.

Annual Reporting Requirements

The City of College Station will track all BMP activities, results, and changes to the SWMP through an annual report that will be submitted to the TCEQ within 90 days of the end of each permit year, as tabulated below. The annual report will include all factors required by the general permit, including the status of the compliance with permit conditions assessments of BMPs and any changes to the SWMP, as assessed to keep the City of College Station in compliance with the general permit conditions.

Permit Year	Reporting Period	Report Submittal
Year 1	January 1, 2014-December 31, 2014	March 31, 2015
Year 2	January 1, 2015-December 31, 2015	March 31, 2016
Year 3	January 1, 2016-December 31, 2016	March 31, 2017
Year 4	January 1, 2017-December 31, 2017	March 31, 2018
Year 5	January 1, 2018-December 31, 2018	March 31, 2019

Measures for Carters and Burton Creek TMDL I-Plan

BMP 1. Coordinate and expand existing water quality monitoring in the watershed and conduct a watershed bacteria source survey.			
Measurable Goals	**Schedule**		**Monitoring/ Assessment of Progress**
Identify personnel to train and lead volunteers. Provide support in water quality monitoring via equipment cost, material cost, or personnel time. Develop and distribute volunteer material. Assist in data entry through DataViewer.	Year 1	Initiate water quality monitoring support. Submit PAR[1] to Texas Stream Team Coordinator.	1. Number of educational opportunities conducted. 2. PAR support contributions (Quarterly submissions to Texas Stream Team) 3. Report total PAR support in annual report.
	Year 2	Continue water quality monitoring support. Submit PAR to Texas Stream Team Coordinator.	
	Year 3 and Beyond	Continue water quality monitoring. Utilize project findings in directing future BMPs.	

BMP 2. Work to improve OSSF identification, inspection, pre-installation planning, education, operation, maintenance, and tracking of all OSSFs in the watershed to minimize the potential negative water quality impacts from malfunctioning systems.			
Measurable Goals	**Schedule**		**Monitoring/ Assessment of Progress**
Transfer GIS information as needed to BCHD for use in the OSSF identification efforts. OSSF identification and documentation will begin as funding and personnel time exists.	Year 1	Develop a standard operating procedure for collecting and disseminating GIS information to all entities[2]. Deliver E&O materials concerning OSSF maintenance.	1. Number of educational opportunities conducted (annually). 2. Report progress of OSSF identification in annual report.
	Year 2	Continue to deliver GIS information to all entities and E&O materials. Evaluate operating procedures and adjust to streamline transfer of information.	
	Year 3 and Beyond	Continue delivery of GIS information and E&O materials.	

BMP 3. Additional illicit discharge and dumping efforts to be implemented.			
Measurable Goals	**Schedule**		**Monitoring/ Assessment of Progress**
Currently, the SWMP addresses IDDE through dry weather screening and	Year 1	Develop educational materials for establishing a neighborhood storm drain screen watch program.	1. Number of published educational material on neighborhood storm drain screening program. 2. Record number of neighborhood screen watch activities.
	Year 2	Initiate storm drain screen watch program.	
	Year 3 and Beyond	Continue neighborhood storm drain screen watch.	

[1]PAR – Partner Activity Report identifies the type of support (e.g., material cost, supply cost, personnel time)
[2]Transfer of GIS information will be coordinated between the City of Bryan, City of College Station, and the Brazos County Health Department

BMP 4. Implement sanitary sewer overflow (SSO) initiative as appropriate across the watershed.			
Measurable Goals	**Schedule**		**Monitoring/ Assessment of Progress**
Meet the 2012 Wastewater Master Plan initiatives that are scheduled.	Year 1	Establish SSO initiative.	1. Number of educational opportunities conducted. 2. Number of SSOs identified and repaired. 3. Reduction in SSOs.
	Year 2	Implement SSO initiative (pending funding). Develop repair/ replacement priorities list according to the SSO initiative criteria. Document repairs and replacement of sewer system (annually).	
	Year 3 and Beyond	Continue or modify SSO initiative.	

BMP 5. Continue existing and work to establish new mechanisms that encourage and promote future development and redevelopment that will mitigate adverse water quality impacts in the watershed.			
Measurable Goals	**Schedule**		**Monitoring/ Assessment of Progress**
Implement and promote mechanisms such as existing ordinance amendments, new ordinance development, establish recognition programs for exceptional work in environmental stewardship, and continue to protect riparian areas (existing green spaces near creeks) from future development.	Year 1	Develop and assess a feasible local environmental awards/ recognition program.	1. Number of educational opportunities conducted. 2. Number of awards/recognitions granted annually.
	Year 2	If feasible, establish local environmental awards/recognition program.	
	Year 3 and Beyond	Continue local environmental awards/recognition program if feasible. Work to establish or develop ordinances to better protect instream water quality.	

MCM 1. Public Education, Outreach, and Involvement
Objective:

"To 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. The City will also assess program elements that were described in the previous permit, modify as necessary, and develop and implement elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the maximum extent practicable (MEP)."

The City will put together an educational program that reaches as many citizens as possible, addressing a wide range of topics applicable to a variety of groups.

Main Objectives for Public Education:

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

BMP 1-1: Potential educational opportunities are applicable to different groups of citizens, including homeowners, children, industrial and commercial businesses, and the construction community. Each group has its own contributions to reducing stormwater pollution, and educational material should be developed accordingly. The City will determine which educational topics most need to be addressed in the community, and what topics are most appropriate for each group.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.1 Educational Topics	Review current list of stormwater quality topics and delete outdated or redundant topics.	Provide management with suggest updates.	January, annually
	Review stormwater quality web sites for educational material and topics.	Provide management with updated topics and procurement budget.	April, annually
	Update stormwater quality educational topics and procure educational materials.	Provide website updates to website technician.	July, annually
	Develop or procure educational material for distribution.	Order or procure educational material.	October, annually

BMP 1-2: Stormwater pollution is not a problem bounded by City limits. Activities in surrounding municipalities also effect water quality within the City. Interagency cooperation in Brazos Clean Water lets the City combine available resources in the development of stormwater pollution prevention educational information resources and encourage more widespread stewardship of local water resources.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.2 Interagency Cooperation	Continue interagency cooperation with City of Bryan, Texas A&M, TXDOT, and Brazos County by actively participating in the Brazos Clean Water group.	Active involvement in meetings and group activities.	March, annually

Main Objectives for Public Outreach:

- Make educational material accessible to all citizens.
- Increase public awareness on stormwater issues.

BMP 1-3: The City will distribute educational material to different groups on appropriate topics. Educational material should be widely accessible to all citizens. Different methods of distribution, including in utility bill inserts, online, television ads, and material in public buildings, allows the educational program to reach more citizens than only one.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.3 Educational Materials	Update the Brazos Clean Water and City stormwater websites.	Track the number of hits received on the stormwater website.	Quarterly
	Broadcast public service announcements.	Track the number of times PSAs are broadcast.	Continuously throughout year
	Distribute utility bill inserts and newsletters on designated topics.	Track number of citizens to receive UBIs.	1st and 3rd quarter of each year
	Make educational materials available in publicly accessed city managed locations, such as public works, city hall, community development department, etc.	Track amount of educational material provided to each location.	Restock material at the beginning of each quarter.

Main Objectives for Public Involvement:

- Comply with any State and local public notice requirements when implementing a public involvement/participation program.
- Include the public at large in the development, implementation, and review of the storm water management program.

BMP 1-4: Adopt-A-Greenway programs help keep the areas in parks and along creeks and streams free of trash and safe to enjoy. The Adopt-A-Greenway Program provides an opportunity for residents and businesses to play an active and ongoing role in cleaning and beautifying our open spaces, creeks and multi-use paths/trails.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.4 Adopt-A-Greenway Program	Continue providing volunteer support in the Adopt-a-Greenway program.	Collect volunteer information.	September, annually
	Identify local groups that may be interested in Adopt-a-Greenway program.	Track number of groups interested in Adopt-A-Greenway.	September, annually
	Invite identified groups to join Adopt-a-Greenway program.	Track acres of greenway adopted.	December, annually

BMP 1-5: Streets collect dirt, trash, and debris from surrounding areas and provide a direct route into storm drains. Keeping streets clean is an excellent way to help reduce trash from blocking storm drains or washing into creeks. The Adopt-A-Street Program provides the opportunity for citizens to enhance the look of their community by beautifying and maintaining a street or section of a street.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.5 Adopt-A-Street Program	Identify local groups that may be interested in Adopt-a-Street program.	Track number of groups interested in Adopt-A-Street.	September, annually
	Invite identified groups to join Adopt-a-Street program.	Track amount of streets adopted.	December, annually

BMP 1-6: Storm drains provide an easy target for illegal dumping of motor oil, pesticides, paint, or other hazardous chemicals. These chemicals can damage the health of the receiving waters and impact water quality throughout the watershed. Storm drain stenciling allows citizens to help prevent illegal dumping through stenciling storm drains with messages advising inlets drain straight to creeks.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.6 Storm Drain Stenciling	Identify areas for storm drain stenciling or re-stenciling.	Annual analysis of drainage infrastructure in subdivisions developed pre-2007 to identify areas in need of stenciling	Annually
	Continue to recruit community and campus organizations in need of service projects and/or hours for the Public Works “Only Rain Down the Drain” inlet protection program	Invite volunteers to participate in storm drain stenciling.	February and October, annually

BMP 1-7: Although the City monitors certain areas for unusual discharge or illegal dumping, citizens are more familiar with their areas of the City and more likely to be able to identify anything unusual in local waters. Volunteer monitoring invites citizens to participate in keeping local creeks clean by monitoring areas for polluted stormwater or unexpected runoff.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
1.7 Volunteer Monitoring	Establish a volunteer program for conducting stormwater quality monitoring or dry weather screening.	Schedule a face to face meeting with Texas Stream Team	March, Year 2
	Identify areas that are safe for volunteers to conduct stormwater monitoring.	Walk creek beds to identify accessible areas	March, Year 3
	Develop a schedule for volunteer monitoring.	Provide schedule to management for approval and funding	March, Year 4
	Invite groups to participate in volunteer monitoring program.	Schedule a face to face meeting with HOA’s interested in becoming volunteer monitors	March, Year 5

MCM 2. Illicit Discharge Detection and Elimination
Objective:

Assess current illicit discharge detection and elimination 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 maximum extent practicable (MEP).

Main Objectives:

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

BMP 2-1: A map of the storm sewer system provides City personnel with a comprehensive overview of system intake and discharge. The map can be used to identify areas with dry weather flows, possible dry weather flow sources, properties that may affect the storm sewer system, and what water bodies may be affected by flows in different areas. The map is maintained in and accessible thorough the City's GIS.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.1 MS4 Mapping	Maintain a map of the City's storm sewer system, surface waters, and high risk facilities.	Continue to update/revise "Storm Drainage" Feature Dataset using GIS for capital projects, new developments, facilities, and rehabilitated areas; TXDoT infrastructure mapped by contractor; IT GIS will continue to consume FEMA surface water and floodplain data	Updated continuously as new development occurs
	Maintain a map of the City's sanitary sewer system with locations of sanitary sewer leaks and overflows.	WSD maintains a map in ESRI GIS and updates as changes occur. Leaks and overflows are tracked in the work order system.	Updated continuously as leaks are identified
	Regularly update the City storm sewer map with new drainage structures and outfalls.	Continue to update/revise "Storm Drainage" Feature Dataset using GIS for capital projects, new developments, facilities, and rehabilitated areas; TXDoT infrastructure mapped by contractor	Updated continuously as new development occurs

BMP 2-2: Stormwater programs cannot succeed without knowledgeable City staff. New hires should be properly trained in stormwater related duties, and regular refresher training for all staff prevents any responsibilities from being neglected and allows new procedures to be introduced. Staff training in stormwater duties keeps City staff knowledgeable and ensures new hires are properly trained.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.2 Staff Training	Train staff to update MS4 maps.	Track number of staff trained.	April, annually
	Train inspection and outfall screening personnel on the identification of septic system discharge locations and internal tracking and reporting mechanisms.	Track number of staff trained.	April, annually
	Train personnel on the identification, tracking, and reporting of sanitary sewer leaks.	Track number of staff trained. Sign in sheets are required, time sheets and daily work orders reflect training.	April, annually

	Train inspection and outfall screening personnel on the identification, tracking, and reporting of illicit discharges.	Track number of staff trained.	July, annually
	Train staff in the receiving of sanitary spills and overflows. Utility Dispatch personnel trained to receive reports and enter work requests, Field Operations to respond to sanitary sewer spills.	Track number of staff trained. Employees attend TCEQ-required continuing education which includes identifying spills. In-house training is done annually on SWP3 and SPCC plans.	Continuous
	Train staff in the receiving of illicit discharge reports.	Track number of staff trained.	October, annually

BMP 2-3: Some facilities, including areas with landscaping and lawn care, septic systems, dry cleaning facilities, industrial activities, and used oil collection may pose a higher risk of discharging pollutants into the storm sewer system. Identifying stormwater hot spots allows the City to be aware of areas with a high pollutant potential and monitor those areas for problems.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
2.3 City Stormwater Hot Spots	Identify high risk facilities in the City.	Maintain a list of high risk facilities.	January, annually
	Conduct perimeter checks of high risk facilities to ensure there is no pollutant runoff.	Track number of perimeter checks and results.	January and July, annually

BMP 2-4: Above and below ground storage tanks are often used to store hazardous chemicals or other pollutants that can damage the environment. If these tanks begin to leak, they can discharge pollutants into the storm system or directly into water bodies. Identifying above and below ground storage tanks within the City helps locate possible sources of an illicit discharge.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
2.4 Leaking Above and Below Ground Storage Tanks	Identify City owned above and below ground storage tanks.	Keep a list of identified storage tanks.	January, annually
		Insure annual registration and inspections records are maintained.	January, annually

BMP 2-5: When illicit discharges or illegal dumping is discovered, the City will have a system of recording each event and tracking its progress. Properly recording reported discharge provides a record of actions taken and helps prevent any reports from being lost. It also provides a means to determine what actions have been taken and when an illicit discharge problem has been resolved. The City will track and investigate illicit discharge to ensure appropriate corrective action.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
2.5 Tracking and Investigating Illicit Discharge	Follow internal procedures for tracking, investigating, and reporting sanitary sewer overflows, and corrective actions that have been taken.	Utility Dispatch personnel receive reports and enter work requests. Field Operations respond to sanitary sewer spills, and complete work order with results.	Continuous
	Use internal Work Order system to track reported illicit discharges or illegal dumping, investigate public reports, and corrective actions.	Record any monitoring, screening, or inspections conducted by Public Works employees in Cityworks work order system	Continuous
	Train staff in the receiving of illicit discharges or illegal dumping.	Track number of staff trained.	October, annually

BMP 2-6: As the sanitary sewer system ages, pipes can break or begin to leak. Sanitary sewer leaks can lead to property damage or environmental problems. Additionally, as new development occurs, there may be areas with illicit connections between the sanitary sewer and the storm sewer. The City will conduct appropriate maintenance of sanitary sewer system to prevent leaking, repair sanitary sewer when leaks are found, and remove any illicit connections found.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.6 Elimination of Sewer System and Gray Water Discharge	Follow internal procedures for tracking, investigating, and reporting sanitary sewer leaks, and corrective actions that have been taken.	Employees attend TCEQ-required continuing education which includes identifying spills. By working on the collection system with experienced personnel new employees gain knowledge allowing to identify sewer leaks.	Annually
	Conduct necessary sewer system maintenance and repairs.	WSD has a Capital Improvements project list extending out 5-plus years and an annual maintenance budget to repair and replace collection system as needed.	Continuous
	Eliminate onsite sewage and gray water discharge that pose potential health and safety issues.	Enforcement is pursued as a health and safety issue by Code Enforcement in response to nuisance calls.	As needed
	Train staff in the tracking calls that may be nuisance issues relating to sanitary sewer or gray water discharge.	Track number of staff trained.	October, annually

BMP 2-7: The City will inspect storm sewer outfall areas during dry weather to detect any dry weather flows. Regular inspection ensures uniform screening and minimizes the chance of insufficient inspection. Outfall areas should be mapped so possible sources of dry weather flows or pollutants can be more easily identified. MS4 outfall screening allows the City to regularly screen areas and identify problems quickly.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.7 MS4 Outfall Screening	Identify areas for outfall screening.	Continue to update/revise “Storm Drainage” Feature Dataset, which includes outfall locations, using GIS for capital projects, new developments, facilities, and rehabilitated areas; use to identify outfall areas.	Updated continuously as new development occurs
	Regularly conduct dry weather screening in the identified areas.	Outfalls are inspected by Drainage Maintenance Division personnel as work is being performed on infrastructure “upstream” of a specific outfall	Monthly

BMP 2-8: Sewer pipes may become blocked, have restricted flow, or break. The Wastewater Master Plan helps identify areas where pipes are old and need replacing, or where demand has increased and sewer pipes may need upsizing to handle increased flow. Reviewing and following the master plan helps prevent sanitary sewer overflows from pipes that are no longer adequate for service.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.8 Eliminate Sanitary Sewer Overflow	Review and update master plan for projects designed to eliminate sanitary sewer overflows.	See section 2.6 Capital Improvements and maintenance plans are updated annually.	February, annually

BMP 2-9: Often, members of the public are the first to notice problems with illicit discharge or illegal dumping. The public should be educated on what kind of discharge they may observe, and encouraged to report perceived illicit discharge. The system for the public reporting of illicit discharge is to encourage citizen involvement in stormwater pollution and provide a way for the City to be notified of illicit discharge and dumping problems outside of regularly screened areas.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.9 Public Reporting of Illicit Discharge	Provide a means for public reporting of illicit discharge or stormwater issues.	Maintain a stormwater/illicit discharge hotline for public reporting.	Continuous
	Ensure staff knows the proper procedures to respond to hotline calls.	Create internal procedures for receiving stormwater hotline calls.	September, Year 1
	Educate the public on normal and illicit discharge.	Publish a list on allowed non-stormwater discharge that may be observed.	January, annually
	Investigate illicit discharge reports made by the public.	Track the number of public reports resolved.	December, annually
	Utility Dispatch receives illicit discharge reports made by the public. WSD investigates and if not a sanitary sewer overflow transfers the report to the proper department.	Utility Dispatch phone number is listed on the website and Annual Water Quality Report. Water Resource Coordinator includes this phone number in public presentations, brochures, etc.	Continuous

BMP 2-10: In order to properly handle instances of illegal dumping or illicit discharge, the City must have official regulations and the ability to enforce them. The City has ordinance addressing illicit discharge and stormwater pollution, and will regularly review this ordinance for effectiveness. When necessary, the ordinance will be updated to reflect any new regulations or address areas it does not sufficiently cover.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
2.10 Legal Authority	Review and update City ordinance prohibiting illicit discharge.	Track changes in ordinance or number of resolutions passed.	January, annually

MCM 3. Construction Site Stormwater Runoff
Objective:

Develop, implement and enforce a program requiring operators of small and large construction activities to select, install, and maintain stormwater control measures that prevent illicit discharges to the MEP.

Main Objectives:

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

BMP 3-1: In order to properly regulate construction and development activities, the City must have official regulations and the ability to enforce them. The City has ordinance addressing development projects and stormwater pollution, and will regularly review this ordinance for effectiveness. When necessary, the ordinance will be updated to reflect any new regulations or address areas it does not sufficiently cover.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
3.1 Legal Authority	Review and update ordinance to regulate construction activity.	Track changes in ordinance or number of resolutions passed.	January, annually

BMP 3-2: The construction plans review process should have a focus on stormwater control. This includes review of an erosion control plan, evaluating the appropriateness selected construction BMPs, receiving an NOI for the Construction General Permit, and tracking the number of plans that are reviewed and approved. Reviewing construction plans for stormwater controls can catch potential problems before construction begins.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
3.2 Construction Plans Review	Review construction plans for compliance with stormwater regulations and necessary erosion controls.	Track number of plans approved.	Weekly as plans are submitted
	Maintain a record of reviewed and approved construction site plans.	Update record with new plans.	Weekly as plans are submitted
	Report on the number of construction site plans reviewed annually.	Track number of plans reviewed.	December, annually

BMP 3-3: Construction related public reporting is meant to provide citizens with a way to contact the City about stormwater issues stemming from construction activity. The public should have access to educational material addressing what kind of problems can be observed from construction sites and information on how to report problems. The City will have a way to track reports and the corrective action taken, and inform citizens when problems have been resolved.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
3.3 Construction Related Public Reporting	Develop educational material instructing the public on how to report construction site violations.	Track amount of material distributed.	September, annually
	Develop internal procedures for tracking and responding to public complaints.	Create an SOP for handling public complaints.	October, Year 1

	Investigate public complaints of construction sites.	Track number of investigations.	As complaints are received

BMP 3-4: In order to determine compliance with City stormwater regulations, the City will conduct inspections of all construction sites discharging stormwater into the City storm sewer system. Inspection procedures will include keeping track of all new and existing construction sites, conducting inspections regularly according to a determined schedule, taking appropriate enforcement actions to sites found to be in noncompliance, and maintaining a record of site inspections and their results. Regular site inspections help keep construction sites clean throughout the construction process and minimize noncompliance problems.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
3.4 Construction Site Inspection	Train staff in inspection procedures.	Track number of staff trained.	October, annually
	Develop a schedule for construction site inspection.	Provide schedule to management for approval	October, Year 1
	Provide inspection schedule to construction inspectors	Make formal presentation of schedule to construction inspectors	November, Year 1
	Inspect construction sites according to schedule.	Solicit and collect inspection records from construction inspectors	Beginning of each quarter, annually
	Maintain inspection records	Track number of sites inspected.	December, annually

BMP 3-5: Construction sites found to be in noncompliance with City stormwater regulations will be issued enforcement actions. Enforcement actions will be tracked and include follow up inspections to determine if the site is brought into compliance or if further action is needed. The City will keep a record of noncompliance issues, enforcement actions taken, and the results of enforcement.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
3.5 Construction Site Enforcement	Issue enforcement actions to sites not found to be in compliance.	Track number of sites not in compliance.	Beginning of each quarter, annually
	Conduct follow up inspections to ensure corrective action is taken.	Record follow up inspection results.	As needed
	Maintain a record of inspection reports and enforcement actions from construction site stormwater inspections.	Track number of inspections that required enforcement.	December, annually

BMP 3-6: The City will keep a record of the compliance history for construction sites. If a site is consistently found to be out of compliance, the City may increase inspection frequency or take other action to encourage site compliance with stormwater regulations.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
3.6 Construction Site Compliance	Maintain records of construction site compliance.	Record noncompliance incidents for each site.	December, annually

MCM 4. Post-Construction Stormwater Management in New Development and Redevelopment
Objective:

Develop, implement and enforce a program, to the extent allowable under state 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. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment standards.

Main Objectives:

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

BMP 4-1: In order to properly regulate post-construction and development activities, the City must have official regulations and the ability to enforce them. The City has ordinance addressing post-development stormwater regulation, and will regularly review this ordinance for effectiveness. When necessary, the ordinance will be updated to reflect any new regulations or address areas it does not sufficiently cover.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
4.1 Legal Authority	Create and adopt guidelines to ensure long-term operation and maintenance of post-development structural and non-structural BMPs.	Track number of ordinance or resolutions passed.	January, annually

BMP 4-2: The City will review development plans for compliance with post-construction stormwater regulations. Plans review includes a system for tracking plan reviews, opportunities for developer comments on review, and developer notification of any revisions to plans. This allows the City to regulate post-construction stormwater controls to ensure proper maintenance and functionality.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
4.2 Post-Construction Regulation	Review construction plans to determine compliance with post-construction runoff regulations.	Track the number of plans reviewed.	Continuously, as plans are submitted.
	Distribute post-construction design and permitting guidelines to the engineering community.	Make guidelines available on development guidelines website.	July, annually

BMP 4-3: In order to determine compliance with City stormwater regulations, the City will conduct inspections of all post-construction controls discharging stormwater into the City storm sewer system. Inspection procedures will include keeping track of all completed development, conducting inspections regularly according to construction completion date, taking appropriate enforcement actions to sites found to be in noncompliance, and maintaining a record of site inspections and their results. Inspection of post-construction controls ensures proper maintenance.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
4.3 Post-Construction Inspection	Train new staff and refresh current staff on post-construction runoff regulations and final inspection procedures.	Track number of staff trained.	March, annually

	Perform final inspection of post-construction controls for compliance with regulations.	Track number of inspections.	Final inspection occurs one year after construction is completed.

BMP 4-4: New development and re-development found to be in noncompliance with City stormwater regulations will be issued enforcement actions. Enforcement actions will be tracked and include follow up inspections to determine if the development is brought into compliance or if further action is needed. The City will keep a record of noncompliance issues, enforcement actions taken, and the results of enforcement.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
4.4 Post-Construction Enforcement	Issue enforcement actions to new development not in compliance with post-construction stormwater regulations.	Issue enforcement to sites in violation.	As needed
	Maintain a record of enforcement actions taken.	Track number of enforcement actions taken.	December, annually

BMP 4-5: Capital Improvement Projects are also required to meet post-construction regulations. Additionally, some private development may turn over control of some stormwater controls to the City. In order to make sure these controls are properly installed and maintained, the City should identify City owned stormwater controls.

BMP	**Measureable Goals**	**Method of Assessment**	**Implementation Schedule**
4.5 City Owned Stormwater Controls	Keep a log of City-owned structural stormwater controls.	Continue to update/revise “Storm Drainage” Feature Dataset using GIS for capital projects, new developments, facilities, and rehabilitated areas; TXDoT infrastructure mapped by contractor	Updated as activity occurs

MCM 5. Pollution Prevention and Good Housekeeping
Objective:

Develop and implement an operation and maintenance program, include an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from activities and municipally owned areas including but not limited to parks and open space maintenance; street, road or highway maintenance; fleet and building maintenance; stormwater system maintenance; new construction and land disturbances; municipal parking lots; vehicles and equipment maintenance and storage yards; waste transfer stations; and salt/sand storage locations.

Assess program elements that have been 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.

Main Objectives:

- Review maintenance activities.
- Review maintenance schedules.
- Long-term inspection procedures for structural and nonstructural storm water controls to reduce floatables and other pollutants discharged from the separate storm sewer.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, disposal areas, and waste transfer stations.
- Procedures for properly disposing waste removed from the separate storm sewers and areas listed above (such as accumulated sediments, floatables, and other debris).

BMP 5-1: Many City facilities have the potential to discharge pollutants into storm drains or water bodies. A list of City facilities provides an overview of areas that may require specific maintenance or procedures to prevent stormwater pollution. The City inventory will include areas with herbicide or pesticide application, storage of hazardous chemicals or other pollutants, industrial facilities, vehicle maintenance areas, and City owned stormwater controls.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.1 City Inventory	Maintain an inventory of City-owned industrial facilities.	Ensure inventory list matches TCEQ records for industrial facilities.	January, annually
	Maintain current operating permits required by TCEQ.	Ensure operating permits are current with TCEQ.	January, annually
	Maintain an inventory of City owned and operated parking areas.	Parking Lots have been mapped and stored as a Feature Class in GIS	Updated as City development occurs
	Maintain an inventory of litter collection areas. (mowing areas, adopted streets)	Track number of areas cleared of litter before landscaping. Track number of miles of road covered in Adopt-a-Street program.	January, annually
	Maintain an inventory of areas designated for herbicide and pesticide application.	Update and maintain park property listing with maps of areas within the parks where herbicide and pesticide will be applied.	January, annually
	Maintain an inventory of City-owned landscaping areas.	Update and maintain park property and facility listings that contain landscaping areas.	January, annually
	Maintain an inventory of City-owned vehicles.	Continue to update and revise inventory of all city vehicles and equipment	January, annually

	Maintain an inventory of Public Works facilities that require a Spill Prevention Control and Countermeasures Plan.	Maintain an SPCC at the Public Works Operations Facility.	Continuous
	Maintain a map of City-owned facilities and permanent stormwater controls.	Continue to update/revise "Storm Drainage" Feature Dataset using GIS for capital projects, new developments, facilities, and rehabilitated areas; TXDoT infrastructure mapped by contractor	Updated as new development occurs
	Maintain an inventory of Water Services facilities that require a Spill Prevention Control and Countermeasures Plan.	Maintain an SPCC at Carter Creek Wastewater Treatment Plant, Dowling Road Pump Station, and Sandy Point Pump Station	Continuous

BMP 5-2: Some City facilities, including industrial areas or wastewater treatment plans, may require individual facility stormwater permits. The City will ensure individual facilities are appropriately permitted and in compliance with their permits as part of the overall stormwater management plan.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.2 City Facility Permit Requirements	Determine industrial stormwater permit requirements for City-owned facilities.	Evaluate City facilities that fall under industrial permits.	March, Year 1
	Maintains industrial stormwater permits required by TCEQ.	Keep current permits for Carter Creek Wastewater Treatment Plant and Lick Creek Wastewater Treatment Plant	Continuous

BMP 5-3: Stormwater programs cannot succeed without knowledgeable City staff. New hires should be properly trained in stormwater related duties, and regular refresher training for all staff prevents any responsibilities from being neglected and allows new procedures to be introduced. Staff training in stormwater duties keeps City staff knowledgeable and ensures new hires are properly trained.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.3 Staff Training	Train staff in good housekeeping and pollution prevention practices.	Streets and Drainage personnel training	October, annually
		Water and Wastewater Maintenance personnel training	
		Parks and Recreation personnel training	
		Construction Inspectors training	
		Building Inspectors training	
		CIP Project Managers training	
		Fleet Maintenance personnel training	

BMP 5-4: Some facilities, including areas with landscaping and lawn care, wastewater treatment, industrial activities, and vehicle maintenance may pose a higher risk of discharging pollutants into the storm sewer system. Identifying stormwater pollutants from City facilities allows the City to be aware of areas with a high pollutant potential and perform appropriate preventative maintenance and monitor those for problems.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.4 Pollutants from City Facilities	Identify pollutants that could be discharged from operations and maintenance activities.	Continue to monitor any possible pollutants that may be discharged from operation and maintenance.	Continuous

	Evaluate operations and maintenance procedures to minimize discharge of pollutants.	Update and revise procedures as needed	As needed
	Regularly inspect problem areas and high risk facilities for pollutant discharge.	Facilities are checked regularly	March and September, annually

BMP 5-5: Landscaped areas have the potential to cause stormwater pollution from runoff containing pesticides and herbicides. To minimize pesticide and herbicide runoff, the City will evaluate pesticide and herbicide usage to prevent over-application. This includes applying pesticides and herbicides according to manufacturer recommendations, applying as needed rather than on regular schedule, and avoiding pesticide and herbicide application near storm drains or before rain.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.5 Pesticide and Herbicide Application	Apply herbicides and pesticides according to manufacturer recommendations and any applicable regulations.	Provide training for staff on proper handling and application procedures. Maintain certifications for those staff with pesticide and herbicide applicators licensing.	August, annually

BMP 5-6: During dry periods, pollutants can build up in the storm sewer system. When heavy rain begins, it will may collect the pollutant build up and discharge it into water bodies, or the water will not flow properly in the storm drains, causing flooding problems. The storm inlets and catch basins should be cleaned, especially during periods with little rain. Regular cleaning of catch basins and storm inlets prevents pollutant build up in storm drains and allow stormwater to flow freely.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.6 Catch Basin and Inlet Cleaning	Identify areas where catch basins, surface inlets, or storm drain manholes should be cleaned.	Continue to update/revise “Storm Drainage” Feature Dataset using GIS for capital projects, new developments, facilities, and rehabilitated areas; TXDoT infrastructure mapped by contractor	Continuous
	Implement an inlet and storm drain cleaning program according to the developed inspection schedule.	Continue to recruit community and campus organizations in need of service projects and/or hours for the Department’s “Only Rain Down the Drain” inlet protection program; Record any monitoring, screening, or inspections conducted by Public Works employees in Cityworks work order system	Continuous

BMP 5-7: Roads can collect litter and dirt when not regularly cleaned. Additionally, debris from traffic can accumulate and enter storm drains. The City will implement a plan to properly maintain roads and implement regular sweeping to prevent pollutants from building up in the road or entering storm drains.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.7 Roadway Maintenance and Sweeping	Implement street sweeping according to existing schedule.	The entire city is swept every 4-6 weeks with certain areas swept weekly	Roads swept monthly in rotation
	Implement sweeping of City-owned parking lots.	City-maintained parking lots are swept twice a year.	January and July, annually

	Assess current roadway activities to determine if alternate practices would benefit stormwater quality.	In an effort to reduce the amount of aggregate eroded and subsequently deposited in the City's drainage infrastructure, City streets are no longer treated/repaired using chip sealing/seal coating. Traditional overlays, thin overlays, microsurfacing, edgeline level-ups, and crack sealing serve as the primary methods for treating asphalt distresses.	Regular maintenance and repairs occur as needed

BMP 5-8: Facilities that store hazardous chemicals or other pollutants may cause problems if there is a spill. Identifying potential spills of stormwater pollutants from City facilities allows the City to be aware of areas with a high pollutant potential and prepare for possible spills. Identified facilities should have a Spill Prevention Control and Countermeasures plan in facilities so any spills can be quickly managed and corrected.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.8 Spill Prevention Control and Countermeasures	Identify facilities that require Spill Prevention Control and Countermeasures (SPCC) plans.	Update and maintain park property and facility listings identifying areas that require SPCC plans.	January, annually
	Maintain SPCC plans in identified facilities.	Provide specific locations for printed materials to be available for easy reference.	January, annually
	Maintains a Spill Prevention Control and Countermeasures Plan for WSD facilities.	Keep SPCC for Carter Creek Wastewater Treatment Plant and Lick Creek Wastewater Treatment Plant	Continuous

BMP 5-9: Fleet maintenance can lead to grease, oil, or other automotive fluids spilling into storm drains. Additionally, improperly maintained vehicles may develop fluid leaks and cause stormwater pollution problems. Vehicle maintenance should occur in designated areas with appropriate precautions taken to prevent maintenance byproducts from entering storm drains. Vehicles should receive maintenance according to manufacturer specifications to avoid leaks.

BMP	Measureable Goals	Method of Assessment	Implementation Schedule
5.9 Vehicle Maintenance	Wash City vehicles in approved areas to prevent wash water entering the storm drains.	Vehicles are washed over a grated "wash rack" that is tied into the City's sanitary sewer system	Continuous
	Conduct routine inspection on all vehicles according to manufacturer specifications, also inspecting vehicle for the presence of fluid leaks.	Maintenance inspections are performed by manufacturer specifications and routinely checked for leaks	Vehicles inspected continuously in rotation