



**LRGV TPDES Stormwater Task Force  
Founded in 1998**

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City of Alton  
City of Brownsville  
Cameron County  
Cameron County Drainage District #1  
City of Donna  
City of Edinburg  
City of La Feria  
City of La Joya  
City of Los Fresnos  
City of Mission  
City of Palmview  
City of Primera  
City of San Benito  
City of San Juan  
City of Weslaco

## ***STORMWATER MANAGEMENT PROGRAM***

*Developed in accordance with the requirements of TEXAS  
COMMISSION ON ENVIRONMENTAL QUALITY -  
TEXAS POLLUTANT DISCHARGE ELIMINATION  
SYSTEM - TPDES GENERAL PERMIT TXR040000*

*Permit Term:*

*December 13, 2013 – December 12, 2018*

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Appendix C NOIs and Location Maps

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Appendix F BMP Tables – Regulatory Requirements

## Acronyms and Abbreviations

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BMP	Best Management Practices
CCDD1	Cameron County Drainage District #1
CFR	U.S. Code of Federal Regulations
CRP	Clean Rivers Program
CWA	Clean Water Act
EPA	Environmental Protection Agency
GIS	Geographic Information System
GPS	Global Positioning System
HHW	Household Hazardous Waste
LRGV	Lower Rio Grande Valley
LTSTF	LRGV TPDES Stormwater Task Force
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
P2	Pollution Prevention
SIC	Standard Industrial Classification
SSO	Sanitary Sewer Overflow
SWMP	Storm Water Management Program
SWP3	Storm Water Pollution Prevention Plan
SWQM	Surface Water Quality Monitoring
TCEQ	Texas Commission on Environmental Quality
TAC	Texas Administrative Code
TDA	Texas Department of Agriculture
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
UA	Urbanized Area



## Definitions

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**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.

**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.

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

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

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

**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 storm water except discharges pursuant to a National Pollutant Discharge Elimination System permit (other than the municipal separate storm sewer).

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

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

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

**Municipal Separate Storm Sewer System (MS4)** – a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curb, gutters, ditches, man-made channels, or storm drains.

**National Pollutant Discharge Elimination System (NPDES)** – National program for issuing, modifying, revoking and reissuing, terminating, imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA.

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

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

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

**Outfall** - For the purpose of this permit, a point source at the point where a municipal separate storm sewer discharges to waters of the United States (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.

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

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

**Redevelopment** – alterations of a property that change the footprint of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land.

**Small Municipal Separate Storm Sewer System (MS4)** – refers to a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by the United States, a state, city, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under ' 208 of the CWA; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of a publicly owned treatment works (POTW) as defined at 40 CFR ' 122.2; and (v) Which was not previously authorized under a NPDES or TPDES individual permit as a medium or large municipal separate storm sewer system, as defined at 40 CFR §§122.26(b)(4) and (b)(7). This term includes systems similar to separate storm sewer systems at military bases, large hospital 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 an MS4 that is also operated by that public entity.

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

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

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

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

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

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

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

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

**Waters of the United States** – 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 interstate 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 seas; and

(g) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

## 1.0 INTRODUCTION

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### 1.1 BACKGROUND

The Lower Rio Grande Valley (LRGV) is growing at an incredible rate and by the year 2020 it is estimated that the population will exceed 1.6 million people (LRGVDC, 2003). The 2000 U.S. Census indicated that the population of the LRGV (Figure 1-1) was 924,772, and according to the Texas Water Development Board (TWDB), the population of the Rio Grande Region M (Figure 1-2) will increase by 142% by the year 2060. The population boom in South Texas has forced decision-makers to prioritize environmental concerns due to lack of local, state and federal resources. The top three concerns identified by the Texas Commission on Environmental Quality (TCEQ) in the Lower Rio Grande Subregion are water quantity, water quality, and illegal dumping of municipal solid waste (TCEQ, 2002).



Figure 1-1: Lower Rio Grande Valley Project Area (LRGVDC, 2003)

Because the LRGV over recent years has confronted environmental issues associated with lack of and diminishing solid waste facilities, deterioration of wastewater treatment plants, lack of resources for rehabilitating civil infrastructure, and widespread flooding concerns, surface water quality discussions have not emerged until recently. However, with the publication of the TCEQ's Phase II Municipal Separate Storm Sewer System (MS4) regulations in August 2007, there was a significant increase in the development of stormwater management programs (SWMPs).

### 1.2 REGULATORY OVERVIEW

Since 1948, with passage of the *Water Pollution Control Act* (WPCA), the federal government has attempted to regulate water quality, but it was not until between 1956 and 1966 that the United States Congress aggressively promoted water pollution control. Although water pollution control was mainly in the form of financial assistance to municipalities for the construction of wastewater treatment plants, an additional thrust by Congress in 1965 established the first water quality standards in the country with the passage of the *Water Quality Act* of 1965 (EPA, 2000). It was not until 1972 that water quality based controls were established with passage of the comprehensive *Federal Water*

*Pollution Control Act (FWPCA) Amendments* (now called the *Clean Water Act*). During the 1970s the National Pollutant Discharge Elimination System (NPDES) permitting program was created to regulate discharges of all pollutants to navigable waters from any point source. However, during the 1970s and 1980s the NPDES program primarily targeted discharges of municipal and industrial wastewater. It was not until 1990 that the U.S. Environmental Protection Agency (EPA) promulgated NPDES regulations that established today's municipal stormwater program (EPA, 2005).

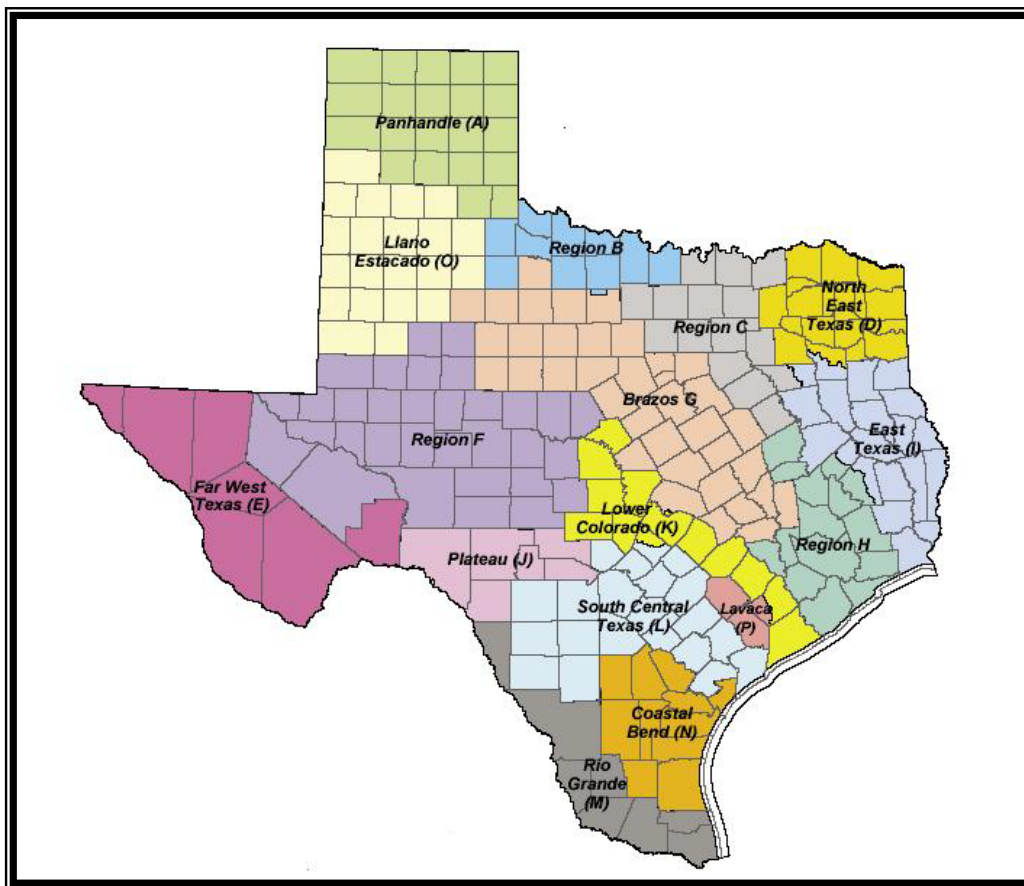


Figure 1-2: Region M (TCEQ, 2003)

Since the passage of these water pollution prevention laws our nation's waters have improved significantly. However, the EPA reports in its annual national Water Quality Inventory that as of 2000, 40% of our surface waters remain impaired. Of this, 13% of impaired rivers, 18% of impaired lake acres, and 32% of impaired estuaries are affected by urban/suburban stormwater runoff. Polluted stormwater runoff is typically transported by municipal separate storm sewer systems (MS4s) and discharged into local waterways without treatment (EPA, 2005).

In 1987, Congress amended the CWA to require the EPA to establish phased NPDES requirements for stormwater discharges. In 1990, the EPA published the initial permit application requirements that included: (a) 11 categories of stormwater discharges associated with industrial activity and, (b) discharges from MS4s that serviced a population of 100,000 or more (Federal Register Vol. 55, 1990). In South Texas, only Laredo, Corpus Christi and San Antonio were designated as Phase I MS4s (EPA, 1996). Although the LRGV cities of Brownsville and McAllen exceed this population today, both fell

under that threshold at that time, as did every other city in the region. In Texas, the NPDES program was renamed the Texas Pollutant Discharge Elimination System (TPDES) in 2001 when the EPA, through a memorandum of understanding, gave the TCEQ authority to administer the program (Federal Register, Vol 68, 1998).

The TCEQ established the Phase II MS4 program in 2003 to extend the Phase I program to include all municipalities in urbanized areas. Urbanized areas are defined as land areas with an overall population density of more than 1,000 people per square mile. As part of the Phase II MS4 program, in August 2007 the TCEQ issued TPDES General Permit Number TXRO40000. A unique attribute of the Phase II program is that federal and state operated MS4s are also regulated. This means small MS4s can include universities, hospitals, prisons, roads, parks and office buildings (EPA, 2005).

The LRGV municipalities' first taste of regional water quality regulations associated with stormwater runoff has not been the NPDES MS4 program, but rather the EPA's Total Maximum Daily Loading (TMDL) program. Many LRGV municipalities use the Arroyo Colorado as a receiving waterway for treated sanitary sewer wastewater and stormwater runoff (Figure 1-3).

### **1.3 ARROYO COLORADO WATERSHED PROTECTION PLAN**

The Arroyo Colorado has been constantly assessed since 1974 by different entities. Of note, in 2002, the TCEQ completed a TMDL assessment that demonstrated that parts of the Arroyo Colorado did not meet water quality standards for dissolved oxygen. Consequently, the TCEQ initiated the Arroyo Colorado Watershed Protection Partnership (ACWPP) to facilitate local efforts to develop a watershed protection plan (WPP) to improve conditions in the Arroyo Colorado. The LRGV municipalities impacted by this project have been actively cooperating with the ACWPP, knowing that the ramifications of the watershed protection plan will affect water quality standards for their regulated water outfalls into the Arroyo Colorado (ACWP, 2007). However, in contrast to the NPDES stormwater regulations facing LRGV cities today, the ACWPP is currently a voluntary compliance effort.

### **1.4 LRGV TPDES STORMWATER TASK FORCE**

In 1998, facilitated by Texas A&M University –Kingsville (TAMUK), a coalition of LRGV municipalities joined to form the LRGV TPDES Stormwater Task Force (LTSTF) in a joint effort to develop a proactive regional approach to comply with the TPDES Phase II MS4 rules. Today this membership includes 16 local governments.

The LTSTF project idea was born from a 1998 local stormwater brainstorming round table held in La Feria, Texas. Several preliminary meetings continued at various cities until the coalition was formally organized. Local government officials and qualified professionals representing various communities in the LRGV region attended these meetings. The group agreed to develop a way to achieve a regional SWMP to comply with the TPDES regulations. The group formalized the organization by contractually empowering TAMUK to facilitate the group and by developing a system of by-laws that included election of board members and officers.

The LTSTF uses a unique, collaborative regional approach to involve various levels of government, including the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA), in developing cost-effective solutions that will achieve compliance with the TPDES rules. The LTSTF project embodies the spirit of the mutually beneficial relationships between local



governments and embellishes this relationship with academia and regulators. After sixteen (16) years, although the impact of this organization has translated into a regional collaboration movement not seen anywhere else in the State, the overall impact of this organization has yet to be fully realized.

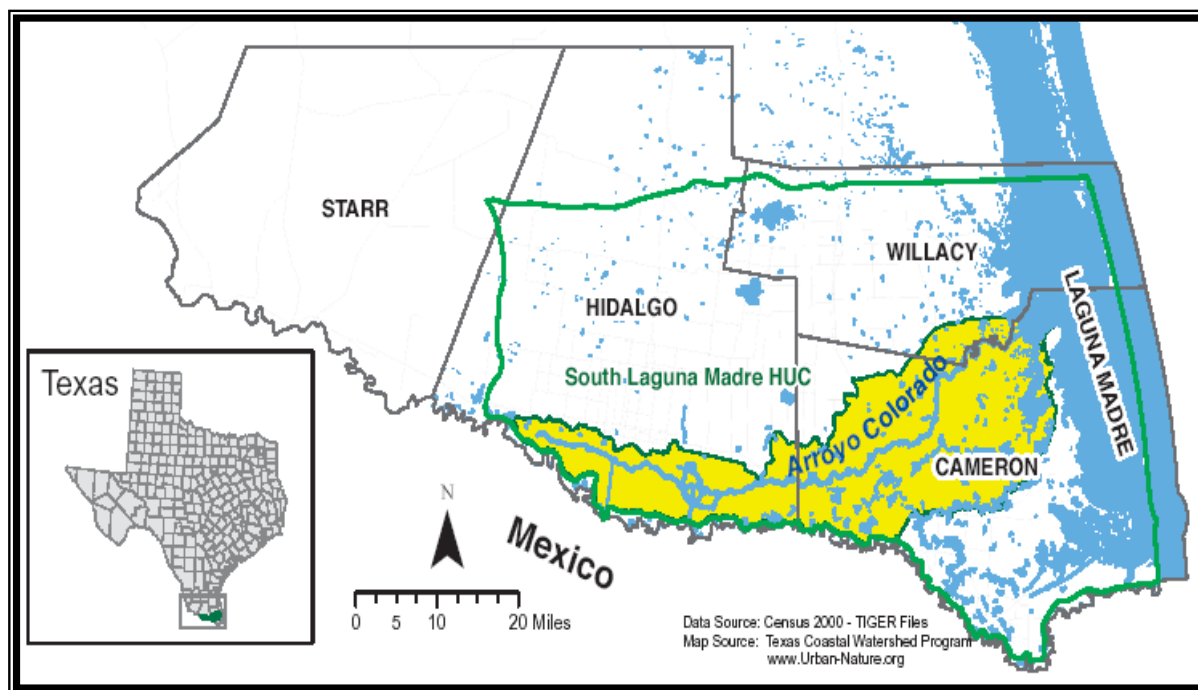


Figure 1-3: Arroyo Colorado Watershed shaded in yellow (ACWP, 2007)

The primary goal of the LTSTF project in 2000 was to develop and implement a regional SWMP to comply with Phase II regulations. In 2006, the LTSTF modified its mission to include stormwater quality management approaches to address broader water quality and watershed issues, particularly those associated with the Arroyo Colorado Watershed Partnership (ACWP), a local Total Maximum Daily Load (TMDL)-related organization. The LTSTF project has already enjoyed side benefits of increased communication and cooperation, and created a collaborative process for discussing water quality issues in the LRGV's four-county region. In addition, this collaboration and others like it, has enabled the participating communities and TAMUK to successfully secure many grant funding opportunities since the Task Force's inception. The LTSTF membership is detailed in Section 2.0.

In 2000, LTSTF participants began entering into local government interlocal agreements with TAMUK, which outlined the desire to address stormwater quality issues on a regional basis and named TAMUK as its facilitator. In executing these interlocal agreements, emphasis was placed on developing programs that study existing successful programs, addressing community goals, providing technical assistance and training, and promoting regional approaches.

In addition to the local governments listed in Appendix C, the following organizations and individuals have been involved in LTSTF project planning and training: the cities of Laredo, Corpus Christi and San Antonio, the ACWP, TCEQ Water Quality Division and Small Business Group, EPA Region 6 Non-Point Source (NPS) Division and Border 2020 Group, South Texas Environmental Institute, Texas Department of Transportation (TxDOT), Texas Sea Grant, Valley Nature Center, Texas Water Resources Institute,

Texas Transportation Institute (TTI), LRGV Development Council (LRGVDC), International Boundary and Water Commission (IBWC), Texas State Soil and Water Conservation Board (TSSSWB), South Texas College, University of Texas-Brownsville (UTB), University of Texas-Pan American (UTPA), Texas Parks and Wildlife (TPWD), and dozens of local ISDs (Independent School Districts).

TAMUK is providing facilitation and management assistance for the LTSTF project, initiating this effort through a National Science Foundation (NSF) grant, other grants, and from annual membership fees collected from the member-local-governments. The funds provide resources for staff to facilitate the group's efforts in formulating LTSTF project goals and developing LTSTF programs. Funds, in part, are also used to host workshops, expert panel discussions, conferences, seminars and training sessions. During a Task Force meeting held in Mission, TX, the organization formed several committees: ordinance, grant, scholarship, outreach, training, housekeeping, construction, and others. TAMUK worked closely with the committees in developing the SWMPs by responding to recommendations and suggestions posed by these committees. Recently, these committees have been replaced with work groups which now work with TAMUK in facilitating the organization and implementing the SWMPs. The new stormwater paradigm presents many questions to local governments in the LRGV. What is a stormwater management program, what will it cost, who will fund the program, is it needed, and how much will it cost? The LTSTF realizes a regional program is a key part of a successful regional storm water program. But, regulators and academia do not have a firm grasp of the costs associated with developing and implementing such a program. Although the average citizen often takes for granted the services municipalities provide, the stormwater services are nonetheless expected. The region now requires that local governments provide a stormwater runoff pollution protection service. This new paradigm requires the development of infrastructure and funding strategies to support providing this service.

### **1.5 PHASE II MS4 PROGRAM**

In August of 2007, the TCEQ finally published the Phase II MS4 regulations after a legal challenge of the rules by several environmental groups was ruled in favor of the EPA in 2005. The legal battle delayed the issuance of permits from 2003 to 2008. The TCEQ MS4 general permit is designated as TXR040000. On August 13, 2007 the TCEQ issued the first round general permit for small MS4s, Permit No. TXR040000, which expired on August 12, 2012. Regulated MS4 operators submitted notices of intent (NOI) along with developed SWMPs by February 11, 2008. The TCEQ administratively continued the first round general permit passed its expiration date of August 12, 2012.

On December 13, 2013 the TCEQ issued their new second round general permit for small MS4s. A copy of the new permit is provided in Appendix A. In summary, the second round permit requires that regulated MS4s comply with a number of administrative and legal requirements and to update, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable to protect water quality.

### **1.6 REGIONAL SWMP**

The LTSTF is jointly submitting this Storm Water Management Program. The LTSTF membership and their respective MS4 level and Permit number is depicted in table 2-0.



Storm Water Quality is now a regional responsibility. This is not the first time local governments have been confronted with environmental water quality regulations that affect the manner that cities allocate funds. TMDL regulations recently started developing new performance measures for local governments, and LRGV communities have become very familiar with the Arroyo Colorado TMDL studies. Based on these studies, the drafters of the ACWPP, which included members of the Task Force and TAMUK, concluded that urban stormwater runoff is contributing to the impairment of the Arroyo Colorado. Thus, the timing of the formation of the Task Force could not have been better. Local governments typically tend to procrastinate when it comes to addressing non-mandated environmental issues, usually because of lack of resources and lack of expertise and understanding rather than due to a non-proactive attitude. Still, finding funds to implement a regional SWMP program is a huge responsibility for any local government. Cost effectiveness and revenue potential were major considerations for our local governments when developing this Task Force.

Local governments are no strangers to the concept of regionalization, and sharing the costs to comply with environmental mandates was received favorably. During LTSTF meetings it was evident that the primary role of local governments in TPDES stormwater management is to address local problems and needs, and at the same time comply with state and federal regulations in the most cost-effective manner. Creating a regional task force responsible for assisting cities with TPDES storm water management was viewed as a proactive idea because the collaboration promotes cooperation and dissemination of ideas. Moreover, a regional entity, with a facilitator like TAMUK, can objectively address the cause of a stormwater concern rather than just the symptoms of the problem, which often happens in the regions like the LRGV where political boundaries drive decision-making and funding allocation.

Regionalization also means that developers, engineers, and others will be less likely to violate stormwater-related policies if they know that a well-managed regional entity, rather than a small municipality, is responsible for the programs. Moreover, regionalization minimizes varying interpretations of the regulations and thus provides for consistent policies from MS4 to MS4. LRGV MS4s recognize that TPDES stormwater management must become a top priority, but they demand innovative and cost-effective programs. The LTSTF realizes that an innovative funding approach for stormwater management will save money.

## **1.7 MS4 LEVELS**

The December 13, 2013 permit imposes compliance obligations on small MS4s based on the population inside the 2010 urbanized area and served by the small MS4. A four level system is defined in Part II.B.5 of the permit, which states:

- **Level 1:** Operators of traditional small MS4s that serve a population of less than 10,000 within an urbanized area;
- **Level 2:** Operators of traditional small MS4s that serve a population of at least 10,000 but less than 40,000 within an urbanized area. This category also includes all non-traditional small MS4s such as counties, drainage districts, transportation entities, military bases, universities, colleges, correctional institutions, municipal utility districts and other special

districts regardless of population served within the urbanized area, unless the nontraditional MS4 can demonstrate that it meets the criteria for a waiver from permit coverage based on the population served;

- **Level 3:** Operators of traditional small MS4s that serve a population of at least 40,000 but less than 100,00 within an urbanized area;
- **Level 4:** Operators of traditional small MS4s that serve a population of 100,000 or more within an urbanized area.

A Level 1 SWMP must address five areas, called Minimum Control Measures (MCM), as follows:

- Public Education, Outreach, and Involvement;
- Illicit Discharge Detection and Elimination;
- Construction Storm Water Runoff Control;
- Post-Construction Storm Water Management in New Development and Redevelopment; and,
- Pollution Prevention/Good Housekeeping for Municipal Operations.

A Level 2 SWMP must address the five MCMs, but must include additional BMPs, as follows:

- Public Education, Outreach, and Involvement;
- Illicit Discharge Detection and Elimination;
  - procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4
- Construction Storm Water Runoff Control;
- Post-Construction Storm Water Management in New Development and Redevelopment; and,
- Pollution Prevention/Good Housekeeping for Municipal Operations.

A Level 2 non-traditional SWMP must address the five MCMs, but must include additional BMPs, as follows:

- Public Education, Outreach, and Involvement;
- Illicit Discharge Detection and Elimination;
  - procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4
  - if illicit connections or illicit discharges are observed related to another operator's MS4, the permittee shall notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittee shall notify the appropriate TCEQ regional office of the possible illicit connection;
- Construction Storm Water Runoff Control;
- Post-Construction Storm Water Management in New Development and Redevelopment; and,
- Pollution Prevention/Good Housekeeping for Municipal Operations.

A Level 3 SWMP must address the five MCMs, but must include additional BMPs, as follows:

- Public Education, Outreach, and Involvement;
- Illicit Discharge Detection and Elimination;
  - procedures to prevent and correct any leaking on-site sewage disposal systems that

- discharge into the small MS4Construction Storm Water Runoff Control;
- source investigation and elimination;
- Construction Storm Water Runoff Control;
  - Construction Site inventory;
- Post-Construction Storm Water Management in New Development and Redevelopment; and,
- Pollution Prevention/Good Housekeeping for Municipal Operations;
  - Storm sewer system O&M;
  - O&M program to reduce pollutants from roads;
  - Mapping;
  - Facility assessment;
  - Facility SOPs;
  - Stormwater controls for high priority facilities;
  - inspections.

A Level 4 SWMP must address the five MCMs, plus an additional MCM (Industrial Stormwater Sources), and must include additional BMPs, as follows:

- Public Education, Outreach, and Involvement;
- Illicit Discharge Detection and Elimination;
  - procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4Construction Storm Water Runoff Control;
  - procedures for identifying priority areas within the small MS4 likely to have illicit discharges, and a list of all such areas identified in the small MS4;
  - field screening to detect illicit discharges;
  - source investigation and elimination;
  - Identification of Priority Areas;
  - Dry Weather Field Screening;
- Construction Storm Water Runoff Control;
  - Construction Site inventory;
- Post-Construction Storm Water Management in New Development and Redevelopment;
  - Inspections; and,
- Pollution Prevention/Good Housekeeping for Municipal Operations;
  - Storm sewer system O&M;
  - O&M program to reduce pollutants from roads;
  - Mapping;
  - Facility assessment;
  - Facility SOPs;
  - Stormwater controls for high priority facilities;
  - inspections.
- Industrial Stormwater Sources

<b>Table 2-0 LOWER RIO GRANDE VALLEY TPDES STORMWATER TASK FORCE</b>			
<b>MS4</b>	<b>Permit No.</b>	<b>2010 Population</b>	<b>MS4 LEVEL</b>
Alamo	TXR040289	18,353	2
Alton	TXR040162	12,341	2
Brownsville	TXR040264	175,023	4
Cameron County	TXR040051	N/A	2
Cameron County Drainage District #1	TXR040236	N/A	2
Donna	TXR040165	15,798	2
Edinburg	TXR040323	77,100	3
La Feria	TXR040286	7,302	1
La Joya	TXR040288	3,985	1
Los Fresnos	TXR040270	5,542	1
Mission	TXR040168	77,058	3
Palmview	New MS4	5,460	1
Primera	TXR040002	4,070	1
San Benito	TXR040161	24,250	2
San Juan	TXR040167	33,856	2
Weslaco	TXR040262	35,670	2

For each MCM the SWMP must:

- Define measurable goals that include the development of ordinances or other regulatory mechanisms, 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;
- Define a schedule including the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action;
- Include a summary of written procedures describing how the permittee will implement the SWMP; and,
- Include a description of a program or a plan of compliance to address discharges to impaired water bodies and Total Maximum Daily Load (TMDL) requirements.

## **1.8 THE PURPOSE OF THIS DOCUMENT**

This document serves as the LTSTF SWMP. It includes all selected BMP's for each of the minimum control measures, measurable goals for each BMP, the evaluation method, an implementation schedule, and a rationale statement. This document provides a clear road map for implementing stormwater quality management activities to improve runoff quality and to maintain permit compliance.

## **1.9 ORGANIZATION OF THIS DOCUMENT**

This document is organized into various sections as follows:

Section 1 – Introduction: This section provides background information on the stormwater regulatory program, defines the purpose of this document, and describes document organization.

Section 2 – MS4 Background: This section provides general information about the MS4, including setting and character, receiving water body conditions, form of government, legal authority, and a rationale statement for the SWMP.

Section 3 – Public Education, Outreach, and Involvement: This section describes the permit requirements, current BMPs, selected new BMP's, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Public Education, Outreach, and Involvement MCM.

Section 4 – Illicit Discharge Detection and Elimination: This section describes the permit requirements, current BMPs, selected new BMP's, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Illicit Discharge Detection and Elimination MCM.

Section 5 – Construction Site Stormwater Runoff Control: This section describes the permit requirements, current BMPs, selected new BMP's, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Construction Site Stormwater Runoff Control MCM.

Section 6 – Post Construction Stormwater Management in New Development and Redevelopment: This section describes the permit requirements, current BMPs, selected new BMP's, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Post Construction Stormwater Management in New Development and Redevelopment MCM.

Section 7 – Pollution Prevention/Good Housekeeping for Municipal Operations: This section describes the permit requirements, current BMPs, selected new BMP's, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Pollution Prevention/Good Housekeeping for Municipal Operations MCM.

Section 8 – Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements: This section describes the permit requirements, current BMPs, selected new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements.

Section 9 – Legal Authority: This section describes the permit requirements and written procedures pertaining to the Legal Authority Requirements.

Section 10.0 – Illicit Discharge Detection and Elimination-Additional BMPS for MS4 Type II, Type III and Type IV: This section describes the permit requirements, new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to MCMs 2 for MS4 Type II, Type III, and Type IV.

Section 11.0 – Construction Site Stormwater Runoff Control -Additional BMPs for MS4 Type III and Type IV: This section describes the permit requirements, new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to MCMs 3 for MS4 Type III and MS4 Type IV.

Section 12.0 – Post Construction Stormwater Management in New Development and Redevelopment - Additional BMPs for MS4 Type III and Type IV: This section describes the permit requirements, new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to MCMs 4 for MS4 Type III and MS4 Type IV.

Section 13.0 – Pollution Prevention/Good Housekeeping for Municipal Operations -Additional BMPs for MS4 Type III and Type IV: This section describes the permit requirements, new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to MCMs 5 for MS4 Type III and MS4 Type IV.

Section 14 – Industrial Stormwater Sources : This section describes the permit requirements, current BMPs, selected new BMPs, measurable goals, implementation schedule, legal authority, and written procedures pertaining to the Industrial Stormwater Sources MCM.

Section 15 – Record-Keeping and Reporting: This section describes the annual reporting requirements of the permit.

Section 16 – References: This section provides references used in writing this document.

## 2.0 MS4 BACKGROUND

### 2.1 BACKGROUND

This section provides a brief background on each MS4 partnering with this SWMP.

Table 2-1 Lower Rio Grande Valley TPDES Stormwater Task Force Background Information						
MS4 (Name)	Incorporated (year)	Jurisdictional Permit Area* (sq mi.)	Geo Coordinates (Long/Lat)	Mean Elevation (ft)	Storm Sewer (Miles)	Conveyance (Miles)
Alamo	1924	29.5	26°11'6"N /98°7'4"W	98	41.29	18.17
Alton	1979	2.11	26°17'6"N/ 98°18'48"W	161	15	4
Brownsville	1924	147	25°56'6"N/ 97°28'48"W	33	350	25
Cameron County	1848	905^	26°10'N/ 97°30'W	60	55.13	43
Cameron County Drainage District #1	1910	450^	25°58'N/ 97°29'W	33	0	45
Donna	1911	5.04	26°10'20"N/ 98°3'42"W	92		
Edinburg	1919	97.83	26°18'15"N/98°9'50"W	95	19.41	15.5
La Feria	1915	42.05**	26°9'47"N/ 97°24'57"W	55	13.03	0
La Joya	1926	2.78	26°14'54"N/98°28'30"W	174	10	6
Los Fresnos	1924	23	26°4'30"N/97°28'50"W	23	2.23	4.99
Mission	1908	77.27	26°12'44"N/98°18'46"W	141	147.2 3	54.4
Palmview	1972	10.3	26°14'13"N/98°22'25"W	145	0	5
Primera	1955	8.41	26°13'42"N/97°45'28"W	42	10.33	8.55
San Benito	1911	54.49	26°7'57"N/97°37'51"W	32	30	10
San Juan	1910	13.12	26°12'N/ 98°9'12"W	105	52	15
Weslaco	1919	59.03	26°9'54"N/97°59'24"W	80	28.46	40.15

\*City limits and Urban ETJ

\*\*City limits, urban and rural ETJ

^Non-traditional MS4: Jurisdictional area only

### 2.2 IMPAIRED RECEIVING WATERBODIES WITH AND WITHOUT TOTAL MAXIMUM DAILY LOADS

Section 303(d) of the CWA directs states to identify and prioritize waters which do not meet water quality standards – called “impaired” – and for which a total maximum daily load (“TMDL”) must be developed. A TMDL is the total amount of a pollutant that can be discharged to a water body without causing the water body to be impaired. The State of Texas and its Clean Rivers Program partners, including the Arroyo Colorado Watershed Partnership (ACWP), routinely monitor receiving water quality and assess receiving water conditions. This information is used to determine which waters do not meet water quality standards. LRGV receiving waters can be categorized into three groups, as follows:

- **Waters Meeting Standards:** These are waters that are meeting surface water quality standards and that do not appear on the Section 303(d) list. The MS4 operator is only required to implement TXR040000 provisions *other than* Part II.D.4 in these watersheds.
- **Impaired Waters without an EPA Approved TMDL:** These are waters that are not meeting surface water quality standards, do appear on the Section 303(d) list, but do not yet have an EPA approved TMDL (See Table 2-2). The MS4 operator is required to implement TXR040000 provisions including Part II.D.4.b. but not including Part II.D.4.a.
- **Impaired Waters with an EPA Approved TMDL:** These are waters that are not meeting surface water quality standards, do appear on the Section 303(d) list, and do have an EPA approved TMDL (See Table 2-3). The MS4 operator is required to implement TXR040000 provisions including Part II.D.4.a. but not including Part II.D.4.b.

<b>Table 2-2</b> <b>List of Waters Meeting Standards</b> <b>Receive Storm Water Discharges Directly from the MS4 (TCEQ, 2013b)</b>		
<b>Nam</b>	<b>Segment ID</b>	<b>303(d) Impairment</b>
None Listed		

<b>Table 2-3</b> <b>List of Impaired Waters without an EPA Approved TMDL that</b> <b>Receive Stormwater Discharges Directly from the MS4 (TCEQ, 2013b)</b>			
<b>Name</b>	<b>Seg. ID</b>	<b>303(d) Impairment Parameter</b>	<b>Category</b>
Arroyo Colorado	2201	PCBs in edible tissue	5a
Arroyo Colorado	2201	Bacteria, DO, Mercury & DDE in edible tissue	5c
Arroyo Colorado	2202	PCBs in edible tissue	5a
Arroyo Colorado	2202	Bacteria	5b
Arroyo Colorado	2202	Mercury in edible tissue	5c
Rio Grande Below Falcon Reservoir	2302	Bacteria	5c
Laguna Madre	2491	DO	5b
Laguna Madre	2491	Bacteria	5c
Laguna Madre (Oyster Waters)	2491OW	Bacteria	5a
Brownsville Ship Channel	2494	Bacteria	5b

5a – TMDL required; 5b- Being Addressed by EPA TMDL; 5c - Being addressed by other action other than TMDL

<b>*Table 2-4</b> <b>List of Impaired Watersheds with an EPA Approved TMDL that Receive Stormwater Discharges</b> <b>from the MS4 Directly or Indirectly Through Another MS4 (TCEQ, 2014)</b>			
<b>Name</b>	<b>Seg. ID</b>	<b>303(d) Impairment Parameter</b>	<b>Category</b>
Arroyo Colorado	2202	DDE in edible tissue (legacy pollutant)	4a

\*The SWMP will not be subject to Part II.D.4.a, due to type of impairment. 4a – State developed TMDL

<b>Table 2-5</b> <b>Lower Rio Grande Valley TPDES Stormwater Task Force</b> <b>Receiving Waters associated with the MS4s</b>				
<b>MS4 (Name)</b>	<b>Rio Grande River*</b>	<b>Arroyo Colorado*</b>	<b>Lower Laguna Madre*</b>	<b>Brownsville Ship Channel*</b>
Alamo		X	X	
Alton		X	X	
Brownsville	X	X	X	X
Cameron County	X	X	X	X
Cameron County Drainage District #1		X	X	X
Donna		X	X	
Edinburg		X	X	
La Feria		X	X	
La Joya	X	X	X	
Los Fresnos		X	X	X
Mission		X	X	
Palmview		X	X	
Primera		X	X	
San Benito		X	X	
San Juan		X	X	
Weslaco		X	X	

\*impaired



### 2.3 FORM OF GOVERNMENT AND LEGAL AUTHORITY

Mayor-Council - Characteristics include:

- Mayor is elected separately from the council, is often full-time and paid, with significant administrative and budgetary authority
- Depending on the municipal charter, the mayor could have weak or strong powers
- Council is elected and maintains legislative powers
- Some cities appoint a professional manager who maintains limited administrative authority

Special District – Characteristics include:

- It’s a unit of local government created by the state for a specific function
- Multi-purpose

County – Characteristics include:

- Governing body is commissioners court, which consists of county judge and four commissioners
- County judge is elected at-large, while commissioners are elected from precincts
- Each serves a four-year term

<b>Table 2-6 LOWER RIO GRANDE VALLEY TPDES STORMWATER TASK FORCE</b>		
<b>MS4</b>	<b>Form of Government</b>	<b>Legal Authority</b>
Alamo	M	H
Alton	M	H
Brownsville	M	H
Cameron County	C	I
Cameron County Drainage District #1	S	I
Donna	M	H
Edinburg	M	H
La Feria	M	H
La Joya	M	H
Los Fresnos	M	H
Mission	M	H
Palmview	M	H
Primera	M	B
San Benito	M	H
San Juan	M	H
Weslaco	M	H

a – General Law A b- General Law B h – Home Rule I – interlocal agreement

M – Mayor-Council C – County S – Special District

A municipality is a Type A general-law municipality if it:

- (1) has incorporated as a Type A general-law municipality under Subchapter A of Chapter 6 and has not acted to change to another type of municipality;
- (2) has changed to a Type A general-law municipality under Subchapter B of Chapter 6 and has not acted to change to another type of municipality; or
- (3) operated, immediately preceding September 1, 1987, under Chapters 1-10, Title 28, Revised Statutes, and has not acted to change to another type of municipality.

A municipality is a Type B general-law municipality if it:

- (1) has incorporated as a Type B general-law municipality under Chapter 7 and has not acted to change to another type of municipality; or
- (2) operated, immediately preceding September 1, 1987, under Chapter 11, Title 28, Revised Statutes, and has not acted to change to another type of municipality.

A home rule municipality operates under a municipal charter that has been adopted or amended as authorized by Article XI, Section 5, of the Texas Constitution.

The governing body of a municipality, county or special district may adopt, publish, amend, or repeal an ordinance, order, rule, policy and/or regulations that:

1. is for the good government, peace, or order of the municipality or for the trade and commerce of the municipality; and
2. is necessary or proper for carrying out a power granted by law to the local government or to an office or department of the local government.
3. adopt an ordinance, act, law, or regulation, not inconsistent with state law, that is necessary for the government, interest, welfare, or good order of the municipality as a body politic.
4. sue and be sued, implead and be impleaded, and answer and be answered in any matter in any court or other place.
5. contract with other persons.
6. take, hold, purchase, lease, grant, or convey property located in or outside the local government, and the governing body of the local government may manage and control the property belonging to the local government.

After obtaining coverage under TXR040000 the LTSTF members updated their respective ordinances. A copy of these regulations is included in Appendix B. In summary, the MS4 stormwater ordinances define the enforcement authority, prohibitions, right of entry, and enforcement procedures necessary to implement the MS4's Illicit Discharge Detection Elimination Program, the Construction Site Program, and the Post- Construction Program.

Each LTSTF member has the authority to

- prohibit illicit discharges and illicit connections;
- respond to and contain other releases
- Control the discharge of spills, and prohibit dumping or disposal of materials other than stormwater into the small MS4;
- require compliance with conditions in the permittee's ordinances, permits, contracts, and/or

- orders;
- require installation, implementation, and maintenance of control measures;
- 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;
- as needed, to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the small MS4;
- respond to non-compliance with BMPs required by the small MS4 consistent with their ordinances or other regulatory mechanism(s);
- enter into interagency or interlocal agreements or other maintenance agreements, as necessary.

Municipalities can assess penalties, including monetary, civil, or criminal penalties. County and special districts are limited in their enforcement authority. According to Part III of the General Permit, a non-traditional MS4 may enter into interlocal agreements with municipalities in order to meet the goals of the permit if the MS4 does not have enforcement authority and is unable to meet the goals of the general permit through its own powers. Cameron County and Cameron County Drainage District #1 will execute interlocal agreements with neighboring MS4s to meet this requirement.

#### **2.4 RATIONALE STATEMENT FOR SWMP**

During the development of this SWMP, the LTSTF considered BMP's that would: protect water quality, comply with TPDES Permit No. 040000, and ensure program costs that would not create undue hardship on MS4 residents and businesses. Established stormwater programs for the MS4 operators were reviewed and evaluated. A variety of BMP's for each minimum control measure was considered and compared. BMP's were ultimately selected based on an evaluation of overall effectiveness, affordability, and suitability to MS4 community.

The SWMP has been developed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP). The MS4 has sought to meet the MEP standard by utilizing existing and new programs or BMP's to fulfill the requirements of this general permit. The program will allow continual adjustment and refinement through MS4 implementation experience and feedback from all sectors of the residential and business community.

Section 3.0 through Section 14.0 describe the SWMP and the Best Management Practices (BMPs) selected to comply with the TPDES program's six (6) Minimum Control Measures (MCMs). Sections 3.0 to 9.0 apply to all MS4 types (I-IV). Sections 10.0 to 14.0 apply to MS4s Type II, III and/or IV. Section 3.0 through Section 7.0 discuss the existing Stormwater programs and include additional activities added to comply with the new TPDES permit requirements.

The SWMP is organized in the following format:

Section 3.0 - Public Education, Outreach, and Involvement

Section 4.0 - Illicit Discharge Detection and Elimination (IDDE)

Section 5.0 - Construction Site Stormwater Runoff Control

Section 6.0 - Post-Construction Stormwater Management in New Development and Redevelopment

Section 7.0 - Pollution Prevention and Good Housekeeping for Municipal Operations

- Section 8.0 - Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements
- Section 9.0 - Legal Authority
- Section 10.0 – Illicit Discharge Detection and Elimination-Additional BMPs for MS4 Type II, Type III and Type IV.
- Section 11.0 – Construction Site Stormwater Runoff Control -Additional BMPs for MS4 Type III & Type IV:
- Section 12.0 – Post Construction Stormwater Management in New Development and Redevelopment - Additional BMPs for MS4 Type III and Type IV.
- Section 13.0 – Pollution Prevention/Good Housekeeping for Municipal Operations -Additional BMPs for MS4 Type III and Type IV.
- Section 14.0 – Industrial Stormwater Sources (MS4 Type IV only)

The MS4 SWMP has been developed to meet the following regulatory requirements from the TCEQ TPDES General Permit TXR40000:

**To the extent allowable under state and local law, a SWMP must be developed, implemented and enforced according to the requirements of Part III of this general permit, for stormwater discharges that reach waters of the U.S., regardless of whether the discharge is conveyed through a separately operated storm sewer system. The SWMP must be developed, implemented and enforced to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA and the TWC.**

**A permittee that implements best management practices consistent with the provisions of their permit and SWMP constitutes compliance with the standard of reducing pollutants to the MEP and will be deemed in compliance with Part III of this permit. This permit does not extend any compliance deadlines set forth in the previous permit effective August 13, 2007.**

The implementation schedule for this SWMP is as follows:

- Year 1: December 2013 – December 2014
- Year 2: December 2014 – December 2015
- Year 3: December 2015 – December 2016
- Year 4: December 2016 – December 2017
- Year 5: December 2017 – December 2018

### **3.0 PUBLIC EDUCATION, OUTREACH, AND INVOLVEMENT**

The following section presents the permit requirement for the Public Education, Outreach, and Involvement Program. The section describes the existing BMPs necessary to implement this program. It describes the measurable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief discussion of current programs, a description of the BMPs selected for each MCM, a proposed implementation schedule for each BMP, and performance measures for the programs.

#### **3.1 Public Education, Outreach, and Involvement Permit Text**

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #1):

#### **1. Public Education, Outreach, and Involvement**

##### **(a) Public Education and Outreach**

- (1) All permittees shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.**  
Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. The program must, at a minimum:
  - a. Define the goals and objectives of the program based on high priority community-wide issues (for example, reduction of nitrogen in discharges from the small MS4, promoting previous techniques used in the small MS4, or improving the quality of discharges to the Edwards Aquifer);**
  - b. Identify the target audience(s);**
  - c. Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;**
  - d. Determine cost effective and practical methods and procedures for distribution of materials.**
- (2) Throughout the permit term, all permittees shall make the educational materials available to convey the program's message to the target audience(s) at least annually.**
- (3) All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2.. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.**
- (4) MS4 operators may partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.**

**(b) Public Involvement**

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

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

- (1) If feasible, consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;
- (2) If feasible, create opportunities for citizens to participate in the implementation of control measures, such as stream clean-ups, storm drain stenciling, volunteer monitoring, volunteer “Adopt-A-Highway” programs, and educational activities;
- (3) Ensure the public can easily find information about the SWMP.

**3.2 DISCUSSION OF PROGRAMS**

The following table lists BMPs that meet the requirements of MCM 1.

**Table 3-0: Public Education, Outreach, and Involvement BMPs**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
3.2.0	Assess Public Education, Outreach and Involvement program*	X	X	X	X	X
3.2.1	Utility Bill Insert, self-service materials and/or mailouts	X	X	X	X	X
3.2.2	Web Site	X	X	X	X	X
3.2.3	Classroom Presentations	X	X	X	X	X
3.2.4	Stenciling	X	X	X	X	X
3.2.5	Videos	X	X	X	X	X
3.2.6	Signage	X	X	X	X	X
3.2.7	Community outreach	X	X	X	X	X
3.2.8	Education	X	X	X	X	X
3.2.9	Public Meetings	X	X	X	X	X
3.2.10	Advisory Workgroup	X	X	X	X	X
3.2.11	Hotline	X	X	X	X	X

X – notes activity, see Section for details

\* New BMP

**3.2.0 Assess Public Education, outreach and involvement program.**

Permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. The program must, at a minimum will define the goals and objectives of the program based on high priority community-wide issues, Identify the target audience(s), develop or utilize appropriate educational materials, and determine cost effective and practical methods and procedures.

**Table 3-1: Implementation Schedule – Assess Public Education, Outreach and Involvement program.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Assess program.	Complete Activity	Annual
Year 2-5	Update program as needed.	Complete Activity	Annual
Year 2-5	Submit NOC as needed	Complete Activity	As needed

**3.2.1 Utility Bill Inserts, self service materials and/or mailouts**

Outreach materials in the forms of small brochures, informative handouts or fact sheets will continue to be distributed with municipal water utility bills and/or mailouts as budget allows. This BMP program will be expanded to include a self-service area located in a public facility (library, city hall, main office, etc.) where community members, visitors, students, and other individuals can obtain outreach materials like brochures, announcements and factsheets. Information shall include various topics like waste oil disposal, use of pesticides and fertilizers on landscaping, household hazardous waste, water quality, and the SWMP in general. The MS4 will develop this program using existing outreach materials developed by the LTSTF, TCEQ, EPA and other organizations.

**Table 3-2: Implementation Schedule – Utility Bill Inserts, self service materials and/or mailouts**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct a delivery of outreach material	Record date and type of outreach material delivered	Twice a year
Year 1-5	Acquire outreach materials	Record type of material obtained	Ongoing, annual
Year 2-5	Assess BMP annually*	Identify and determine annual budget	Annual
Year 1-5	Self Service Area*	Record quantity printed	Annual

\* -new activity

**3.2.2 Web Site**

Background and other information on the SWMP, including the MCMs along with specific information promoting the stormwater education program and other general information can be found at websites listed in Table 3-3 and on <http://stormwater.tamuk.edu>. These web sites are updated regularly.

The objective of this BMP is to continue to provide real time SWMP information to the public, including data, updates, policy and public hearing schedules via a website. The website BMP will continue providing outreach materials, training schedules, downloadable information and an email address for feedback from the public. The websites will specifically target the TPDES Phase II program. The website will be expanded to include a website visitor counter. The feasibility of providing a feedback blog will be assessed.

<b>Table 3-3 LOWER RIO GRANDE VALLEY TPDES STORMWATER TASK FORCE</b>	
<b>MS4</b>	<b>Website Address</b>
Alamo	<a href="http://www.alamotexas.org">www.alamotexas.org</a>
Alton	<a href="http://www.alton-tx.gov">www.alton-tx.gov</a>
Brownsville	<a href="http://www.cob.us">www.cob.us</a>
Cameron County	<a href="http://www.co.cameron.tx.us">www.co.cameron.tx.us</a>
Cameron County Drainage District #1	<a href="http://www.co.cameron.tx.us/ccdd1/CCDD1.html">www.co.cameron.tx.us/ccdd1/CCDD1.html</a>
Donna	<a href="http://www.cityofdonna.org">www.cityofdonna.org</a>
Edinburg	<a href="http://www.cityofedinburg.com">www.cityofedinburg.com</a>
La Feria	<a href="http://www.cityoflaferia.com">www.cityoflaferia.com</a>
La Joya	<a href="http://www.cityoflajoya.com">www.cityoflajoya.com</a>
Los Fresnos	<a href="http://citylf.cloudaccess.net/en/">http://citylf.cloudaccess.net/en/</a>
Mission	<a href="http://www.missiontexas.us">www.missiontexas.us</a>
Palmview	<a href="http://stormwater.tamuk.edu">http://stormwater.tamuk.edu</a>
Primera	<a href="http://stormwater.tamuk.edu">http://stormwater.tamuk.edu</a>
San Benito	<a href="http://www.cityofsanbenito.com">www.cityofsanbenito.com</a>
San Juan	<a href="http://www.cityofsanjuantexas.com">www.cityofsanjuantexas.com</a>
Weslaco	<a href="http://www.weslacotx.gov/">http://www.weslacotx.gov/</a>

**Table 3-4: Implementation Schedule – Web Site**

<b>Permit Period</b>	<b>Activity</b>	<b>Measurable Goals</b>	<b>Completed By (Month and Year or Frequency of Action)</b>
Year 1-5	Update website regularly.	Record date and type of update	Quarterly
Year 2-5	Review amount of visits to the website.*	Record visitors	Once a month
Year 2-5	Assess the BMP*	Tally and evaluate visits, feedback	Once a month

\* -new activity

### **3.2.3 Classroom Presentations**

A curriculum with associated materials and training is available and advertised to classroom teachers from various ISDs located within jurisdictions of MS4 stakeholders. Program materials include curriculum on water quality and water conservation, stormwater pollution prevention, and promotion of the SWMP. Classroom visits are conducted by the MS4 that include guest speakers.

The MS4 will also promote the Arroyo Colorado Watershed Protection Plan (ACWPP) and work with the ACWP to promote mutually beneficial goals. A watershed model, a rain harvesting model, a pervious parking lot model developed by the ACWP and/or the LTSTF are available to the MS4s and the school districts. The BMP will be expanded to include production of a monthly report that will include school visited, activity conducted and number of individuals outreached.



**Table 3-5: Implementation Schedule – Classroom Presentations**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct school room visits at each MS4 jurisdiction	Record date and type of outreach conducted. Record number of individuals outreached.	Ongoing, twice a year
Year 2-5	Evaluate BMP*	Report to include data	Semi-annual

\* -new activity

### 3.2.4 Stenciling

A successful storm drain stenciling program was initiated by the LTSTF during the last permit period. Using grant funding and local funding local government staff provided stormwater education programs and facilitated storm drain stenciling activities with youth and citizens’ organizations, and as part of their stormwater management program. The LTSTF will continue to facilitate the development of partnerships with local youth service groups to perform a significant portion of the storm drain stenciling work as needed. These groups may include the Boys & Girls Clubs, Boy Scouts of America, and local environmental groups. The stencil will include the logo of the LRGV TPDES Task Force, the ACWP, and/or the MS4.

**Table 3-6: Implementation Schedule – Stenciling**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct outreach activities in each MS4’s jurisdiction.	Record date and type of activity.	Ongoing, annual
Year 2-5	Record amount of stencils (retrofitted/replaced, new installs, etc.)	Record information. Achieve 100% by Year 5	Ongoing, Year 5
Year 2-5	Develop, implement inspection program*	Tally stenciling replacement and new installations	Annual
Year 2-5	Assess the BMP*	Tally and evaluate visits, feedback	Annual

\* -new activity

### 3.2.5 Brochures and Videos

The LTSTF has produced various brochures during the previous permit period and successfully delivered to the region. Samples of brochures have routinely been submitted to the TCEQ via the annual reporting process. Topics include soil erosion prevention, rain harvesting, low impact development, and Arroyo Colorado watershed protection topics. *After the Storm, No La Riegues, Chucho Salva el Dia* and similar video campaigns initiated by the EPA have been adopted by the LTSTF. Dozens of videos (PSA format) have been developed by the LTSTF and delivered to the region using public access Channels using Time Warner Channel 17 (local school district television), local government networks (Channel 12), websites and You Tube. The PSA program includes customized projects, i.e. documentary and 30-second clips in English and Spanish. The LTSTF will continue this outreach and will expand the effort by developing new customized PSAs during the permit period. Additional brochures will be developed. Similar delivery tools will be utilized. This BMP also has used self-service stations (public-owned facility lobbies), libraries and outreach events to deliver information.

**Table 3-7: Brochures and Videos**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct outreach activities (i.e. earth day, etc.) in each MS4's jurisdiction.	Record date and type of activity.	Ongoing, annual
Year 2-5	Deliver PSA to MS4 jurisdictions	Record type of delivery and date	Annual
Year 1-5	Deliver outreach materials	Record type of delivery and date(s)	Annual
Year 2-5	Assess the BMP*	Tally and evaluate visits, feedback	Annual

\*-new activity

**3.2.6 Signage**

Stormwater pollution prevention signs were designed, produced and installed along major intersections within the MS4 membership of the LTSTF. The signs bear the logos from the LTSTF, the ACWP and the MS4. Signage were placed throughout the region at locations where pedestrians and vehicle drivers will recognize the sign as an indicator of a local water body that should be protected , the importance of water quality, and the potential effects of stormwater pollution. Messages were conveyed in English and Spanish. This BMP will continue.

**Table 3-8: Signage**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct outreach activities (i.e. earth day, etc.) in each MS4's jurisdiction using a signage theme (NPS, Recycle, etc.).	Record date and type of activity.	Ongoing, annual
Year 1-5	Deliver outreach materials	Record type of delivery and date(s)	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, feedback	Annual

\*-new activity

**3.2.7 Community Outreach**

The LTSTF has provided educational and outreach materials to the community, including brochures, fact sheets and handouts. These materials are made available at City Halls, and throughout public-owned facilities. Materials are made available to developers, businesses, and contractors during the planning and permitting processes. The LTSTF promotes its stormwater pollution prevention outreach program at various annual community events. Booths, brochures, children- friendly materials, and other similar approaches are used. The LTSTF shall consider designating a day or a week for stormwater pollution prevention awareness. The LTSTF has developed partnerships with various regional entities and coordinates an annual conference that promotes the SWMPs of the region and the ACWPP. This highly successful conference is held annually at South Padre Island. This BMP will continue to be developed.

**Table 3-9: Community Outreach**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Help organize an annual conference in the region.	Record type and date. Archive announcements	Ongoing, annual
Year 1-5	Contribute and participate at various annual events (cleanups, etc.).	Record type and date(s) Archive announcements	Ongoing, annual
Year 1-5	Promote outreach (webinars, workshops, etc.) to businesses, engineers, contractors, developers, and the general public.	Record type and date(s) as appropriate	Ongoing, annual
Year 2-5	Establish partnerships (outreach, training, etc.) with professional organizations (ASCE, TFMA, AIA, TPWA, etc.)*	Record events, meetings (dates, activity, etc.)	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, feedback	Annual

\*-new activity

**3.2.8 Education - Arroyo Colorado Watershed Protection Plan**

A watershed information curriculum with associated materials and training is available and advertised to the businesses, educational community and the general community. Program materials promote the ACWP. The LTSTF will continue to work closely with the ACWP to implement this BMP. The impairment of the Arroyo Colorado is of great concern to our region.

**Table 3-10: Education - Watersheds**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Participate in ACWP workgroup and steering committee meetings*	Record type and date. Archive announcements.	Ongoing
Year 2-5	Contribute and participate at various annual events (cleanups, etc.)	Record type and date(s) Archive announcements	Once a year
Year 2-5	Promote outreach (webinars, workshops, etc.)	Record type and date(s) as appropriate	Annual
Year 2-5	Establish partnerships with non-profits*	Record events, meetings (dates, activity, etc.)	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, feedback	Once a year

\*-new activity

**3.2.9 Public Meetings**

Annual public meetings are conducted to provide citizens with the opportunity to discuss various viewpoints and provide input concerning stormwater quality issues. Meetings are publicized in accordance with public notification requirements in each jurisdiction, such as a local newspaper or appropriate publication of wide circulation. Records of the meetings are available. This BMP will be expanded to include an additional public meeting.

**Table 3-11: Public Hearings**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	Conduct Public Hearing	Record place and date. Archive announcements/agendas	Twice a year
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\*-new activity

### 3.2.10 Advisory Workgroup

This BMP has been modified after general consensus indicated that a regional SWMP requires regional input and feedback. The LTSTF is comprised of several workgroups (i.e. outreach, ordinance, construction, grant, etc.) that provide much needed information to effectively implement and evaluate the coalition’s SWMP. The organization will serve as the advisory workgroup for the MS4 partners.

**Table 3-12: Advisory Workgroup**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Conduct meetings	Record place and date. Archive announcements/agendas	Ongoing
Year 2-5	Provide a monthly calendar of events*	Archive announcements/agendas.	Monthly
Year 2-5	Continue membership to LTSTF*	Execute contractual instruments	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\*-new activity

### 3.2.11 Hotline

A Stormwater Hotline has been developed and implemented by the majority of the MS4s to promote outreach, enforce policy and to facilitate public involvement. The hotline is used for reporting illicit and illegal connections and discharges, illegal dumping, emergency and non-emergency incidents and other stormwater related activities. The hotline operator provides readily-available information and direction for further communication if warranted, direct notifications to the proper authorities, and record feedback, comments and recommendations. Several MS4s do not have the capability to isolate a hotline, but use either police or fire dispatch capability during off-hours to promote stormwater policy and related mitigate issues. This BMP will be further assessed.

**Table 3-13: Hotline**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Respond to inquiries and mitigate accordingly	Record date and time of complaints. Tally	Ongoing
Year 2-5	Reporting*	Develop an annual report that includes pertinent information	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\*-new activity

## 4.0 ILLICIT DISCHARGE DETECTION ELIMINATION

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The following section presents the permit requirement for the Illicit Discharge Detection and Elimination Program. The section describes the existing BMPs necessary to implement this program. It describes the measureable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief discussion of current programs, a description of the BMPs selected for each MCM, a proposed implementation schedule for each BMP, and performance measures for the programs.

#### **4.1 PERMIT REQUIREMENTS**

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #2):

### **2. Illicit Discharge Detection and Elimination (IDDE)**

#### **(a) Program Development**

**(1) All permittees shall develop, implement and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non- stormwater discharges, including illegal dumping to the MS4 system. Existing permittees must assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated Permittees shall have the program fully implemented by the end of this permit term. See also Part III.A.1(c).**

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

- a. An up-to-date MS4 map (see Part III.B.2.(c)(1));**
- b. Methods for informing and training MS4 field staff (See Part III.B.2.(c)(2));**
- c. Procedures for tracing the source of an illicit discharge (see Part III. B.2.(c)(5));**
- d. Procedures for removing the source of the illicit discharge (see Part III.B.2.(c)(5));**

**(3) If another MS4 operator notifies the permittee of an illegal connection or illicit discharge to the small MS4, then the permittee shall follow the requirements specified in Part III.B.2.(c)(3).**

**(4) All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.**

#### **(b) Allowable Non-Stormwater Discharges**

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

#### **(c) Requirements for all Permittees**

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

##### **(1) MS4 mapping**

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

- a. The location of all small MS4 outfalls that are operated by the permittee and that discharge into waters of the U.S;**

- b. The location and name of all surface waters receiving discharges from the small MS4 outfalls;
- c. Priority areas identified under Part III.B.2.(e)(1) if applicable.

**(2) Education and Training**

All permittees shall implement a method for informing or training all the permittee’s field staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small MS4 as part of their normal job responsibilities. Training program materials and attendance lists must be maintained on site and made available for review by the TCEQ.

**(3) Public Reporting of Illicit Discharges and Spills**

To the extent feasible, all permittees shall publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4. The permittee shall provide a central contact point to receive reports; for example by including a phone number for complaints and spill reporting.

**(4) All permittees shall develop and maintain on site procedures for responding to illicit discharges and spills.**

**(5) Source Investigation and Elimination**

a. **Minimum Investigation Requirements –** Upon becoming aware of an illicit discharge, all permittees shall conduct an investigation to identify and locate the source of such illicit discharge as soon as practicable.

(i) All permittees shall prioritize the investigation of discharges based on their relative risk of pollution. For example, sanitary sewage may be considered a high priority discharge.

(ii) All permittees shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment.

(iii) All permittees shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.

b. **Identification and Investigation of the Source of the Illicit Discharge –**All permittees shall investigate and document the source of illicit discharges where the permittees have jurisdiction to complete such an investigation. If the source of illicit discharge extends outside the permittee’s boundary, all permittees shall notify the adjacent permitted MS4 operator or TCEQ’s Field Operation Support Division according to Part III.A.3.b.

c. **Corrective Action to Eliminate Illicit Discharge**

(i) If and when the source of the illicit discharge has been determined, all permittees shall immediately notify the responsible party of the problem, and shall require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.

**(6) Inspections –**The permittee shall conduct inspections, as determined appropriate, in response to complaints, and shall conduct follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party.

**4.2 DISCUSSION OF PROGRAMS**

The following table lists BMPs that meet the requirements of MCM 2.

**Table 4-0: Illicit Discharge Detection and Elimination (IDDE) BMPs**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
4.2.0	Assess existing IDDE program*	X	X	X	X	X
4.2.1	Sewer Map	X	X	X	X	X
4.2.2	Illicit Discharge Elimination Ordinance	X	X	X	X	X
4.2.3	Business Education	X	X	X	X	X
4.2.4	Illicit Discharge Inspections	X	X	X	X	X
4.2.5	Business Site Inspections	X	X	X	X	X
4.2.6	Household Hazardous Waste	X	X	X	X	X
4.2.7	Source Investigation and Elimination*		X	X	X	X
4.2.8	Hotline*	X	X	X	X	X

X – notes activity, see Section for details

\*New BMP

#### 4.2.0 Assess existing IDDE program

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

**Table 4-1: Implementation Schedule – Assess existing IDDE program.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	Assess program.	Complete Activity	Annual
Year 2-5	Update program as needed.	Complete Activity	Annual
Year 2-5	Submit NOC as needed	Complete Activity	As needed

#### 4.2.1 Sewer Map

The MS4 members of the LTSTF have developed existing storm sewer maps, which show the locations of municipal storm sewer outfalls, the conveyance system as warranted, and the names and locations of state waters that receive discharges from those outfalls, to assure compliance with the TPDES requirements. The MS4s will continue to update the mapping and assess other strategies to improve this task.

**Table 4-2: Implementation Schedule – Sewer Map**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
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Year 2-5	Update map and continue to improve mapping process	Record significant updates, date and time	Annual
Year 2-5	Provide trainings, meet annually to discuss mapping procedures	Record trainings and meetings (date, time, etc.)	Annual
Year 2-5	Reporting*	Develop an internal report that includes pertinent information	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\* -new activity

#### 4.2.2 Illicit Discharge Elimination Ordinance

The LTSTF developed a Model Illicit Discharge Elimination Ordinance for various activities to comply with the TPDES requirements. MS4s that did not have existing ordinances in place adopted the Model Ordinance, whole or in part to comply with the TPDES requirements. The existing ordinances will be reviewed to assure that additional legal authority, if needed, is incorporated into the existing language of the ordinances. Allowable and prohibited discharges will be reviewed.

**Table 4-3: Implementation Schedule – Illicit Discharge Elimination Ordinance**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Evaluate existing ordinances to compare applicability	Record date and time of audits and/or meetings	Annual
Year 2-5	Enhance outreach program specifically for this BMP. Deliver outreach	Archive outreach materials	Twice per year
Year 2-3	Train inspectors and regulated community	Record training events.	Twice per year
Year 2-5	Reporting*	Develop an annual report that includes pertinent information	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\* -new activity

#### 4.2.3 Business Education

The LTSTF will continue to work together with its various partners to provide stormwater pollution prevention education materials to the commercial sectors identified as potentially significant contributors of pollutants to the MS4, including restaurants and vehicle service facilities. Educational materials will be provided to businesses through the delivery tools defined in the MCM 1 Section. Detailed recordkeeping of activities performed will be maintained. Outreach items will be developed to educate business staff (restaurants, groceries, auto facilities, etc.) to never dump wastes on the ground, and to help individuals understand that the storm drain connects directly to surface water. A stormwater fact sheet will be developed specifically for automotive businesses. Stormwater information will be added to any existing restaurant permitting fact sheets. All of the activities will be conducted in coordination with the activities performed to comply with the MCM #5 requirements so that one educational fact sheet will meet the needs for municipal fleet maintenance operations and vehicle repair and auto body businesses. In addition, the MS4s will obtain and/or develop information on potential stormwater impacts from pressure-washing sidewalks, discarded shopping carts, window



washing, concrete activities, and other business related activities. A brochure and outreach plan regarding BMPs for the aforementioned activities will be developed.

**Table 4-4: Implementation Schedule – Business Education**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	City will develop a strategy for providing outreach to businesses that impact the MS4	Record date and time of complaints, tally	Annual
Year 2	Fact sheets, checklists and other materials will be developed	Keep record of types of brochures	Annual
Year 2	A target number of business will be identified	Keep record of meetings and identify types of businesses	Annual
Year 2-5	Perform two workshop presentations to solicit feedback from businesses. Fact sheets and other materials will be distributed	Archive date, time and venue for each event	Semi-annual
Year 3-5	Site Visits will be conducted. 25% of targeted businesses will be contacted each year	Compare actual visits to projections.	Annual
Year 3-5	City will develop a strategy for providing outreach to businesses that impact the MS4s	Keep record of meetings and identify types of businesses	Annual
Year 2-5	Reporting*	Develop an internal annual report that includes pertinent information	Annual
Year 2-5	Assess BMP*	Tally and evaluate events, obtain feedback	Annual

\* -new activity

#### **4.2.4 Illicit Discharge Inspections**

The LTSTF will continue developing a program to conduct inspections to identify the presence and determine the source of illicit connections and illegal dumping activities. The program will incorporate policy-making, response, inspections, spill response and reporting, auditing and training. The program will include training of building inspectors and other staff. If necessary, the MS4s will entertain privatization of this BMP, in part, or in its entirety.

**Table 4-5: Implementation Schedule – Illicit Discharge Inspections**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-3	Develop a comprehensive program to include tracing, removing, investigation, corrective action, and inspection.*	Record activities conducted	Annual
Year 2-5	Training	Record training events.	Semi-annually
Year 2-5	Assess BMP.*	Tally and evaluate events, obtain feedback	Annual

\* new activity

#### **4.2.5 Business Site Inspections**

The LTSTF will continue to develop stormwater criteria to be required of all businesses, and solicit input from existing businesses regarding feasibility and appropriateness of the new criteria. A Criteria Checklist will be developed for vehicle repair shops, auto body shops, restaurants and other similar businesses. The program will be enhanced to include inspections of major businesses and of businesses that have the potential to adversely impact the MS4. Outreach will be conducted using MCM 1 delivery tools.

**Table 4-6: Implementation Schedule – Business Site Inspections**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	City will develop an outreach strategy for businesses that impact the MS4	Record date and time of events. Tally.	Ongoing, annual
Year 2-5	Fact sheets, checklists and other materials will be developed	Record information on delivery.	Annual
Year 2-3	A target number of business types will be identified	Record information	Annual
Year 3-5	City will perform business inspections	Inspect 2 businesses from each target type	Annual
Year 3-5	City will conduct a workshop to solicit feedback from businesses	Record information on delivery.	Semi- annually
Year 3-5	1/3 of targeted businesses will be inspected each year	Record information on delivery.	Annual
Year 2-5	Assess BMP.*	Tally and evaluate events, obtain feedback	Annual

\* new activity

#### 4.2.6 Household Hazardous Waste

The MS4s will continue to develop a Household Hazardous Waste Outreach Program. This BMP has been incorporated into MCM #1. The City will seek partnerships with the ISDs and the ACWP to possibly expand the program.

**Table 4-7: Implementation Schedule – Household Hazardous Waste**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Analyze potential of a comprehensive program	Develop a budget, cost, and feasibility report	Ongoing, annual
Year 2-5	Outreach program	Record announcements and activities	Annual
Year 3-5	Identify data that can be used to develop a good program, including quantity of waste produced, minimization goals, costs, benefits, and waste disposal quantities	Record data identified	Annual
Year 3	Determine target community, number of residents, businesses, etc.	Record data identified	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

#### 4.2.7 Source Investigation and Elimination

The MS4s will develop a Source Investigation and Elimination program. The program in response to an illicit discharge will include investigation to identify and locate the source of such illicit discharge as soon as practicable. The program will prioritize risk, provide for reporting as required, and the program shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed. The program will allow for notification of illicit discharges outside of its jurisdiction, and will provide for corrective action procedures. An inspection program will be developed.

**Table 4-8: Implementation Schedule – Source Investigation and Elimination**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Develop Source Investigation and Elimination program	Complete Activity	Annual
Year 3-5	Implement Program	Complete Activity	Annual
Year 2-5	Assess the BMP	Tally and evaluate events, obtain feedback	Annual

#### 4.2.8 Hotline

A Stormwater Hotline has been developed and implemented by the majority of the MS4s to report illicit and illegal connections and discharges, illegal dumping, emergency and non-emergency incidents and other stormwater related activities. This program will have on-site readily available information and response procedures. The hotline operator provides readily-available information and direction for further communication if warranted, direct notifications to the proper authorities, and record feedback, comments and recommendations. Several MS4s do not have the capability to isolate a hotline, but use either police or fire dispatch capability during off-hours to promote stormwater policy and related mitigate issues. This BMP will be further assessed.

**Table 4-9: Hotline**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Respond to inquiries and mitigate accordingly	Record date and time of complaints, tally	Ongoing, annual
Year 2-5	Reporting*	Develop an annual report that includes pertinent information	Annual
Year 2-5	Assess the BMP*	Tally and evaluate events, obtain feedback	Annual

\* -new activity

#### 4.3 Allowable Non-Stormwater Discharges

Non-stormwater flows listed in Part II.C of the new permit do not need to be considered by the permittee as an illicit discharge requiring elimination unless the permittee or the TCEQ identifies the flow as a significant source of pollutants to the small MS4. Pursuant to the new rules, the following non-stormwater flows are allowable discharges, unless the flows are determined by the permittee or the TCEQ to be significant contributors of pollutants to the small MS4, or they are otherwise prohibited by the MS4 operator. The permittee may regulate these flows through its legal authority.

1. Water line flushing (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
2. Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;
3. Discharges from potable water sources that do not violate Texas Surface Water Quality Standards;
4. Diverted stream flows;
5. Rising ground waters and springs;
6. Uncontaminated ground water infiltration;
7. Uncontaminated pumped ground water;
8. Foundation and footing drains;
9. Air conditioning condensation;
10. Water from crawl space pumps;
11. Individual residential vehicle washing;
12. Flows from wetlands and riparian habitats;
13. Dechlorinated swimming pool discharges that do not violate Texas Surface Water Quality Standards;
14. Street wash water excluding street sweeper waste water;
15. Discharges or flows from emergency firefighting activities (firefighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
16. Other allowable non-stormwater discharges listed in 40 CFR § 122.26(d)(2)(iv)(B)(1);
17. Non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR050000 or the TPDES Construction General Permit (CGP) TXR150000;
18. Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
19. Other similar occasional incidental non-stormwater discharges such as spray park water, unless the TCEQ develops permits or regulations addressing these discharges

## 5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

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The following section presents the permit requirement for the Construction Site Storm Water Runoff Control Program. The section describes the existing and new BMPs necessary to implement this program. It describes the measureable goals for each BMP and the timeline (or frequency) for each implementation action.

### 5.1 PERMIT REQUIREMENTS

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit.

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #3):

#### **3. Construction Site Stormwater Runoff Control**

##### **(a) Requirements and Control Measures**

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

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

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

##### **(b) Requirements for all Permittees**

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

**(1) All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be included in the annual report. Such written procedures must be maintained on site or in the SWMP and made available for inspection by the TCEQ.**

**(2) All permittees shall require that construction site operators implement appropriate erosion and sediment control BMPs. The permittee's construction program must ensure the following minimum requirements are effectively implemented for all small and large construction activities discharging to its small MS4.**

**a. Erosion and Sediment Controls - Design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants.**

**b. Soil Stabilization - Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed within a period of time determined by the permittee. In arid, semiarid, and drought- stricken areas, as determined by the permittee, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the permittee.**

**c. BMPs – Design, install, implement, and maintain effective BMPs to minimize the discharge of pollutants to the small MS4. At a minimum, such BMPs must be designed, installed, implemented and maintained to:**

**(i) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters;**

**(ii) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and**

**(iii) Minimize the discharge of pollutants from spills and leaks.**

**d. As an alternative to (a) through (c) above, all permittees shall ensure that all small and large construction activities discharging to the small MS4 have developed and implemented a stormwater pollution prevention plan (SWP3) in accordance with the TPDES CGP TXR150000. In arid, semiarid, and drought-stricken areas, as determined by the permittee, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the permittee. As an alternative, vegetative stabilization measures may be implemented as soon as practicable.**

**(3) Prohibited Discharges - The following discharges are prohibited:**

**a. Wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control;**

**b. Wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials;**

**c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and,**

**d. Soaps or solvents used in vehicle and equipment washing;**

**e. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs.**

**(4) Construction Plan Review Procedures**

**To the extent allowable by state, federal, and local law, all permittees shall maintain and implement site plan review procedures, that describe which plans will be reviewed as well as when an operator may begin construction. For those permittees without legal authority to enforce site plan reviews, this requirement is limited to those sites operated by the permittee and its contractors and located within the permittee's regulated area. The site plan procedures must meet the following minimum requirements:**

**a. The site plan review procedures must incorporate consideration of potential water quality impacts.**

b. The permittee may not approve any plans unless the plans contain appropriate site specific construction site control measures that, at a minimum, meet the requirements described in Part III.B.3.(a) or in the TPDES CGP, TXR150000.

The permittee may require and accept a plan, such as a SWP3, that has been developed pursuant to the CGP, TXR150000.

**(5) Construction Site Inspections and Enforcement**

To the extent allowable by state, federal, and local law, all permittees shall implement procedures for inspecting large and small construction projects. Permittees without legal authority to inspect construction sites shall at a minimum conduct inspections of sites operated by the permittee or its contractors and that are located in the permittee's regulated area.

a. Inspections must occur at a frequency determined by the permittee, based on the evaluation of factors that are a threat to water quality, such as: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-stormwater discharges; and past record of non-compliance by the operators of the construction site.

b. Inspections must occur during the active construction phase.

(i) All permittees shall develop, implement, and revise as necessary, written procedures outlining the inspection and enforcement requirements. These procedures must be maintained on site or in the SWMP and be made available to TCEQ.

(ii) Inspections of construction sites must, at a minimum:

1. Determine whether the site has appropriate coverage under the TPDES CGP, TXR150000. If no coverage exists, notify the permittee of the need for permit coverage.

2. Conduct a site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the small MS4's requirements.

3. Assess compliance with the permittee's ordinances and other regulations.

4. Provide a written or electronic inspection report.

c. Based on site inspection findings, all permittees shall take all necessary follow-up actions (for example, follow-up-inspections or enforcement) to ensure compliance with permit requirements and the SWMP. These follow-up and enforcement actions must be tracked and maintained for review by the TCEQ.

For non-traditional small MS4s with no enforcement powers, the permittee shall notify the adjacent MS4 operator with enforcement authority or the TCEQ's Field Operations Support Division according to Part III.A.3(b).

**(6) Information submitted by the Public**

All permittees shall develop, implement and maintain procedures for receipt and consideration of information submitted by the public.

**(7) MS4 Staff Training**

All permittees shall ensure that all staff whose primary job duties are related to implementing the construction stormwater program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to conduct these activities. The training may be conducted by the permittee or by outside trainers.

## 5.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of MCM 3.

**Table 5-0: Construction Site Stormwater Controls BMPs**

Section	Description of BMP	YEAR SCHEDULE (YEAR)				
		1	2	3	4	5
5.2.0	Assess existing Construction Site Stormwater Control program**	X	X	X	X	X
5.2.1	Erosion Control Ordinance	X	X	X	X	X
5.2.2	Construction Site Plan Review and Oversight	X	X	X	X	X
5.2.3	Site Inspection and Policy Enforcement	X	X	X	X	X
5.2.4	Training for regulated community*	X	X	X	X	X
5.2.5	Construction Site Waste Management	X	X	X	X	X
5.2.6	Provide Construction BMP outreach program*	X	X	X	X	X

X – notes activity, see Section for details

\* revised BMP

\*\* New BMP

### 5.2.0 Assess existing Construction Site Stormwater Control program

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

**Table 5-1: Implementation Schedule –Assess existing Construction Site Stormwater Control program.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Assess program	Complete Activity	Annual
Year 2-5	Update program as needed.	Complete Activity	Annual
Year 2-5	Submit NOC as needed	Complete Activity	As needed

### 5.2.1 Erosion Control Ordinance

The LTSTF developed an Erosion Control Ordinance and/or an Order (non-traditional MS4s) for various activities to comply with the construction control TPDES requirements. The MS4s adopted this ordinance, or a variation of the ordinance, and/or identified an existing similar ordinance to assure compliance with the TPDES rules. The MS4s have the legal authority to develop ordinances, and amend as needed. To comply with the new rules this existing BMP will be reviewed to assure language is included to accept input from public, prohibited discharges, and other additional items as stated in the language of MCM #5. The MS4s will continue to work with local partnerships in evaluating and implementing this ordinance. This ordinance includes engineering, construction and post-construction requirements that focus on erosion control. Furthermore, the ordinance regulates construction site stormwater runoff controls that reduce pollutants in stormwater runoff. Moreover, the ordinance stipulates sanctions to ensure compliance, to the extent allowable under Federal, State or local law. Non-traditional MS4s will adopt interlocal agreements with neighboring MS4s as required



under the new rules. The ordinance regulates construction activities that result in land disturbance of greater than or equal to one (1) acre pursuant to the TPDES regulations. Reduction of pollutants in stormwater discharges from construction activity disturbing less than one acre is included in the program if that construction activity is part of a larger common plan of development that would disturb one (1) acre or more. The BMP will be reviewed to comply with the small and large construction site definition, and other elements of the MCM#5. The MS4 legal department or attorney will be required to review the new ordinance language. The ordinance will be evaluated based on historical efforts, TCEQ guidelines and EPA sources.

**Table 5-2: Implementation Schedule – Erosion Control Ordinance**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1	Evaluate existing ordinances to compare applicability	Archive meetings and activities, complete activity	Ongoing, annual
Year 2	Amend ordinances and Orders as needed and adopt. Execute legal authority instruments*	Archive meetings and activities, complete activity	Annual
Year 2-5	Develop and deliver outreach program specifically for this BMP. Work with partnerships and regional workgroups..	Report copies of announcements and record delivery tallies of outreach materials	Ongoing
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

**5.2.2 Construction Site Plan Review and Oversight**

A construction site stormwater runoff control program was developed and implemented to assure adequate design, implementation, and maintenance of BMPs at construction sites within the MS4s’ service areas to reduce pollutant discharges and protect water quality. The program includes the development and implementation of:

- i. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
- ii. Procedures for site plan review during planning and permitting which incorporate consideration of potential water quality impacts;
- iii. Permitting process;
- iv. A policy that defines responsibility for the on-site Stormwater Pollution Prevention Plan (SWP3) pursuant to TPDES regulations;
- v. Enforcement;
- vi. Training;
- vii. Public input, and recordkeeping;

The BMP will be assessed and amended as required to assure compliance with the additional requirements including but not limited to development of inspection reports, public input, to frequency of inspections, to approval process of plans, and delivery of enforcement information.

**Table 5-3: Implementation Schedule – Construction Site Plan Review and Oversight**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	Review and revamp existing construction plan review process, include review of subdivision model ordinance, amend as needed	Complete Activity	Annual
Year 3-5	Fully implement revised program	Complete Activity	Annual
Year 2-5	Develop and implement outreach program	Record announcements and activities	Annual
Year 3-5	Track MS4 issued TPDES permits	Record data identified	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

**5.2.3 Site Inspection and Policy Enforcement**

The LTSTF construction site stormwater runoff control program has an inspection and enforcement component. The MS4s developed or are developing procedures for site inspection and enforcement of control measures. The MS4s will continue to evaluate in house staff and identify resources to implement and improve this BMP. The MS4s will consider privatization of this BMP.

**Table 5-4: Implementation Schedule – Site Inspection and Policy Enforcement**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	Review site inspection program, amend as needed.	Complete Activity	Annual
Year 2-5	Continue to develop and improve enforcement policy.	Complete Activity.	Annual
Year 2-5	Bring utility construction, commercial, residential and other building TPDES inspections under one authority and/or develop a Stormwater department.*	Complete Activity.	Annual
Year 1-5	Train MS4 staff.	Complete and document activity. Maintain log of attendees.	Annual
Year 3-5	Implement revised inspection program as needed.	Complete Activity.	Annual
Year 2-5	Develop and deliver outreach program.	Record announcements and activities. Tally delivery.	Annual
Year 3-5	Develop archive inspection report process*	Record and report data identified.	Annual
Year 2-5	Assess.*	Develop pertinent information	Annual

\*new activity

**5.2.4 Training for Regulated Community**

The LTSTF did not develop a contractor certification program, but developed a training program for the TPDES regulated community that included courses, webinars and other events solicited to and attend by contractors, engineers, and other professionals. The LTSTF will continue to develop education requirements, course curricula, continuing education classes, training, and other activities that will assure competent project managers will oversee TPDES regulated activities within construction sites within the MS4s’ permitted areas. The LTSTF will continue to work with partnerships to review certification programs within the State.

**Table 5-5: Implementation Schedule – Training for Regulated Community**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Develop partnerships with professional organizations*	Archive meetings, presentations and identify groups	Ongoing, annual
Year 2-5	Provide awareness and outreach	Record announcements and activities	Annual
Year 2-5	Provide a continuing education course	Complete and document activity, maintain log of attendees	Semi-annual
Year 3-5	Obtain feedback from regulated community, evaluate program, and update as necessary	Record data identified	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\*new activity

**5.2.5 Construction Site Waste Management**

The LTSTF developed requirements for construction site operators to control waste such as discarded building materials, refueling, concrete truck washout, chemicals, litter, and sanitary waste at construction site that may cause adverse impacts to water quality.

**Table 5-6: Implementation Schedule – Construction Site Waste Management**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Improve existing program	Archive meetings, new program requirements and complete activity	Ongoing, annual
Year 2-5	Outreach program. Implement awareness program	Record announcements and activities	Annual
Year 3	Start inspections.	Record data identified. Provide reports	Ongoing, annual
Year 2-5	Assess*	Develop pertinent information	Annual

\*new activity

**5.2.6 Provide Construction BMP outreach program**

Although the LTSTF did not develop a comprehensive menu of pre-approved BMPs for use within their permitted areas, outreach material describing construction BMPs were developed and delivered as part of the outreach program.

**Table 5-7: Implementation Schedule – Provide Construction BMP outreach program**

<b>Permit Period</b>	<b>Activity</b>	<b>Measurable Goals</b>	<b>Completed By (Month and Year or Frequency of Action)</b>
Year 1-5	Develop BMP outreach and awareness program	Complete and document activity	Ongoing, annual
Year 2-5	Use website for outreach	Record announcements and activities	Annual
Year 2-5	Assess.*	Develop pertinent information	Annual

## **6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

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The following section presents the permit requirement for the Post-Construction Storm Water Management in New Development and Redevelopment Program. The section describes the existing BMPs necessary to implement this program. It describes the measureable goals for each BMP and the timeline (or frequency) for each implementation action.

### **6.1 PERMIT REQUIREMENTS**

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit.

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #4):

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

written procedures must be maintained either on site or in the SWMP and made available for inspection by TCEQ.

(2) All permittees shall document and maintain records of enforcement actions and make them available for review by the TCEQ.

(3) Long-Term Maintenance of Post-Construction Stormwater Control Measures All permittees shall, to the extent allowable under state, federal, and local law, ensure the long-term operation and maintenance of structural stormwater control measures installed through one or both of the following approaches:

- a. Maintenance performed by the permittee. See Part III.B.5
- b. Maintenance performed by the owner or operator of a new development or redeveloped site under a maintenance plan. The maintenance plan must be filed in the real property records of the county in which the property is located. The permittee shall require the owner or operator of any new development or redeveloped site to develop and implement a maintenance plan addressing maintenance requirements for any structural control measures installed on site. The permittee shall require operation and maintenance performed is documented and retained on site, such as at the offices of the owner or operator, and made available for review by the small MS4.

## 6.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of MCM 5.

**Table 6-1: Post-Construction Stormwater Management in New Development and Redevelopment BMPs**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
6.2.0	Assess Post Construction Program**	X	X	X	X	X
6.2.1	Post-Construction Ordinance	X	X	X	X	X
6.2.2	Drainage Design Policy	X	X	X	X	X
6.2.3	BMP Maintenance*	X	X	X	X	X
6.2.4	Land Use Plan	X	X	X	X	X

*X – notes activity, see Section for details*

*\* revised BMP*

*\*\* New BMP*

### **6.2.0 Assess existing Post Construction Stormwater Management in New Development and Redevelopment Program**

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

**Table 6-0: Implementation Schedule – Post Construction Stormwater Management in New Development and Redevelopment Program.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Assess program	Complete Activity	Annual
Year 2-5	Update program as needed	Complete Activity	Annual
Year 2-5	Submit NOC as needed	Complete Activity	As needed

**6.2.1 Post-Construction Ordinance**

The management of stormwater runoff from sites after the construction phase is vital to controlling the impacts of development on urban water quality. The increase in impervious surfaces such as rooftops, roads, parking lots, and sidewalks due to land development can have a detrimental effect on aquatic systems. Increased areas of impervious cover have been associated with stream warming and loss of aquatic biodiversity in urban areas. Runoff from impervious areas can also contain a variety of pollutants that are detrimental to water quality, including sediment, nutrients, road salts, heavy metals, pathogenic bacteria, and petroleum hydrocarbons.

The main goal of the post-construction for existing development is to limit surface runoff volumes and reduce water runoff pollution loadings. The LTSTF developed a Model ordinance during the previous permit period, worked with the MS4s in identifying post construction BMP strategies.

Pursuant to the new rules, the MS4s will expand the post-construction program to include further review the Model Ordinance, expand the activities of the existing ordinance workgroup to include adoption of this ordinance, and develop an outreach program (new activity). Other ideas will be discussed (innovative methods, incentive program, offsite mitigation, etc.) that can be included in an ordinance to improve its ability to control stormwater runoff.

The ordinance will include what nonstructural and structural stormwater practices are allowed within the public and private sector community. The MS4s may also wish to add language regarding on-site stormwater requirements and whether off-site treatment is an option. The MS4s will review examples of existing ordinances including language dealing with each of the issues above. The MS4s will examine each ordinance for the language that is appropriate for the stormwater program (EPA, 2008).

**Table 6-2: Implementation Schedule – Post-Construction Ordinance**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Evaluate existing ordinances to compare applicability, amend as needed.	Archive meetings, new program requirements and complete activity	Ongoing, annual
Year 3-4	Adopt and enforce ordinance, update as needed	Complete activity	Annual
Year 3-4	Develop Enforcement program*	Complete activity	Annual
Year 4	Implement Enforcement program*	Complete activity	Annual
Year 2-5	Outreach program, implement awareness program*	Record announcements and activities	Annual
Year 3	Work with partnerships and regional workgroup*	Record data identified, provide reports	Ongoing, annual
Year 2-5	Training	Complete and document activity, maintain log of attendees.	Ongoing, annual
Year 2-5	Assess*	Develop pertinent information	Annual

\*new activity

### 6.2.2 Drainage Design Policy

The LTSTF reviewed existing drainage design policies and provided recommendations to the MS4s that included provisions for the implementation of proper erosion and sediment controls, plat recordings, post construction BMPs, housekeeping of BMPs, inspections and enforcement, contractual instruments (public and private sector) and waste management as applicable.

**Table 6-3: Implementation Schedule – Drainage Design Policy**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Review previously proposed program and update as needed	Complete and document activity.	Annual
Year 2-5	Update drainage policy and adopt as needed, review	Complete and document activity.	Annual
Year 2-5	Develop BMP outreach and awareness program	Record announcements and activities	Annual
Year 2-5	Use website for outreach	Record announcements and activities	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

### 6.2.3 BMP Maintenance

The LTSTF developed a model program to establish regular and routine inspections and maintenance procedures for structural post construction BMPs. The program included a Model Ordinance. The LTSTF will continue to develop this BMP, to incorporate the new rules. This BMP will assure post construction BMPs are in good working order, aesthetically pleasing, and repaired as soon as possible.



**Table 6-4: Implementation Schedule – BMP Maintenance**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review previously proposed program and update as needed*	Complete and document activity.	Annual
Year 2-5	Adopt revised program and implement*	Complete and document activity.	Annual
Year 2-5	Develop BMP outreach and awareness program*	Record announcements and activities. Tally delivery events.	Annual
Year 2-5	Provide training*	Record announcements and activities. Tally attendees.	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

**6.2.4 Land Use**

The LTSTF developed an awareness program on land use via the land use workgroup of the ACWP. The MS4s will continue to access stormwater management measures of its existing land use policies and zoning requirements. The revised program will include long-term maintenance of post-construction stormwater control measures that may be included in the Model Ordinance or as a separate instrument. Recording (at the County, etc.) of activities as required by the new permit will be included in this program.

**Table 6-5: Implementation Schedule – Land Use**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Review previously proposed program and update as needed*	Complete and document activity	Annual
Year 2-3	Review and update land use policy	Complete and document activity	Annual
Year 2-5	Review current zoning laws and subdivision policy	Complete and document activity	Annual
Year 2-5	Adopt revised program and implement*	Complete and document activity	Annual
Year 2-5	Develop BMP outreach and awareness program	Record announcements and activities, tally delivery events	Annual
Year 2-5	Provide training*	Record announcements and activities, tally attendees	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

## 7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

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The following section presents the permit requirement for the Pollution Prevention and Good Housekeeping for Municipal Operations Program. The section describes the existing BMPs necessary to implement this program. It describes the measureable goals for each BMP and the timeline (or frequency) for each implementation action.

### 7.1 PERMIT REQUIREMENTS

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit. The BMPs listed in this section were selected to meet the following regulatory requirement:

#### 5. Pollution Prevention and Good Housekeeping for Municipal Operations

##### (a) Program development

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

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

##### (b) Requirements for all Permittees

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

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

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

- a. Composting facilities;
- b. Equipment storage and maintenance facilities;
- c. Fuel storage facilities;
- d. Hazardous waste disposal facilities;
- e. Hazardous waste handling and transfer facilities;
- f. Incinerators;
- g. Landfills;
- h. Materials storage yards;
- i. Pesticide storage facilities;
- j. Buildings, including schools, libraries, police stations, fire stations, and office buildings;
- k. Parking lots;
- l. Golf courses;
- m. Swimming pools;

- n. Public works yards;
- o. Recycling facilities;
- p. Salt storage facilities;
- q. Solid waste handling and transfer facilities;
- r. Street repair and maintenance sites;
- s. Vehicle storage and maintenance yards; and
- t. Structural stormwater controls.

**(2) Training and Education**

All permittees shall inform or train appropriate employees involved in implementing pollution prevention and good housekeeping practices. All permittees shall maintain a training attendance list for inspection by TCEQ when requested.

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

**(4) Contractor Requirements and Oversight**

a. Any contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures described in Parts III B.5.(2)-(6).

b. All permittees shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and SOPs. Oversight procedures must be developed before the end of the permit term and maintained on site and made available for inspection by TCEQ.

**(5) Municipal Operation and Maintenance Activities**

**a. Assessment of permittee-owned operations**

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

- (i) Road and parking lot maintenance may include such areas as pothole repair, pavement marking, sealing, and re-paving;
- (ii) Bridge maintenance may include such areas as re-chipping, grinding, and saw cutting;
- (iii) Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and
- (iv) Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.

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

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

- (i) Replacing materials and chemicals with more environmentally benign materials or methods;
- (ii) Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
- (iii) Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.

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

**(6) Structural Control Maintenance**

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

**7.2 DISCUSSION OF PROGRAMS**

The following table lists BMPs that meet the requirements of MCM 5.

**Table 7-0: Pollution Prevention/Good Housekeeping for Municipal Operations BMPs**

Section	Description of BMP	YEAR SCHEDULE (YEAR)				
		1	2	3	4	5
7.2.0	Assess Pollution Prevention/Good Housekeeping for Municipal	X	X	X	X	X
7.2.1	Stormwater Sewer System O&M		X	X	X	X
7.2.2	Street Sweeping		X	X	X	X
7.2.3	Employee Training	X	X	X	X	X
7.2.4	SOP program and Pollution Prevention Measures*	X	X	X	X	X
7.2.5	Site Visits/Inspections*	X	X	X	X	X
7.2.6	Collection and Disposal of Stormwater Waste	X	X	X	X	X

X – notes activity, see Section for details

\*revised BMP

**7.2.0 Assess Pollution Prevention/Good Housekeeping for Municipal Operations program**

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

**Table 7-1: Implementation Schedule –Assess existing Pollution Prevention/Good Housekeeping for Municipal Operations program.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Assess program	Complete Activity	Annual
Year 2-5	Update program as needed.	Complete Activity	Annual
Year 2-5	Submit NOC as needed	Complete Activity	As needed

**7.2.1 Stormwater Sewer System Operation & Maintenance (O&M)**

The LTSTF developed and implemented a stormwater pollution prevention O&M program to comply with TPDES program requirements. The program incorporated existing routine MS4 O&M activities, hurricane preparedness activities, other activities and additional tasks needed for compliance. The program targets prevention and/or reduction of stormwater pollution from facilities such as landfills, airports, streets, roads, right-of-ways, alleys, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, caliche, soil, and compost storage locations, recycling centers, disposal areas operated by the permittee, and waste transfer stations. The program regulates activities such as park and open space maintenance, fleet and building

maintenance, street maintenance, new construction of municipal facilities, and stormwater system maintenance, as applicable. The program will be modified to include contractor oversight, inspections and recordkeeping.

The MS4s' existing inventories of all potential sources of stormwater pollution will be expanded as required by the new permit. The MS4s' designated departments or staff will contact municipal departments to fill gaps and expand upon information provided by the inventories. Data needed from the inventories may include:

- Source or type of operation
- Location of facility/operation
- Contact information
- Activities conducted on-site
- Proximity to stormwater or surface water
- Potential impact to stormwater or surface water
- Percent of site with impervious surface

The MS4s will use the inventory to prioritize municipal operations based on number of facilities, number of stormwater polluting activities identified, acreage affected, distance to surface water or to conveyance structure and the percent of impervious surface on-site. Municipal operations that will be scrutinized include:

- Vehicle repair or fleet maintenance
- Street and road maintenance, street sweeping (presented as a separate BMP)
- Right of way mowing
- Storm system maintenance and cleaning, including detention facilities, on site detention ponds, and outfalls (presented as a separate BMP)
- Parks maintenance
- Stormwater waste removal and disposal (presented as a separate BMP)
- Golf course maintenance
- Landfill maintenance
- Transfer station and recycling center operations
- Municipal curbside solid waste activities
- Wastewater and water treatment facility operations
- Operation and maintenance of intermediate receiving waterways owned by the permittee
- Operation and maintenance of lift stations

The MS4s will recommend designing a generic Stormwater Pollution Control Plan that may include the elements listed below:

- Employee training plan (presented as a separate BMP)
- Implementation and tracking of BMPs
- Run-off control plans
- Map of facility
- Spill Prevention and Response Plan
- Recordkeeping
- BMP lists, resource sheets, stormwater messages, and other resources
- Tracking of inspections (copies of site visit checklists, follow-up letters, etc.)
- SOPs for pothole repair, pavement marking, sealing, and re-paving;

- Bridge maintenance may include such areas as re-chipping, grinding, and saw cutting;
- Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and
- Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.
- identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene, toluene, ethyl benzene, and xylenes; sediment; and trash).
- develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from the above activities. These pollution prevention measures may include the following examples:
  - Replacing materials and chemicals with more environmentally benign materials or methods;
  - Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
  - Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.

A structural control maintenance program will be assessed and evaluated, and implemented if warranted and feasible. The plan will provide a central location for copies of required BMPs and resource sheets.

**Table 7-2: Implementation Schedule – Stormwater Sewer System O & M**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised O&M program	Complete and document activity	Annual
Year 2-5	Implement revised O&M program	Complete and document activity	Annual
Year 2	Review, amend and develop revised inventory and re-prioritize activities	Complete and document activity	Annual
Year 2-5	Based on review, develop mitigation program pursuant to inventory and prioritization process as needed	Complete and document activity	Annual
Year 2-5	Develop internal BMP outreach and awareness program*	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

### **7.2.2 Street Sweeping**

The MS4s improved their street sweeping programs by improving scheduling, purchasing new equipment, retrofitting existing equipment and moreover, continue to evaluate their respective street sweeping programs. Several MS4s do not have street sweeping programs (i.e. small MS4s, non-traditional MS4s), but these MS4s will continue to assess development of programs. Please see Section 13.2.2 for additional activities related to street sweeping as required for Type III and Type IV MS4s.

**Table 7-3: Implementation Schedule – Street Sweeping**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised street sweeping program	Complete and document activity	Annual
Year 2-5	Implement revised program, if applicable	Complete and document activity	Annual
Year 2-5	Develop internal BMP outreach and awareness program*	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

### 7.2.3 Employee Training Program

The employee training program’s goal is to prevent or reduce pollutant runoff from municipal operations. The program uses videos, webinars, and similar tools to inform public employees of the impacts associated with illegal discharges and improper disposal of waste from municipal operations.

**Table 7-4: Implementation Schedule – Employee Training Program**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised training program	Complete and document activity	Annual
Year 2-5	Implement revised program, if applicable	Complete and document activity	Annual
Year 2-5	Develop internal BMP outreach and awareness program*	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

### 7.2.4 SOP program and pollution prevention measures

The LTSTF developed a general standard operation procedure (SOP) manual for municipal operations. The program developed policy, SOPs, and awareness programs that will continue to be evaluated annually. The program will be expanded to include new pollution prevention measures to comply with the new permit and may include the following examples:

- (i) Replacing materials and chemicals with more environmentally benign materials or methods;
- (ii) Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
- (iii) Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.

This BMP targets stormwater pollution runoff control for municipal activities or operations. To assist in complying with the new permit requirements, focus group meetings will be conducted to get input from municipal employees. After the focus group meetings, existing BMPs will be modified as

necessary, deficiencies will be mitigated, and improvements will be implemented to reflect input received from these groups.

The MS4s will develop internal criteria (i.e. focus groups, checklists, or other tools) to identify priority operations. Information obtained from staff will be used to re-evaluate existing SOPs and BMPs, to develop new SOPs, and/or to revise SOPs. The MS4s outreach and awareness program will be expanded to include fact sheets, pamphlets, videos, webinars and other tools that will be incorporated into this MCM to more effectively manage stormwater runoff from municipal operations.

See Section 13.2.4 for additional BMPs associated with SOPs for Type III and Type IV MS4s.

**Table 7-5: Implementation Schedule –SOP program and Pollution Prevention Measures**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised SOP program	Complete and document activities	Annual
Year 3	Implement revised program, as improved and if applicable	Complete and document activity	Annual
Year 2	Develop internal outreach and awareness program*	Complete and document activity	Annual
Year 3	Implement improved outreach and awareness program*	Record announcements and activities, tally delivery events	Semi-annual
Year 2	Assign staff to focus groups*	Complete and document activities	Annual
Year 2	Implement focus meetings*	Record announcements and activities, tally delivery events.	Semi-annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

### **7.2.5 Site Visits/Inspections**

The MS4s will conduct site visits to include visual inspections of various municipal operations to determine the practicality of the SOPs/BMPs and also to provide staff with a better understanding of operations.

The SOPs/BMPs will be edited based on the site visit experiences. Follow-up letters will be sent to each operation after the each visit, noting the practices that were already in place to protect stormwater and the potential stormwater impacts that need to be corrected to achieve effective management. Recordkeeping will be added to this BMP. See Section 13.2.5 and Section 13.2.6 for additional BMPs required by Type III and Type IV MS4s.



**Table 7-6: Implementation Schedule – Site Visits/Inspections**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised site visit program	Complete and document activity	Annual
Year 2-5	Implement revised program, if applicable, conduct inspections	Record announcements and activities, tally delivery events.	Semi-annual
Year 2-5	Develop and implement recordkeeping process*	Record activities	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

**7.2.6 Collection and Disposal of Stormwater Waste**

Dredge spoil, sediment, and floatables collected through the implementation of stormwater sewer system maintenance BMPs will be disposed of properly. Materials collected will be tracked and evaluated.

**Table 7-7: Implementation Schedule – Collection and Disposal of Stormwater Waste**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Review, amend and develop revised disposal program, assure program identifies sources	Complete and document activity	Annual
Year 2-5	Implement revised program, if applicable	Complete and document activity	Annual
Year 2-5	Develop and implement recordkeeping process*	Record activities	Annual
Year 2	Develop and implement an outreach and awareness program*	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess*	Develop pertinent information	Annual

\* new activity

## **8.0 IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOADING (TMDL) REQUIREMENTS:**

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The following section presents the permit requirement for the Impaired Water Bodies and Total Maximum Daily Load (TMDL) requirements. The section describes the BMPs necessary to implement this program. It describes the measureable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief description of the BMPs selected, a proposed implementation schedule for each BMP, and performance measures for the programs.

**8.1 Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements:** The BMPs listed in this section were selected to meet the requirements of the new TPDES MS4 permit Part II Section D (4):

### **4. Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements**

Discharges of the pollutant(s) of concern to impaired water bodies for which there is a TCEQ and EPA approved total maximum daily load (TMDL) are not eligible for this general permit unless they are consistent with the approved TMDL. A water body is impaired for purposes of the permit if it has been identified, pursuant to the latest TCEQ and EPA approved CWA §303(d) list, as not meeting Texas Surface Water Quality Standards. The permittee shall control the discharges of pollutant(s) of concern to impaired waters and waters with approved TMDLs as provided in sections (a) and (b) below, and shall assess the progress in controlling those pollutants.

#### **(a) Discharges to Water Quality Impaired Water Bodies with an Approved TMDL**

If the small MS4 discharges to an impaired water body with an approved TMDL, where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section.

The SWMP and required annual reports must include information on implementing any targeted controls required to reduce the pollutant(s) of concern as described below:

##### **(1) Targeted Controls**

The SWMP must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional Best Management Practices (BMPs) to reduce the pollutant(s) of concern in the impaired waters.

##### **(2) Measurable Goals**

For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term.

##### **(3) Identification of Benchmarks**

The SWMP must identify a benchmark for the pollutant(s) of concern. Benchmarks are designed to assist in determining if the BMPs established are effective in addressing the pollutant(s) of concern in stormwater discharge(s) from the MS4 to the maximum extent practicable (MEP). The BMPs addressing the pollutant of concern must be re-evaluated on an annual basis for progress towards the benchmarks and modified as necessary within an adaptive management

framework. These benchmarks are not numeric effluent limitations or permit conditions but intended to be guidelines for evaluating progress towards reducing pollutant discharges consistent with the benchmarks. The exceedance of a benchmark is not a permit violation and does not in itself indicate a violation of instream water quality standards.

The benchmark must be determined based on one of the following options:

a. If the MS4 is subject to a TMDL that identifies a Waste Load Allocation(s) (WLA) for permitted MS4 stormwater sources, then the SWMP may identify it as the benchmark. Where an aggregate allocation is used as a benchmark, all affected MS4 operators are jointly responsible for progress in meeting the benchmark and shall (jointly or individually) develop a monitoring/assessment plan as required in Part II.D.4(a)(6).

b. Alternatively, if multiple small MS4s are discharging into the same impaired water body with an approved TMDL, with an aggregate WLA for all permitted stormwater MS4s, then the MS4s may combine or share efforts to determine an alternative sub-benchmark for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP must clearly define this alternative approach and must describe how the sub-benchmark would cumulatively support the aggregate WLA. Where an aggregate benchmark has been broken into sub-benchmarks for individual MS4s, each permittee is only responsible for progress in meeting its sub-benchmark.

#### **(4) Annual Report**

The annual report must include an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark.

#### **(5) Impairment for Bacteria**

If the pollutant of concern is bacteria, the permittee shall include focused BMPs addressing the below areas, as applicable, in the SWMP and implement as appropriate. If a TMDL Implementation Plan (I-Plan) is available, the permittee may refer to the I-Plan for appropriate BMPs. The SWMP and annual report must include the selected BMPs. Permittees may not exclude BMPs associated with the minimum control measures required under 40 CFR §122.34 from their list of proposed BMPs. Proposed BMPs will be reviewed by the executive director during the NOI and SWMP review and approval process.

The BMPs shall, as appropriate, address the following:

##### **a. Sanitary Sewer Systems**

**(i) Make improvements to sanitary sewers to reduce overflows;**

**(ii) Address lift station inadequacies;**

**(iii) Improve reporting of overflows; and**

**(iv) Strengthen sanitary sewer use requirements to reduce blockage from fats, oils, and grease.**

##### **b. On-site Sewage Facilities (for entities with appropriate jurisdiction)**

**(i) Identify and address failing systems; and**

**(ii) Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).**

##### **c. Illicit Discharges and Dumping**

**Place additional effort to reduce waste sources of bacteria; for example, from septic systems, grease traps, and grit traps.**

##### **d. Animal Sources**

Expand existing management programs to identify and target animal sources such as zoos, pet waste, and horse stables.

e. Residential Education

Increase focus to educate residents on:

- (i) Bacteria discharging from a residential site either during runoff events or directly;
- (ii) Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;
- (iii) Decorative ponds; and
- (iv) Pet waste.

(6) **Monitoring or Assessment of Progress**

The permittee shall monitor or assess progress in achieving benchmarks 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.

a. The permittee may use either of the following methods to evaluate progress towards the benchmark and improvements in water quality as follows:

(i) **Evaluating Program Implementation Measures**

The permittee may evaluate and report progress towards the benchmark by describing the activities and BMPs implemented, by identifying the appropriateness of the identified BMPs, and by evaluating the success of implementing the measurable goals.

The permittee may assess progress by using program implementation indicators such as: (1) number of sources identified or eliminated; (2) decrease in number of illegal dumping; (3) increase in illegal dumping reporting; (4) number of educational opportunities conducted; (5) reductions in sanitary sewer flows (SSOs); or, (6) increase in illegal discharge detection through dry screening, etc.; or

(ii) **Assessing Improvements in Water Quality**

The permittee may assess improvements in water quality by using available data for segment and assessment units of water bodies from other reliable sources, or by proposing and justifying a different approach such as collecting additional instream or outfall monitoring data, etc. Data may be acquired from TCEQ, local river authorities, partnerships, and/or other local efforts as appropriate.

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

(7) **Observing no Progress Towards the Benchmark**

If, by the end of the third year from the effective date of the permit, the permittee observes no progress toward the benchmark either from program implementation or water quality assessments as described in Part II.D.4(a)(6), the permittee shall identify alternative focused BMPs that address new or increased efforts towards the benchmark or, as appropriate, shall develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs for those (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent annual reports.

Where the permittee originally used a benchmark based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same watershed to determine an alternative sub-benchmark for the pollutant(s) of concern for their respective MS4s, as described in Part II.D.4(a)(3)(b) above.

Permittees must document, in their SWMP for the next permit term, the proposed schedule for the development and subsequent adoption of alternative sub benchmark for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual benchmarks.

**(b) Discharges Directly to Water Quality Impaired Water Bodies without an Approved TMDL**

**The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies where a TMDL has not yet been approved by TCEQ and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities:**

**(1) Discharging a Pollutant of Concern**

**a. Within the first year following the permit effective date, the permittee shall determine whether the small MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern.**

**b. If the permittee determines that the small MS4 may discharge the pollutant(s) of concern to an impaired water body without an approved TMDL, the permittee shall, no later than two years following the permit effective date, ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body.**

**c. In addition, no later than three years following the permit effective date, the permittee shall submit an NOC to amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.**

**(2) Impairment of Bacteria**

**Where the impairment is for bacteria, the permittee shall identify potential significant sources and develop and implement focused BMPs for those sources. The permittee may implement the BMPs listed in Part II.D.4(a)(5) or proposed alternative BMPs as appropriate.**

**(3) The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.**

**8.2 DISCUSSION OF PROGRAMS**

The following table lists BMPs that meet the requirements of the new MS4 TPDES requirements related to Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements. The LTSTF membership will prepare an Impaired Water Body BMP program to meet the requirements of the new MS4 TPDES requirements pursuant to Part II Section D and (b) (i.e. Discharges Directly to Water Quality Impaired Water Bodies without an Approved TMDL) and Part II Section D 4 (a) (5) (i.e. Impairment for Bacteria).

**Table 8-1: Impaired Water Bodies and Total Maximum Daily Load (TMDL) BMPs**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
8.2.1	Source determination	X	X	X	X	X
8.2.2	Bacteria Impairment Program		X	X	X	X
8.2.3	Workgroup	X	X	X	X	X
8.2.4	Reporting	X	X	X	X	X

X – notes activity, see Section for details

### 8.2.1 Source determination

There are three (3) significant watersheds located in the LRGV, namely the Arroyo Colorado, the Lower Laguna Madre and the Lower Rio Grande River watersheds. Solely, the Lower Rio Grande River is listed as unimpaired (Table 2-2 through Table 2-5). As depicted in Table 2-5, all the MS4s discharge directly into an impaired body of water.

Within the first year following the permit effective date, the MS4s shall determine whether the MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list (pollutants of concern are depicted in Tables 2-1 through Tables 2-3), and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern. The LTSTF will develop a workgroup to assist in developing a source determination strategy that may include review of pertinent historical literature, assessing existing EPA (RCRA, CERCLA, etc.), TCEQ (MSW, LPST, etc.) and other similar permit/registration databases, review local health department records, find and obtain past and active local and/or regional study findings, and identify other pertinent documentation.

If the MS4 determines that the MS4 may discharge the pollutant(s) of concern to an impaired water body without an approved TMDL, the permittee shall, no later than two years following the permit effective date, ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body.

In addition, no later than three years following the permit effective date, the permittee shall submit an NOC to amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.

**Table 8-2: Implementation Schedule – Source Determination**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Develop a source determination strategy, amend as needed	Complete and document activity	Annual
Year 2-5	Implement program, if applicable, amend as needed.	Complete and document activity	Annual
Year 3	Submit NOC, if applicable	Record activities	Annual
Year 3-5	Assess	Develop pertinent information	Annual

### 8.2.2 Bacteria Impairment Program

Since one of the pollutants of concern is identified as bacteria (Table 2-1 to Table 2-3), the permittees shall include focused BMPs addressing the below areas, as applicable, in the SWMP and implement as appropriate.

The BMPs shall, as appropriate, address the following: Sanitary Sewer Systems, On-site Sewage Facilities (OSSFs), Illicit Discharges and Dumping, Animal Sources, and Residential Education.

**Table 8-3: Implementation Schedule – Bacteria Impairment Program**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-3	Develop a plan to target sanitary sewer systems. Assess: lift stations, reporting of SSOs, wet waste, and use of fats, oils and grease.	Complete and document activity	Annual
Year 2-3	Develop a plan to target OSSFs. Assess illegal uses, failing systems, jurisdiction issues, O&M requirements, and other issues.	Complete and document activity	Annual
Year 2-3	Develop a plan to identify, mitigate, enforce with policy or local law, and prevent Illicit Discharges and Dumping.	Complete and document activity	Annual
Year 2-3	Develop a plan to manage Animal Sources. Assess: pet ordinances, zoos, animal shelters, horse stables, CAFOs, dog parks, municipal parks, sports complexes, and other animal sources.	Complete and document activity	Annual
Year 3-5	Implement Plans.	Complete and document activity	Annual
Year 2	Develop outreach program. Target residential sources.	Complete and document activity	Annual
Year 2-5	Implement Residential Education awareness program.	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Report development and implementation during annual reporting process.	Develop pertinent information	Annual

**8.2.3 Workgroup**

Since one of the pollutants of concern is identified as bacteria (Table 2-1 to Table 2-3) , the permittees shall include focused BMPs addressing the below areas, as applicable, in the SWMP and implement as appropriate. The BMPs shall, as appropriate, address the following: Sanitary Sewer Systems, On-site Sewage Facilities, Illicit Discharges and Dumping, Animal Sources, and Residential Education.

**Table 8-4: Implementation Schedule – Bacteria Impairment Program**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Develop a source determination strategy, amend as needed	Complete and document activity	Annual
Year 2	Implement program, if applicable, amend as needed	Complete and document activity	Annual
Year 3	Submit NOC, if applicable	Record activities	Annual
Year 4-5	Develop and implement an outreach and awareness program, if applicable	Record announcements and activities, tally delivery events	Annual

Year 3-5	Assess	Develop pertinent information	Annual
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**8.2.4 Reporting**

The annual report will include information pertaining to this section.

**Table 8-5: Implementation Schedule – Reporting**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-5	Annual Report	Complete and document activity	Annual



## 9.0 LEGAL AUTHORITY

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The following section presents the permit requirement for the Legal Authority Program. The section describes the existing BMPs necessary to implement this program. It describes the measurable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief discussion of current programs, a description of the BMPs selected, a proposed implementation schedule for each BMP, and performance measures for the programs.

### 9.1 Legal Authority Text

The BMPs listed in this section were selected to meet the following regulatory requirement (Legal Authority):

#### **3. Legal Authority**

##### **(a) Traditional small MS4s, such as cities**

**(1) Within two years from the permit effective date, the permittee shall review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or shall adopt a new ordinance(s) or other regulatory mechanism(s) that provide the permittee with adequate legal authority to control pollutant discharges into and from its small MS4 in order to meet the requirements of this general permit.**

**(2) To be considered adequate, this legal authority must, at a minimum, 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 small MS4;**
- c. Authority to require compliance with conditions in the permittee’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 small MS4;**
- g. Authority to respond to non-compliance with BMPs required by the small MS4 consistent with their ordinances or other regulatory mechanism(s);**
- 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.**

**(b) Non-traditional small MS4s, such as counties, drainage districts, transportation entities, municipal utility districts, military bases, prisons and universities**

(1) Where the permittee lacks the authority to develop ordinances or to implement enforcement actions, the permittee shall exert enforcement authority as required by this general permit for its facilities, employees, contractors, and any other entity over which it has operational control within the portion of the UA under the jurisdiction of the permittee. For discharges from third party actions, the permittee shall perform inspections and exert enforcement authority to the MEP.

(2) If the permittee does not have inspection or enforcement authority and is unable to meet the goals of this general permit through its own powers, then, unless otherwise stated in this general permit, the permittee shall perform the following actions in order to meet the goals of the permit:

a. Enter into interlocal agreements with municipalities where the small MS4 is located. These interlocal agreements must state the extent to which the municipality will be responsible for inspections and enforcement authority in order to meet the conditions of this general permit; or,

b. If it is not feasible for the permittee to enter into interlocal agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or TCEQs Field Operations Support Division as needed to report discharges or incidents that it cannot itself enforce against. In determining feasibility for entering into interlocal agreements, the permittee shall consider all factors, including, without limitations, financial considerations and the willingness of the municipalities in which the small MS4 is located.

## 9.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of Legal Authority.

**Table 9-1: Legal Authority BMPs**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
9.2.1	Ordinances, Orders and Policy	X	X	X	X	X
9.2.2	Interlocal agreements, other instruments required to assist non-traditional MS4s	X	X	X	X	X

*X – notes activity, see Section for details*

### 9.2.1 Ordinances, Orders and Policy.

Traditional small MS4s, within two years from the permit shall review, revise and/or adopt ordinances, orders, and/or policies to assure legal authority to implement the SWMP.

**Table 9-2: Implementation Schedule – Ordinances, Orders and Policy.**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Review/revise existing model ordinances, orders, and policies	Complete and document activity	Semi-annual
Year 2-5	Adopt revised model ordinances, orders, and policies	Complete and document activity	As needed

**9.2.2 Interlocal agreements, other instruments required to assist non-traditional MS4s**

Traditional small MS4s, within two years from the permit shall review, revise and/or adopt ordinances, orders, and/or policies to assure legal authority to implement the SWMP.

**Table 9-3: Implementation Schedule** – Interlocal agreements, other instruments required to assist non-traditional MS4s.

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Develop interlocal agreements or other instruments to assist non-traditional MS4s to implement and enforce the SWMP.	Meet, complete and document activity.	Annual
Year 2-5	Adopt interlocal agreements or other instruments to assist non-traditional MS4s to implement and enforce the SWMP.	Complete and document activity.	By year 5

## **10.0 ILLICIT DISCHARGE DETECTION ELIMINATION (FOR TYPE II, III AND IV MS4s)**

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The following section presents the additional permit requirements for the Illicit Discharge Detection and Elimination Program. The section describes the additional BMPs necessary to implement this program. It describes the measurable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief discussion and a description of the BMPs selected for the MCM, a proposed implementation schedule for each BMP, and performance measures for the program.

### **10.1 IDDE PERMIT REQUIREMENTS (MCM #2 FOR TYPE II, III AND IV MS4s)**

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit. The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #2 for Type II, III and IV MS4s):

#### **2. Illicit Discharge Detection and Elimination (IDDE)**

##### **(a) Program Development**

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

- e. For Level 2, 3 and 4 small MS4s, if applicable, procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4;
- f. For Level 4 small MS4s, procedures for identifying priority areas within the small MS4 likely to have illicit discharges, and a list of all such areas identified in the small MS4 (See Part III.B.2.(g)(1));
- g. For Level 4 small MS4s, field screening to detect illicit discharges (See Part III.B.2.(g)(2)).

(2) For non-traditional small MS4s, if illicit connections or illicit discharges are observed related to another operator's MS4, the permittee shall notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittee shall notify the appropriate TCEQ regional office of the possible illicit connection.

##### **(d) Additional Requirements for Level 3 and 4 small MS4s**

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

##### **(1) Source Investigation and Elimination**

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

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

**(e) Additional Requirements for Level 4 small MS4s**

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

**(1) Identification of Priority Areas**

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

**(2) Dry Weather Field Screening**

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

If dry weather field screening is necessary, at a minimum, the permittee shall:

a. Conduct dry weather field screening in priority areas as identified by the permittee in Part III.B.2(e)(1). By the end of the permit term, all of those priority areas, although not necessarily all individual outfalls must be screened.

b. Field observation requirements – The permittee shall develop written procedures for observing flows from outfalls when there has been at least 72 hours of dry weather. The written procedures should include the basis used to determine which outfalls would be observed. The permittee shall record visual observations such as odor, color, clarity, floatables, deposits or stains.

c. Field screening requirements – The permittee shall develop written procedures to determine which dry weather flows will be screened, based on results of field observations or complaint from the public or the permittee’s trained field staff. At a minimum, when visual observations indicate a potential problem such as discolored flows, foam, surface sheen, and other similar indicators of contamination, the permittee shall conduct a field screening analysis for selected indicator pollutants as determined by the permittee. Screening methodology may be modified based on experience gained during the actual field screening activities. The permittee shall document the method used.

## 10.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of MCM 2 that apply to Type II, III and IV MS4s.

**Table 10-1: Illicit Discharge Detection and Elimination (IDDE) BMPs for Type II, III and IV MS4s**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
10.2.1	OSSF leak detection, prevention and mitigation <sup>2,3,4</sup>		X	X	X	X
10.2.2	Identify priority areas <sup>4</sup>		X	X	X	X
10.2.3	Field Screening <sup>4</sup>		X	X	X	X
10.2.4	Notification of Illicit Discharge <sup>N</sup>		X	X	X	X
10.2.5	Source Investigation and Elimination <sup>3,4</sup>		X	X	X	X

X – notes activity, see Section for details

<sup>2</sup> – Type II MS4

<sup>3</sup> – Type III MS4

<sup>4</sup> – Type IV MS4

<sup>N</sup> – Non Traditional Type of MS4

### **10.2.1 OSSF leak detection, prevention and mitigation (Type II, III, and IV MS4)**

As part of the MS4s’ IDDE Programs, this BMP will develop and implement a mitigation plan with procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4. This will include targeting residential, commercial and municipal systems. The program will work with the local Designated Representatives (DRs) to review permitting, inspection and O&M programs. The MS4s will also review legal authority instruments, attempt to identify illegal systems, and prohibit OSSFS where applicable. Outreach will be included.

**Table 10-2: Implementation Schedule – OSSF leak detection, prevention and mitigation (Type II, III, and IV MS4)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Develop OSSF IDDE program	Complete activity	Annual
Year 3-5	Implement program	Complete activity	Annual
Year 2-5	Outreach	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess the BMP	Tally and evaluate events, obtain feedback	Annual

### **10.2.2 Identify priority areas (Type IV MS4 only)**

The MS4 will develop a program to identify high priority areas with a high potential to generate stormwater pollutants. These areas may include maintenance yards, hazardous waste facilities, industrial zones, colonias, parks, municipal facilities, fuel storage locations, and other facilities where chemicals or other materials have a high potential to be discharged in stormwater. Among the factors that must be considered when giving an area a high priority ranking are: the amount of urban pollutants stored at the site, type of activity conducted, SIC classification, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s).

**Table 10-3: Implementation Schedule – Identify priority areas (Type IV MS4)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Develop Priority Area identification program	Complete activity	Annual
Year 3-5	Implement program	Complete activity	Annual
Year 2-5	Develop, deliver outreach	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess the BMP	Tally and evaluate events, obtain feedback	Annual

**10.2.3 Field Screening (Type IV MS4)**

The MS4 will develop and implement a written dry weather field screening program to assist in detecting and eliminating illicit discharges to the small MS4. The dry weather field screening will consist of (1) field observations; and (2) as needed, field screening. Dry weather field screening will include targeting priority areas, field observations, and written procedures.

**Table 10-4: Implementation Schedule – Field Screening (Type IV MS4 only)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-3	Develop a written dry weather field screening program. Including field observation procedures, type of data collected and guidance for staff for mobilization	Complete activity	By year 3
Year 2-3	Quantify the priority areas and develop a schedule for field screening these areas	Complete activity	Annual
Year 2-5	Training	Record announcements and activities, tally delivery events	Annual
Year 2-5	Recordkeeping	Archive site visits, complete activity	Semi-annual
Year 3-5	Implement Program. 1/3 of targeted areas will be assessed each year, cumulatively (1/3 in year 3, 2/3 in year 4 and 100% annually thereafter)	Compare actual visits to projections	Annual
Year 3-5	City will develop a strategy for providing outreach to key stakeholders in priority areas that may impact the MS4s	Keep record of meetings and identify types of stakeholders	Annual
Year 2-5	Reporting	Develop an internal annual report that includes pertinent information	Annual
Year 2-5	Assess BMP	Tally and evaluate events, obtain feedback	Annual

**10.2.4 Notification of Illicit Discharge (non-traditional small MS4s)**

If illicit connections or illicit discharges are observed related to another operator’s MS4, the permittee shall notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittee shall notify the appropriate TCEQ regional office of the possible illicit connection. The notification program will include providing key information to staff (phone numbers, hotlines, etc.), readily available communication procedures, and reporting procedures. Some IDDE training will be provided.

**Table 10-5: Implementation Schedule – Notification of Illicit Discharge (non-traditional small MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2	Develop a notification program	Record activities conducted	By Year 2
Year 3-5	Implement program	Record activities conducted	Annual
Year 2-5	Training	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess BMP*	Tally and evaluate events, obtain feedback	Annual

**10.2.5 Source Investigation and Elimination (Type III and IV MS4s)**

Upon being notified that a reported discharge has been eliminated, the MS4 will conduct a follow-up investigation or field screening, consistent with Part III.B.2.(e)(2), to verify that the discharge has been eliminated. The Source Investigation and Elimination Program shall include procedures for a site visit, follow-up investigation, enforcement, recordkeeping, and policy to seek recovery, compensation and remediation costs from responsible parties, if applicable.

**Table 10-6: Implementation Schedule – Source Investigation and Elimination (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-3	Develop Source Investigation and Elimination program	Meet, complete activity	Annual
Year 3-5	Implement Program	Complete activity	Annual
Year 2-5	Assess the BMP	Tally and evaluate events, obtain feedback	Annual



## 11.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL (FOR TYPE III AND IV MS4s)

The following section presents the additional permit requirements for the Illicit Discharge Detection and Elimination Program. The section describes the additional BMPs necessary to implement this program. It describes the measurable goals for each BMP and a timeline (or frequency) for each implementation action. Each of these sections includes a brief discussion and a description of the BMPs selected for the MCM, a proposed implementation schedule for each BMP, and performance measures for the program.

### 11.1 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PERMIT REQUIREMENTS (FOR TYPE III AND IV MS4s)

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit. The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #3 for Type III and IV MS4s):

#### 3. Construction Site Stormwater Runoff Control

##### (c) Additional Requirements for Level 3 and 4 small MS4s

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

##### (1) Construction Site Inventory

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

## 11.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of MCM 3.

Table 11-1: Construction Site Storm Water Controls BMPs (Type III and IV MS4s)

Section	Description of BMP	YEAR SCHEDULE (YEAR)				
		1	2	3	4	5
11.2.1	Construction Site Inventory <sup>3,4</sup>		X	X	X	X

*X – notes activity, see Section for details*

<sup>3</sup>– Type III MS4

<sup>4</sup>– Type IV MS4

### 11.2.1 Construction Site Inventory (Type III and IV MS4s)

The MS4s will develop an internal recordkeeping program to maintain an inventory of all permitted active public and private construction sites, that result in a total land disturbance of one or more acres or that result in a total land disturbance of less than one acre if part of a larger common plan or

development or sale. Notification to the small MS4 should be made by submittal of a copy of an NOI or a small construction site notice. The MS4s will utilize their legal authority to incorporate this requirement into the MCM #3 and the SWMP in general.

**Table 11-2: Implementation Schedule – Construction Site Inventory (Type III and IV MS4s)**

<b>Permit Period</b>	<b>Activity</b>	<b>Measurable Goals</b>	<b>Completed By (Month and Year or Frequency of Action)</b>
Year 2-3	Evaluate existing construction permitting process	Archive meetings and activities, complete activity	Annual
Year 2-3	Develop a recordkeeping program and a database	Archive meetings and activities, complete activity	Annual
Year 3-5	Report information in annual report	Report activity	Annual
Year 2-5	Assess	Develop pertinent information	Annual

## 12.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT CONTROL (FOR TYPE IV MS4s)

The BMPs listed in this section were selected to meet the following regulatory requirement

The following section presents the additional permit requirement for the Post-Construction Storm Water Management in New Development and Redevelopment Program (Minimum Control Measure #4 for IV MS4s): The section describes the BMPs necessary to implement this program. It describes the measurable goals for each BMP and the timeline (or frequency) for each implementation action.

### 12.1 PERMIT REQUIREMENTS

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No.

TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit.

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #4):

#### 4. Post-Construction Stormwater Management in New Development and Redevelopment

##### (c) Additional Requirements for Level 4 small MS4s

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

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

a. Inspection Reports - The permittee shall document its inspection findings in an inspection report and make them available for review by the TCEQ.

### 12.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the requirements of MCM 5.

**Table 12-1: Post-Construction Stormwater Management in New Development and Redevelopment BMPs (Type IV MS4s)**

Section	Description of BMP	IMPLEMENTATION SCHEDULE (YEAR)				
		1	2	3	4	5
12.2.1	Inspection program <sup>4</sup>	X	X	X	X	X

X – notes activity, see Section for details

<sup>4</sup> – Type IV MS4

**12.2.1 Inspection Program (Type IV MS4s)**

The MS4 will develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance plan. The MS4 will develop an inspection reporting process.

**Table 12-2: Implementation Schedule – Inspection Program (Type IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Develop an inspection program to include awareness program	Archive meetings, new program requirements and complete activity	Annual
Year 3-5	Implement inspection program	Complete activity	Annual
Year 3-4	Outreach program. Implement awareness program	Record announcements and activities	Annual
Year 3-5	Training	Record training events	Annual
Year 2-5	Assess	Develop pertinent information	Annual

### **13.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS (MCM #5 FOR TYPE III AND TYPE IV MS4s)**

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The following section presents the additional permit requirement for the Pollution Prevention and Good Housekeeping for Municipal Operations Program (Minimum Control Measure #5 for Type III and Type IV MS4s). The section describes the existing BMPs necessary to implement this program. It describes the measurable goals for each BMP and the timeline (or frequency) for each implementation action.

#### **13.1 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS PERMIT REQUIREMENTS (MCM #5 FOR TYPE III AND TYPE IV MS4s)**

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit.

The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #5 for Type III and IV MS4s):

#### **5. Pollution Prevention and Good Housekeeping for Municipal Operations**

##### **(c) Additional Requirements for Level 3 and 4 small MS4s:**

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

##### **(1) Storm Sewer System Operation and Maintenance**

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

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

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

- a. Implementation schedules – If a sweeping program is implemented, the permittee shall sweep the areas in the program (for example, the streets, roads, and public**

parking lots) in accordance with a frequency and schedule determined in the permittee's O&M program.

b. For areas where street sweeping is technically infeasible (for example, streets without curbs), the permittee shall focus implementation of other trash and litter control procedures, or provide inlet protection measures to minimize pollutant discharges to storm drains and creeks.

c. Sweeper Waste Material Disposal – If utilizing street sweepers, the permittee shall develop a procedure to dewater and dispose of street sweeper waste material and shall ensure that water and material will not reenter the small MS4.

### **(3) Mapping of Facilities**

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

### **(4) Facility Assessment**

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

a. **Assessment of Facilities' Pollutant Discharge Potential** - The permittee shall review the facilities identified in Part III.B.5.(b) once per permit term for their potential to discharge pollutants into stormwater.

b. **Identification of high priority facilities** - Based on the Part III.B.5.(c)(4)a. assessment, the permittee shall identify as high priority those facilities that have a high potential to generate stormwater pollutants and shall document this in a list of these facilities. Among the factors that must be considered in giving a facility a high priority ranking are the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s). High priority facilities must include, at a minimum, the permittee's maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in stormwater.

c. **Documentation of Assessment Results** - The permittee shall document the results of the assessments and maintain copies of all site evaluation checklists used to conduct the assessments. The documentation must include the results of the permittee's initial assessment, and any identified deficiencies and corrective actions taken.

### **(5) Development of Facility Specific SOPs**

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

a. For each high priority facility identified in Part III.B.5.(c)(4)b., the permittee shall develop a SOP that identifies BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in stormwater from each facility.

b. A hard or electronic copy of the facility-specific stormwater management SOP (or equivalent existing plan or document) must be maintained and be available for review

by the TCEQ. The SOP must be kept on site when possible and must be updated as necessary.

**(6) Stormwater Controls for High Priority Facilities**

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

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

**(7) Inspections**

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

**(d) Additional Requirements for Level 4 small MS4s:**

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

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

- a. Landscape maintenance - The permittee shall evaluate the materials used and activities performed on public spaces owned and operated by the permittee such as parks, schools, golf courses, easements, public rights of way, and other open spaces for pollution prevention opportunities. Maintenance activities for the turf landscaped portions of these areas may include mowing, fertilization, pesticide application, and irrigation. Typical pollutants include sediment, nutrients, hydrocarbons, pesticides, herbicides, and organic debris.
- b. The permittee shall implement the following practices to minimize landscaping-related pollutant generation with regard to public spaces owned and operated by the permittee:

- (i) Educational activities, permits, certifications, and other measures for the permittee’s applicators and distributors.
- (ii) Pest management measures that encourage non-chemical solutions where feasible. Examples may include:
  - (a) Use of native plants or xeriscaping;
  - (b) Keeping clippings and leaves out the small MS4 and the street by encouraging mulching, composting, or landfilling;
  - (c) Limiting application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions;
  - (d) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing motorist safety.
- c. The permittee shall develop schedules for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and expected precipitation.
- d. The permittee shall ensure collection and proper disposal of the permittee’s unused pesticides, herbicides, and fertilizers.

**13.2 DISCUSSION OF PROGRAMS**

The following table lists BMPs that meet the requirements of MCM 5.

**Table 13-1: Pollution Prevention/Good Housekeeping for municipal operations BMPs**

Section	Description of BMP	YEAR SCHEDULE (YEAR)				
		1	2	3	4	5
13.2.1	Storm Sewer System O&M <sup>3,4</sup>		X	X	X	X
13.2.2	Roadway O&M <sup>3,4</sup>		X	X	X	X
13.2.3	Mapping of Facilities <sup>3,4</sup>		X	X	X	X
13.2.4	Facility specific SOPs <sup>3,4</sup>		X	X	X	X
13.2.5	Stormwater Controls for High Priority Areas <sup>3,4</sup>		X	X	X	X
13.2.6	Inspections <sup>3,4</sup>		X	X	X	X
13.2.7	Pesticide, Herbicide, Fertilizer Application & Management Program <sup>4</sup>		X	X	X	X

X – notes activity, see Section for details

<sup>3</sup> – Type III MS4

<sup>4</sup> – Type IV MS4

**13.2.1 Storm Sewer System O&M (Type III and IV MS4s)**

The MS4s will develop and implement an O&M program to reduce to the maximum extent practicable the collection of pollutants in catch basins and other surface drainage structures. The program will include identifying potential problem areas and developing an inspection program. Problem areas will be prioritized, and additional inspections will be contemplated.



**Table 13-2: Implementation Schedule – Storm Sewer System O&M (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-3	Evaluate existing stormwater O&M program, primarily targeting catch basins and other surface drainage structures	Archive meetings, activities, complete activity	Annual
Year 2-3	Develop inspection, O&M program	Archive activities, complete activity	Annual
Year 2-5	Implement O&M program. Inspect 1/3 of priority areas Year 3, 2/3 Year 4 and 100% year 5 (cumulative)	Archive activities, complete activity	Annual
Year 2-5	Develop a recordkeeping program, particularly archive priority areas identified, record mitigation activities	Archive activities, complete activity	Annual
Year 3-5	Report information in annual report	Report activity	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

**13.2.2 Roadway O&M (Type III and IV MS4s)**

The MS4s will develop and implement an O&M program that includes, if feasible and practicable, a street sweeping and cleaning program, or an equivalent BMP such as an inlet protection program, which must include an implementation schedule and a waste disposal procedure. The MS4 will evaluate resources, staff, and budget requirements for development and implementation of this BMP by Year 2. If a street sweeping and cleaning program is implemented pursuant to this MCM, the MS4 will evaluate streets, road segments, and public parking lots including, but not limited to, high traffic zones, commercial and industrial districts, sport and event venues, and plazas, as well as areas that consistently accumulate high volumes of trash, debris, and other stormwater pollutants. Similar assessment will be developed if an equivalent BMP is selected. The program will include an implementation schedule (frequency, other strategy), alternative strategies in areas that require unreasonable efforts (technically infeasible, cost), and waste disposal (dewater, characterization, disposal site, etc.). The program will be implemented to the MEP.

**Table 13-3: Implementation Schedule – Roadway O&M (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-4	Develop Roadway O&M Plan. Evaluate resources, staff and budget, identify BMPs to be implemented and incorporate into the SWMP	Archive activities, complete Activity	Annual
Year 3-5	Implement Roadway O&M Plan, implement program in 1/3 of target areas by Year 3, 2/3 by Year 4 and 100% of areas by Year 5 (cumulative)	Archive activities, complete activity	Annual
Year 3-5	Submit NOC, NOC to include additional BMP	Complete activity	Annual
Year 2-5	Develop a recordkeeping program, particularly archive priority areas identified, record mitigation activities and disposal information	Archive activities, complete activity	Annual
Year 3-5	Implement disposal program	Archive activities, complete activity	Annual

Year 3-5	Report information in annual report	Report activity	Annual
Year 2-5	Assess BMP	Develop information	Annual

**13.2.3 Mapping of Facilities (Type III and IV MS4s)**

MS4s will enhance their existing stormwater system map to include identification and location of permittee-owned and operated facilities and stormwater controls regulated under this general permit.

**Table 13-4: Implementation Schedule – Mapping of Facilities (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 2-5	Amend stormwater map	Archive meetings and activities, complete activity	Annual
Year 2-5	Evaluate BMP	Develop pertinent information	Annual

**13.2.4 Facility specific SOPs (Type III and IV MS4s)**

The MS4s will develop facility specific stormwater management SOPs. The SOPs will be developed in a manual format specific to each facility. Each high priority facility identified by the MS4 will be incorporated into the SOP program. The SOP document will be located on site in hard copy and electronic format. The staff awareness program will be enhanced to include this BMP.

**Table 13-5: Implementation Schedule – Facility specific SOPs (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 3-4	After high priority facilities are identified, develop advanced SOP program	Archive meetings and activities, complete activity	Annual
Year 3-5	Implement program	Complete activity	Annual
Year 3-5	Outreach and awareness	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

**13.2.5 Stormwater Controls for High Priority Areas (Type III and IV MS4s)**

The MS4 will develop and implement facility specific stormwater controls at all high priority facilities identified in Part III.B.5.(c)(4)b. A description of BMPs developed to comply with this requirement must be included in each facility specific SOP. SOPs will include general good housekeeping, de-icing and anti-icing material, fueling operations and vehicle maintenance, equipment and vehicle.

**Table 13-6: Implementation Schedule – Stormwater Controls for High Priority Areas (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 3-4	After high priority facilities are identified, develop advanced O&M program	Archive meetings and activities, complete activity	Annual
Year 3-5	Identify additional BMPs as applicable, amend SWMP and provide NOC	Archive meetings and activities, complete activity	As needed
Year 3-5	Implement program	Archive meetings and activities, complete activity	Annual
Year 3-5	Outreach, training and awareness	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

**13.2.6 Inspections (Type III and IV MS4s)**

Permittees will develop and implement an inspection program, which at a minimum must include periodic inspections of high priority permittee-owned facilities. Recordkeeping program will be included.

**Table 13-7: Implementation Schedule – Inspections (Type III and IV MS4s)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 3-4	After high priority facilities are identified, develop advanced inspection program and recordkeeping process	Archive meetings and activities, complete activity	Annual
Year 3-5	Identify additional BMPs as applicable, amend SWMP and provide NOC	Archive meetings and activities, complete activity	Annual
Year 3-5	Implement program	2 inspections per facility	Annual
Year 3-5	Outreach, training and awareness.	Record announcements and activities, tally delivery events.	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

**13.2.7 Pesticide, Herbicide, Fertilizer Application & Management Program (Type IV MS4s)**

The permittee will develop a Pesticide, Herbicide, Fertilizer Application & Management Program that will include 1) evaluation of the materials used and activities performed on public spaces owned and operated by the permittee such as parks, schools, golf courses, easements, public rights of way, and other open spaces for pollution prevention opportunities, 2) implementation of educational activities, permits, certifications, and other measures for the permittee’s applicators and distributors, 3) pest management measures that encourage non-chemical solutions where feasible, 4) development of a schedule for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and

expected precipitation, and 5) proper collection and disposal of the permittee’s unused pesticides, herbicides, and fertilizers.

**Table 13-8: Implementation Schedule – Pesticide, Herbicide, Fertilizer Application & Management Program (Type IV MS4s)**

<b>Permit Period</b>	<b>Activity</b>	<b>Measurable Goals</b>	<b>Completed By (Month and Year or Frequency of Action)</b>
Year 3-4	Evaluation of municipal activities	Archive meetings and activities, complete activity	Annual
Year 3-5	Develop P, H, F application and management program	Archive meetings and activities, complete activity	Annual
Year 3-5	Identify additional BMPs as applicable, amend SWMP and provide NOC	Archive meetings and activities, complete activity	Annual
Year 3-5	Implement program	Complete activity	Annual
Year 3-5	Outreach, training and awareness	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

## 14.0 INDUSTRIAL SOURCES (MCM #6 FOR TYPE IV MS4s)

The following section presents the additional permit requirement for the Industrial Sources Program (Minimum Control Measure #6 for IV MS4s). The section describes the existing BMPs necessary to implement this program. It describes the measureable goals for each BMP and the timeline (or frequency) for each implementation action.

### 14.1 INDUSTRIAL SOURCES PERMIT REQUIREMENTS (MCM #6 FOR TYPE IV MS4s)

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit. The BMPs listed in this section were selected to meet the following regulatory requirement (Minimum Control Measure #6 for Type IV MS4s):

<p><b>6. INDUSTRIAL STORMWATER SOURCES</b></p> <p><b>(a) Permittees operating a level 4 small MS4 shall include the requirements described below in Part III. B.6.(1) – this requirement is only applicable to level 4 MS4s</b></p> <p><b>(1) Permittees who operate level 4 small MS4s shall identify and control pollutants in stormwater discharges to the small MS4 from permittee’s landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4. The program must include priorities and procedures for inspections and for implementing control measures for such discharges.</b></p>
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### 14.2 DISCUSSION OF PROGRAMS (TYPE IV MS4)

The following table lists BMPs that meet the requirements of MCM 6.

**Table 14-1: Industrial Sources BMPs (Type IV MS4)**

Section	Description of BMP	YEAR SCHEDULE (YEAR)				
		1	2	3	4	5
14.2.1	Identify and Control Pollutants in Stormwater Discharges	X	X	X	X	X

*X – notes activity, see Section for details*

#### 14.2.1 Identify and Control Pollutants in Stormwater Discharges

The MS4 will develop and implement an industrial source identification and pollutant control program. The program will identify and control pollutants in stormwater discharges to the small MS4 from permittee’s landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and

recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4. The program will include priorities and procedures for inspections and for implementing control measures for such discharges.

**Table 14-2: Implementation Schedule – Industrial Source Program (Type IV MS4)**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Develop inventory of target facilities, review legal authority, and applicable regulations (EPCRA, RCRA, TSCA, CERCLA, etc.)	Archive meetings and activities, complete activity	Annual
Year 1-2	Develop inspection program to include procedures, checklists, guidance, training, and reporting	Archive meetings and activities, complete activity	Annual
Year 1-2	Develop program to include control measures, mitigation, enforcement and reporting	Archive meetings and activities, complete activity	Annual
Year 3-5	Implement program	Complete activity	Annual
Year 3-5	Outreach, training and awareness	Record announcements and activities, tally delivery events	Annual
Year 2-5	Assess BMP	Develop pertinent information	Annual

## 15.0 REPORTING

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The following section presents the permit requirement for the Reporting Program. The section describes the BMPs necessary to implement this program. It describes the measureable goals for each BMP and the timeline (or frequency) for each implementation action.

### 15.1 REPORTING PERMIT REQUIREMENTS

The following text is quoted directly from the Small MS4 General Permit, TPDES Permit No. TX040000, dated December 13, 2013. For additional information, please consult Appendix A which contains a copy of the entire permit. The BMPs listed in this section were selected to meet the following regulatory requirement:

#### **Part IV. Recordkeeping and Reporting**

##### **Section A. Recordkeeping**

- 1. The permittee shall retain all records, a copy of this TPDES general permit, and records of all data used to complete the application (NOI) for this general permit and satisfy the public participation requirements, for a period of at least three (3) years, or for the remainder of the term of this general permit, whichever is longer. This period may be extended by request of the executive director at any time.**
- 2. The permittee shall submit the records to the executive director only when specifically asked to do so. The SWMP required by this general permit (including a copy of the general permit) must be retained at a location accessible to the TCEQ.**
- 3. The permittee shall make the NOI and the SWMP available to the public at reasonable times during regular business hours, if requested to do so in writing. Copies of the SWMP must be made available within ten (10) working days of receipt of a written request. Other records must be provided in accordance with the Texas Public Information Act. However, all requests for records from federal facilities must be made in accordance with the Freedom of Information Act.**
- 4. The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.**

##### **Section B. Reporting**

###### **1. General Reporting Requirements**

###### **(a) Noncompliance Notification**

**According to 30 TAC § 305.125(9), any noncompliance which may endanger human health or safety, or the environment, must be reported by the permittee to the TCEQ. Report of such information must be provided orally or by electronic facsimile transmission (FAX) to the TCEQ regional office within 24 hours of becoming aware of the noncompliance. A written report must be provided by the permittee to the appropriate TCEQ regional office and to the TCEQ Enforcement**

**Division (MC-224) within five working days of becoming aware of the noncompliance. The written report must contain:**

- (1) A description of the noncompliance and its cause;**
- (2) The potential danger to human health or safety, or the environment;**
- (3) The period of noncompliance, including exact dates and times;**
- (4) If the noncompliance has not been corrected, the anticipated time it is expected to continue; and**
- (5) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.**

**(b) Other Information**

**When the permittee becomes aware that it either submitted incorrect information or failed to submit complete and accurate information requested in an NOI, NOT, or NOC, or any other report, the permittee shall promptly submit the facts or information to the executive director.**

**2. Annual Report**

**The MS4 operator shall submit a concise annual report to the executive director within 90 days of the end of each reporting year. For the purpose of this section, the reporting year may include either the permit year, the permittee's fiscal year or the calendar year, as elected by the small MS4 and notified to the TCEQ in the application submittal. The annual report must address the previous reporting year.**

**The first reporting year for annual reporting purposes shall begin on the permit effective date, and shall last for a period of one (1) year (the end of the "permit year"). Alternatively, if the permittee elects to report based on its fiscal year, the first reporting year will last until the end of the fiscal year following the end of the first permit year. If the permittee elects to report based on the calendar year, then the first reporting year will last until December 31, 2014.**

**Subsequent calendar years will begin at the beginning of the first reporting year (which will vary based on the previous paragraph) and last for one (1) year. The MS4 operator shall also make a copy of the annual report readily available for review by TCEQ personnel upon request. The report must include:**

- (a) The status of the compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals;**
- (b) A summary of the results of information collected and analyzed, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;**
- (c) If applicable, a summary of any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4s BMPs used to address the pollutant of concern;**



- (d) A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting year;
- (e) Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;
- (f) Description and schedule for implementation of additional BMP's that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementations plans;
- (g) Notice that the MS4 operator is relying on another government entity to satisfy some of its permit obligations (if applicable);
- (h) The number of construction activities where the small MS4 is the operator and authorized under the 7th optional MCM, including the total number of acres disturbed; and
- (i) The number of construction activities that occurred within the jurisdictional area of the small MS4 (as noticed to the permittee by the construction operator), and that were not authorized under the 7th MCM.

An annual report must be prepared whether or not the NOI and SWMP have been approved by the TCEQ. If the permittee has either not implemented the SWMP or not begun to implement the SWMP because it has not received approval of the NOI and SWMP, then the annual report may include that information.

If permittees share a common SWMP, they shall contribute to and submit a single system- wide report. Each permittee shall sign and certify the annual report in accordance with 30 TAC § 305.128 (relating to Signatories to Reports).

The annual report must be submitted with the appropriate TCEQ reporting forms if available, or as otherwise approved by TCEQ.

The annual report must be submitted to the following address:  
 Texas Commission on Environmental Quality Stormwater & Pretreatment Team;  
 MC - 148  
 P.O. Box 13087  
 Austin, Texas 78711-3087

A copy of the annual report must also be submitted to the TCEQ Regional Office that serves the area of the regulated small MS4. If available, electronic submission of annual reports is encouraged. The Federal Waste Reduction Act and the Government Paperwork Elimination Act encourages governmental agencies to use electronic submission. See the TCEQ website at, [www.tceq.texas.gov](http://www.tceq.texas.gov) for additional information and instructions.

## 15.2 DISCUSSION OF PROGRAMS

The following table lists BMPs that meet the reporting requirements of the new MS4 permit.

Table 15-1: Reporting BMPs

Section	Description of BMP	YEAR SCHEDULE (YEAR)
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		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
15.2.1	Reporting Program	X	X	X	X	X

X – notes activity, see Section for details

**15.2.1 Reporting Program**

The MS4s will develop and implement a reporting program and will submit an annual report pursuant to the requirements fiscal calendar selection.

**Table 15-2: Implementation Schedule – Reporting**

Permit Period	Activity	Measurable Goals	Completed By (Month and Year or Frequency of Action)
Year 1-2	Develop and implement recordkeeping program	Archive meetings and activities, complete activity.	Annual
Year 1-5	Prepare and submit annual report	Archive meetings and activities, complete activity	Dec 30, 2015, 2016, 2017, 2018
Year 1-2	Prepare and submit NOC, as applicable	Archive meetings and activities, complete activity	As needed

## 16.0 REFERENCES

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