

## STORMWATER MANAGEMENT PROGRAM (SWMP) COVER SHEET

### Confirm Each Minimum Control Measure (MCM) Below is Included in the SWMP

This cover sheet MUST be completed by indicating the page number where the requested item will be found in the SWMP. Provide the page number to the left of each item.

This cover sheet MUST be attached to the front of the SWMP.

Operator:

Operator name on NOI: \_\_\_\_\_

Assessment of program elements:

Program elements that were described in the previous permit have been assessed and modified as necessary. New elements have been developed and implemented as necessary.

N/A, If newly regulated MS4.

MCM 1: Public Education, Outreach, and Involvement

Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

#### Requirements for all MS4s:

1. SWMP includes a stormwater education and outreach program to educate public employees, business, and the general public about hazards associated with the illegal discharges and improper disposal of waste and about the impacts stormwater can have on water quality, and steps they can take to reduce pollutants in stormwater.
2. Defines the goals and objectives of the program based on high-priority community-wide issues.
3. Identifies the target audiences.
4. Appropriate educational material is developed or used.
5. Education material is distributed.

SWMP Lists Best Management Practices (BMPs) used to fulfill this MCM. Examples of possible BMPs include, but are not limited to, the following:

- Classroom Education
- Use of media
- Education/Outreach for Commercial Activities
- Lawn and garden activities
- Promotional giveaways
- Water conservation practices for homeowners
- Outreach programs tailored to specific communities and children
- Stormwater educational materials
- Educational displays, pamphlets, booklets, and utility stuffers
- Webpage
- Storm drain stenciling
- Speakers to community groups
- Encouragement of proper lawn and garden care
- Encouragement of low impact development
- Support of pollution prevention for businesses

- Encouragement of water conservation practices
  - Encouragement of pet waste management
  - Stormwater hotlines
6. SWMP includes a program that complies with state and local public notice requirements.
  7. May include using public input in the implementation of the program.
  8. May include opportunities for citizen to participate in implementation of control measures.
  9. Ensure the public easily can find information about the SWMP.

SWMP Lists Best Management Practices (BMPs) used to fulfill this MCM. Examples of possible BMPs include, but are not limited to, the following:

- Stakeholder meetings
- Community hotline
- Coordination with school groups/scouting
- Listserver
- Stream cleanup and monitoring
- Adopt-A-Stream programs
- Incentives for businesses to participate, such as web links
- Volunteer monitoring
- Watershed Organization
- Storm drain stenciling programs
- Advisory/partner committees
- Mailing list development and use
- Reforestation programs
- Wetland plantings
- Coordinate volunteer programs.

SWMP includes measureable goals, and the method of measurement, for addressing stormwater quality

SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from permit issuance date.

<b>MCM 2: Illicit Discharge Detection and Elimination</b>
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Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

**Requirements for all MS4s:**

1. Description of program that will be used to detect, investigate and eliminate illicit discharges
2. MS4 map:
  - a. Location of all small MS4 outfalls operated by the MS4 and that discharge into waters of the U.S.
  - b. Location and name of all surface waters receiving discharge from the MS4s outfalls.
  - c. Priority areas, if applicable.
3. Methods for informing and training MS4 field staff.
4. Procedures for tracing the source of an illicit discharge.

5. Procedures for removing the source of the illicit discharge.
6. Facilitate public reporting of illicit discharges of water quality impacts associated with discharges into or from the small MS4.
7. Procedures for responding to illicit discharges and spills.
8. Inspections in response to complaints.

**Additional Requirements for Level 2, 3, and 4 small MS4s:**

For Level 2, 3, and 4 small MS4, procedures to prevent and correct leaking on-site sewage disposal systems.

**Additional Requirements for Level 3 and 4 small MS4s:**

Follow-up investigation after the illicit discharge has been eliminated.

**Additional Requirements for Level 4 small MS4s:**

1. Procedures for identifying and creating a list of priority areas within the small MS4s likely to have illicit discharges.
2. Implement a dry weather field screening program to assist in detecting and eliminating illicit discharges to the small MS4.

SWMP Lists Best Management Practices (BMPs) used to fulfill this MCM.

Examples of possible BMPs may include the following:

- List of non-stormwater discharges that will not be considered illicit
- Procedures to address illegal dumping
- Hazardous materials disposal opportunities
- Industrial/Business connections
- Addressing wastewater connections to MS4
- Addressing recreational sewage (boats/camping/etc.)
- System inspections
- Dye testing
- Recycling programs
- Informing public/employees/businesses of hazards associated with illicit discharges
- Identification of illicit discharges
- Used oil collection centers
- Public outreach and education programs regarding illicit discharges
- Publicize and facilitate public reporting

SWMP includes measureable goals, and the method of measurement, for addressing stormwater quality.

SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from permit issuance date.

<b>MCM 3: Construction Site Stormwater Runoff Control</b>
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Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

**Requirements for all MS4s:**

1. Description of program that will be developed, implemented and enforced, to address stormwater runoff from construction once acre and greater (including larger common plan).
2. Ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state and local law.
3. Program requires construction site operators to implement erosion and sediment control – BMPs to minimize the discharge of pollutants.
  - a. Program requires soil stabilization measures, and implementation of BMPs to control pollutants from equipment and vehicle washing and other wash waters.
  - b. Program requires operators to minimize exposure to stormwater of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials.
  - c. Minimize the discharge of pollutants from spills and leaks. As an alternative, ensure that the construction site has developed a stormwater pollution prevention plan in accordance with the TPDES Construction General Permit TXR150000.
4. Program prohibits illicit discharges such as wash out wastewater, fuels, oils, soaps, solvents, and dewatering activities.
5. Procedures for construction site plan review to consider water quality impacts.
6. Procedures for construction site inspections and enforcement of control measures, to the extent allowable under state and local law.
7. Procedures for receipt and consideration of information submitted by the public.
8. Procedures for MS4 staff training.

**Additional Requirements for Level 3, and 4 small MS4s:**

Includes an inventory of all permitted active construction sites greater than one acre or less than one acre if part of a larger common plan of development.

SWMP lists BMPs used to fulfill this MCM. Examples may include:

- Requirement to comply with TPDES CGP
- Notification to discharger of responsibilities under TPDES CGP
- Hire staff to review construction site plans
- Provide a web page for public input on construction activities
- Require overall construction site waste management
- Perform site inspections and enforcement
- Provide education and training for construction site operators
- Notify dischargers of requirement to obtain TPDES permit coverage
- Mechanism to prohibit discharges into MS4 where necessary

SWMP includes measurable goals, and the method of measurement, for addressing stormwater quality.

SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from permit issuance date.

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

Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

**Requirements for all MS4s:**

1. Description of program that will be developed, implemented and enforced, to address stormwater runoff 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.
2. Ordinance or other regulatory mechanism is in place or planned which will regulate discharges from new development and redevelopment projects.
3. 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.
4. Document and maintain records of enforcement actions.
5. Long-term operation and maintenance of post construction stormwater control measures is addressed.
6. Operation and maintenance is documented.

**Additional Requirements for Level 4 small MS4s:**

1. Develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained.
2. Inspections are documented.

SWMP lists BMPs used to fulfill this MCM. Examples may include:

- Local ordinance in place or planned
- Guidance document for developers to utilize
- Specific BMPs established for particular watersheds
- List of appropriate BMPs provided to operators
- Elimination of curbs and gutters is encouraged
- Zoning takes into account stormwater issues
- Incentives for use of permeable choices, such as porous pavement
- Requirements for wet ponds or other BMPs for certain size sites
- Xeriscaping

SWMP includes measurable goals, and the method of measurement, for addressing stormwater quality.

SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from permit issuance date.

Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

**Requirements for all MS4s:**

1. An operation and maintenance (O&M) program, including an employee training component, in place or scheduled, to reduce/prevent pollution from municipal activities and municipally owned areas included 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.
2. Develop and maintain an inventory of the MS4's facilities and stormwater controls.
3. Inform or train staff involved in good housekeeping practices.
4. Waste from the MS4 is removed and properly disposed.
5. Contractors hired by the MS4 must be required to comply with operating procedures.
  - a. MS4 develop contractor oversight procedures.
6. MS4 evaluates O&M activities for their potential to discharge pollutants in stormwater for road and parking lot maintenance, bridge maintenance, cold weather operations, and right-of-way maintenance etc.
  - a. MS4 identifies pollutants of concern that could be discharged from the O&M activities.
  - b. MS4s develop and implement pollution prevention measures that will reduce discharge of pollutants from O&M activities.
  - c. MS4s inspects pollution prevention measures at MS4 facilities.
7. MS4 maintains structural controls.

**Additional requirements for Level 3 and 4 small MS4s:**

1. Storm sewer system O&M.
  - a. MS4 develops and implements an O&M program to reduce the collection of pollutants in catch basins and other surface structures.
  - b. MS4 develops a list of potential problem areas for increased inspection (for example, areas with recurrent illegal dumping).
2. Implement an O&M program to reduce discharge of pollutants from roads that might include a street sweeping and cleaning program, or inlet protection. The program includes an implementation schedule and a waste disposal procedure.
3. MS4 map identify MS4 facilities and stormwater controls.
4. MS4 assess its facilities for their potential to discharge pollutants into stormwater.
  - a. The MS4 identifies high priority facilities that have a high potential to generate stormwater pollutants. At a minimum, facilities include the MS4s maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharge in stormwater.
  - b. The MS4 documents the result of the assessments.
5. The MS4 develops stormwater management Standard Operation Procedures for high priority facilities.
6. The MS4 implements stormwater controls at high priority facilities that address:
  - a. Good housekeeping

- b. De-icing and anti-icing storage
  - c. Fueling operations and vehicle maintenance
  - d. Equipment and vehicle washing
7. The MS4 develops and implements an inspection program that includes high priority facilities.

**Additional requirements for Level 4 small MS4s:**

MS4 has an application and management program for pesticides, herbicides, and fertilizers that address:

- a. Evaluating materials and activities used at public open spaces.
- b. Implementing the following practices to minimize generating pollutants related to landscaping.
  - i. Education for applicators and distributors
  - ii. Encouragement of non-chemical solutions for pest management
- c. Development of schedules that minimizes discharge of pollutants.
- d. Ensuring collection and proper disposal of unused pesticides, herbicides, and fertilizers.

SWMP lists BMPs used to fulfill this MCM. Examples may include:

- BMPs which address fleet vehicle maintenance/washing
- BMPs which address parking lot and street cleaning
- Catch basin and storm drain system cleaning
- Landscaping and lawn care (e.g. xeriscaping)
- Waste materials management
- Road salt application and storage practices
- Used oil recycling
- Pest management practices
- Fire training facilities
- BMPs which address roadway and bridge maintenance
- Golf course maintenance/waste disposal
- Disposal of cigarette butts
- Park maintenance (e.g., providing trash bags)

SWMP includes measurable goals, and the method of measurement, for addressing stormwater quality.

SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from permit issuance date.

<b>MCM 6: Industrial Stormwater Sources</b>
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Page # (s) – Provide the page number (s) to the left of each item.

The SWMP includes the following required elements:

**Requirements for Level 4 MS4 only:**

Program to identify and control industrial stormwater sources that at least includes:

- a. MS4 landfills, other treatment, storage, or disposal facilities for municipal waste, hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA).
- b. Priorities and procedures for inspections and for implementing control measures for such discharges.

**Optional 7<sup>th</sup> MCM: Municipal Construction Activities (only available within the regulated area where the MS4 operator meets the definition of construction site operator)**

Page # (s) – Provide the page number (s) to the left of each item.

If this MCM is applicable, the SWMP includes the following information:

1. Description of how construction activities will generally be conducted so as to take into consideration local conditions of weather, soils, and other site specific considerations.
2. Description of the area that this MCM will address and where the MS4 operator's construction activities are covered (e.g. within the boundary of the urbanized area, the corporate boundary, a special district boundary, an extra territorial jurisdiction, or other similar jurisdictional boundary).
3. If the area included in this MCM includes areas outside of the UA, then all MCMs will be implemented over those additional areas as well.
4. Description provided for one of the following:
  - a. How contractor activities will be supervised or overseen to ensure that the Stormwater Pollution Prevention Plan (SWP3) requirements are properly implemented at the construction site(s); or
  - b. How the MS4 operator will make certain that contractors have a separate authorization for stormwater discharges if needed.
5. General description of how a construction SWP3 will be developed for each construction site.
6. Records of municipal construction activities authorized under this optional MCM.



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# Municipal Separate Storm Sewer System (MS4) Stormwater Management Program

TPDES No. TXR040000

April 28, 2014



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**City of San Marcos  
Municipal Separate Storm Sewer System (MS4)  
Stormwater Management Program**

**April 28, 2014**

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# 1 Background

Through the requirements of the Public Law 92-500, the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) is required to protect the water quality for natural waters throughout the country. Working to reduce or eliminate the pollutants from the waters of the U.S., the EPA established the program known as the National Pollutant Discharge Elimination System (NPDES) to identify water pollution sources.

The EPA has delegated responsibility for the NPDES program in Texas to the Texas Commission on Environmental Quality (TCEQ). In addition to issuing discharge permits to traditional *point sources*, such as wastewater treatment plants, TCEQ is also responsible for minimizing pollution from *non-point sources*, such as stormwater runoff from construction sites, industrial facilities and municipal stormsewer systems.

The TCEQ has issued requirements for minimizing stormwater pollution from construction sites and industrial facilities through the issuance of general permits. Sites and facilities comply with these requirements by developing and implementing site-specific stormwater pollution prevention plans (SWPPP).

To protect storm water quality from pollution entering municipal separate stormsewer systems (MS4s) in highly populated areas, TCEQ has developed a general permit with specific conditions that apply to MS4s.

## 1.1 Purpose and Scope

The EPA issued regulations in 1999 intended to protect stormwater quality in small cities and urbanized areas. EPA delegated responsibility for implementing the regulations in Texas, commonly called the Phase II Stormwater Program, to the TCEQ. The regulations applied to cities with populations greater than 50,000, or those located within an urbanized area according to the 2000 Census.

The EPA required the TCEQ to develop storm water quality permit conditions for regulated public entities that maintain municipal separate storm sewer systems (MS4). The first permit term for Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 ended on August 12, 2012. The new General Permit issued on December 13, 2013 applies to all cities and urbanized areas based on populations recorded in the 2010

Census. The City of San Marcos is one of several entities that are now required to develop a program to protect stormwater quality under TPDES General Permit No. TXR040000.

The City of San Marcos has developed a stormwater management program (SWMP) that includes a list of Best Management Practices (BMP's) that will be implemented by the city in order to achieve the regulatory standard of reducing pollutants in the city's stormwater to the "maximum extent practicable." Existing City of San Marcos stormwater programs and activities designed to protect the city's water quality will be supplemented with new BMP activities.

Measurable goals and an implementation schedule were developed for each of the BMP's in the SWMP. The BMP's, measurable goals, implementation schedule, and final SWMP were developed with input from the city's departments and review by the city council. They were also selected based upon a general assessment of BMP effectiveness, applicability in the San Marcos environment, costs associated with implementation of the BMP's, and consistency with ongoing water quality initiatives, such as the Habitat Conservation Plan (HCP) developed through the Edwards Aquifer Recover and Implementation Plan (EARIP). Effectiveness of the selected BMP's, and success in achieving the selected measurable goals will be reviewed annually.

## 1.2 City of San Marcos

San Marcos is located in Hays, Caldwell, Guadalupe, and Comal counties. According to the results of the 2010 Census, the city was designated as an urbanized area (UA) and is, therefore, eligible for coverage under TPDES general permit TXR040000 for Phase II (small) Municipal Separate Stormsewer Systems (MS4s).

The city is located along intersection of the Edwards Plateau and the Texas Blackland Prairies ecoregions. Located along the southern Edwards Plateau, that portion of the city located in the Balcones Canyonlands ecoregion is characterized by thin, rocky soils, springs, streams, canyons and sinkholes. Along and east of IH 35, the city within the Northern Blackland Prairie is characterized by clay soils and natural prairie vegetation. The San Marcos River and the Blanco River flow through the city along with several creeks, including Cottonwood Creek, Purgatory Creek, Sink Creek, and Willow Springs Creek.

Climate for the area is characterized by a humid, subtropical, continental climate with hot summers and mild winters. Rainfall averages approximately 35 inches per year with most occurring in spring and early autumn.

## 1.2.1 Legal Authority

The City of San Marcos is a chartered home-rule municipality, operated by a council - manager form of government. Elected officials include the mayor and six at-large city council members. The city regulates activities within its boundaries through ordinances designed to protect the health, safety, and welfare of its citizens. There are various ordinances that may support various aspects of the Storm Water Management Plan (Table 1).

**Table 1: Current SWMP Support Ordinances**

City of San Marcos Municipal Code of Ordinances (2012)				
Subpart	Chapter	Article	Division	Subject
A	34			Environment
A	58	2		Parks
A	86	3	2	Industrial Waste Discharge Regulations
A	86	3	3	Fats, Oils, and Grease
A	86	3	4	On-Site Sewage Facilities
B	5	3		Environmental Regulations

### 1.2.1.1 Legal Authority Required Under the General Permit

Under the terms of the general permit, the city must review existing ordinances and consider additional ordinances as described in the SWMP. Legal authority must include:

- 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 in the MS4].
- c. Authority to require compliance with conditions in the city's ordinances, permits, contracts, or directives.
- d. Authority to require installation, implementation, and maintenance of control measures.
- e. Authority to receive and collect information [from construction site operator, land developments, and industrial and commercial facilities], such as stormwater plans and inspection reports, necessary to assess compliance with the general permit.
- f. Authority to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the MS4.
- g. Authority to respond to non-compliance with BMPs required by the city.
- h. Authority to assess penalties, including monetary, civil, or criminal penalties.
- i. Ability to enter into interagency or interlocal agreements or other maintenance agreements, as necessary.

Beginning on the effective date of the TCEQ acceptance of the city's NOI and SWMP for coverage under the General Permit, the city will undertake a process to review and revise (if necessary) relevant ordinances that provide legal authority to control pollutant discharges into the MS4 in order to meet the requirements of the general permit or develop such ordinances that establish the city's legal authority.

Progress in the review of existing ordinances will be reported in the Annual Reports and will be completed within the first two years of the SWMP, with the exception of a ordinances that address development and redevelopment. This will be part of a comprehensive review of the city's land development code that will be completed within the five year permit term. New ordinances required to fully establish the city's legal authority under the General permit will be drafted and adopted prior to the end of the five year permit term.

### **1.3 Stormwater Management Program (SWMP) Requirements**

The City is required to develop a SWMP that describes specific actions that will be taken over a five-year period to reduce pollutants and protect stormwater quality. The SWMP must also define measurable goals and provide a schedule for the implementation of BMPs over the next five years.

Phase II MS4s are categorized by population:

- Level 1: Small MS4 operators that serve a population of less than 10,000 within an Urbanized Area (UA);
- Level 2: Small MS4 operators that serve a population of at least 10,000 but less than 40,000 within a UA;
- Level 3: Small MS4 operators that serve a population of at least 40,000 but less than 100,000 within a UA; and
- Level 4: Small MS4 operators that serve a population of 100,000 or more within a UA.

According to the results of the 2010 Census, San Marcos is within the category of Level 3.

Implementation of the MEP standard requires the development and implementation of best management practices (BMPs) and the achievement of measurable goals to satisfy six minimum control measures (MCMs). It is expected that when these MCMs are addressed in concert, it will result in significant reductions of pollutants being discharged into receiving water bodies.



The six MS4 program MCMs are:

1. Public Education, Outreach, and Involvement.
2. Illicit Discharge Detection and Elimination (IDDE).
3. Construction Site Stormwater Runoff Control.
4. Post-Construction Stormwater Management in New Development and Redevelopment.
5. Pollution Prevention and Good Housekeeping for Municipal Operations.
6. Industrial Stormwater Sources (*required only of Level 4 MS4s*).

The sixth MCM (Industrial Stormwater Sources) and an optional seventh minimum control measure, to address municipal construction activities through their SWMP, have not been selected for inclusion in this SWMP.

## 1.4 Recordkeeping and Reporting Requirements

A primary component of the MS4 general permit is recordkeeping that allows for periodic evaluation of the management plan and for annual reporting to the TCEQ on the status of the plan. Specifically, Phase II MS4s are required to:

- Retain all records, a copy of the TCEQ general permit, and records of all data used to complete the NOI for a period of three years or for the term of the TCEQ permit, whichever is longer.
- Retain a copy of the SWMP at a location accessible to the TCEQ.
- Make the records, including the Notice of Intent (NOI) and SWMP, available to the public if requested to do so in writing. The SWMP must be made available within ten (10) working days following a written request. Other records must be provided in accordance with the Texas Public Information Act.
- 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.

The following subsections summarize the general reporting requirements for MS4s.

### 1.4.1 Noncompliance Notification

Under the terms of the general permit, the city must develop a standard operating procedure (SOP) to respond to violations to the extent allowable under state and local law. Any noncompliance which may endanger human health or safety, or the environment, in accordance with 30 TAC Chapter 305.125(9), must be reported by the MS4 to the TCEQ. Oral and/or facsimile notification of the noncompliance must be made within 24 hours of becoming aware of

the issue. A written report must be provided to the TCEQ within five working days. Additionally, the MS4 must promptly submit to TCEQ any facts or information relevant to an NOI, Notice of Termination (NOT), Notice of Change (NOC), or any other report.

### 1.4.2 Annual Report

The city will submit a concise annual report to the executive director within 90 days of the end of each reporting year. The annual report must address the previous reporting year. The general permit provides three options for MS4 operators to designate as the reporting year: the permit year, the permittee's fiscal year or the calendar year. The City of San Marcos has elected to use the city's fiscal year as the reporting year, making **annual reports to TCEQ due by December 30 of each year** beginning December 30, 2015.

The annual report will include:

1. 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;
2. 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;
3. A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting year;
4. Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and
5. Notice that the MS4 operator is relying on another government entity to satisfy some of its permit obligations (if applicable);

The annual report will also include a summary of any proposed changes to the SWMP planned for the next reporting cycle.

## 1.5 Definitions

The definition of terms within this SWMP are those within TPDES General Permit TXR040000, Part I – Definitions (See Appendix C).

## 1.6 SWMP Changes

This SWMP may be changed by the city at any time. According to the general permit, adding components, controls, or requirements to the SWMP, or replacing a BMP with an equivalent or better BMP only requires notification of TCEQ.

When considering eliminating a BMP, the list of BMPs by Regulatory Requirement presented in Appendix A must be reviewed to ensure that removal of the BMP will not result in non-compliance for any of the minimum control measures. If the BMP to be eliminated is the only BMP that provides compliance for a specific permit provision, then a new BMP that continues to meet the relevant permit requirement must be added to the SWMP.

A Notice of Change (NOC) must be submitted to the TCEQ for review and approval when changing the SWMP to replace an unsuccessful BMP with an alternative BMP (e.g. replacing a structural BMP with a non-structural BMP). An NOC and TCEQ approval are not required for:

- Adding BMPs.
- Replacing a BMP with a BMP that is substantially similar in nature to the BMP.
- Making non-substantive changes, such as minor clarifications to the SWMP (for example, updating for department reorganization, minor clarifications of BMPs, or correction of typographical errors).
- Adding or subtracting areas such as by annexation or de-annexation.

Specific requirements for SWMP changes and documentation of plan updates involving changes in BMPs, measurable goals, or the implementation schedule can be found in the general permit contained in Appendix C.

## 2 Plan Development Process

### 2.1 BMP Selection

The Public Services Department provided guidance in the selection of BMP's and the development of San Marcos' SWMP. Each city department was involved in the identification and assessment of existing and proposed BMPs. Various structural and non-structural BMP's will be implemented throughout the five year permit term authorized under the general permit. A two-step process was used to select the BMP's to be included in San Marcos' SWMP.

The city has historically been conscientious about all types of pollution prevention programs and has been proactive in developing and implementing measures intended to protect the water quality of the San Marcos River and the Edwards Aquifer. Whenever it has been feasible, the city has sought to be a part of regional water quality initiatives. The City of San Marcos has historically implemented various stormwater related BMP's intended specifically to protect the water quality of the San Marcos River and its tributaries.

An important aspect of developing an effective, compliant, and cost efficient TPDES Small MS4 SWMP is to acknowledge these on-going programs and identify how each is related to the MCMs of the general permit. Details of the city's existing stormwater related programs were collected, summarized, and categorized into one of the five MCM's required by the general permit. Several of the city's existing programs meet specific general permit requirements and contribute toward fulfilling the general permit requirement to reduce pollutants to the maximum extent practicable. Additional BMP's were selected to supplement the city's existing programs and to fulfill the requirements of the general permit. BMP's were evaluated for each of the five MCM's.

Alternative or future BMP's should be assessed relative to the following criteria:

- Does the BMP fulfill general permit requirements?
- What is the perceived effectiveness of the BMP?
- Is the BMP appropriate for San Marcos?
- What is the estimated cost of implementing the BMP?

#### 2.1.1 Measurable Goals and Implementation Schedule

Selection of the BMPs, measurable goals, and an implementation schedule was based on what was seen as necessary and achievable by those city departments who will be responsible for accomplishing the activities supporting the BMPs. Consideration was also given to whether or

not inclusion of the activities in the SWMP would meet the permit requirements. Obviously, costs associated with implementing the various BMPs and measurable goals will be evaluated on an annual basis. Implementation of each BMP will be tracked as required during each year of the permit. Adjustments to the BMPs and implementation schedules will be made as necessary according to permit requirements.

The implementation schedule is based on the city's fiscal year (ending September 30). BMP implementation is scheduled for the month of September in each fiscal year.

## 2.2 Development and Review Process

The city departments involved in the implementation, tracking, enforcement, and assessment of the SWMP include:

- Community Services
- Public Services
- Engineering and CIP
- Development Services
- City Management
- Public Information

Meetings of the city departments involved in BMP selection were held on August 6, 2012. The meetings culminated in the development of a Draft Stormwater Management Plan. A public meeting to solicit comments regarding the Draft Stormwater Management Plan was held on April 16, 2014 and the draft plan posted on the city's website for general public comment.

### **Public Notice Process for SWMP and NOI Submittal**

Following the public review and comment period for the draft SWMP, the NOI will be prepared for submission to TCEQ along with the final SWMP. The city will then publish notice of the preliminary decision on the NOI and SWMP in accordance with TCEQ instructions. Public access to both the draft and final SWMP will be maintained through the city's website.

As an applicant under the TPDES General Permit No.TXR040000, the city must adhere with the following public notice procedures described in Part II, Section E (12) of the general permit.

- (a) The city must submit an NOI and SWMP to the executive director of TCEQ. The SWMP must include information about:
- 1) BMPs the city will implement for each of the five MCMs, as appropriate;

- 2) The measurable goals for each of the BMPs, including, as appropriate the months and years in which the applicant will take the required actions, including interim milestones and the frequency of the action; and
  - 3) The person or persons responsible for implementing or coordinating the city's SWMP.
- (b) After the city receives written instructions from the TCEQ's Office of Chief Clerk, the city must publish notice of the executive director's preliminary decision on the NOI and SWMP.
- (c) The notice will include the following information, at a minimum:
- 1) The legal name of the city as the MS4 operator;
  - 2) Indication that the NOI is for a new authorization;
  - 3) The address of the city;
  - 4) A brief summary of the information included in the NOI, such as the general location of the small MS4 and a description of the classified receiving waters that receive the discharges from the small MS4;
  - 5) The location and mailing address where the public may provide comments to the TCEQ;
  - 6) The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed; and
  - 7) If required by the executive director, the date, time, and location of the public meeting.
- (d) This notice must be published at least once in a newspaper of general circulation in the municipality or county where the city is located. Being located in multiple counties, the city must publish the notice at least once in a newspaper of general circulation in the county containing the largest resident population for the regulated portion of the small MS4. This notice must provide opportunity for the public to submit comments on the NOI and SWMP. In addition, the notice must allow the public to request a public meeting. A public meeting will be held if the TCEQ determines that there is significant public interest.
- (e) The public comment period begins on the first date the notice is published and lasts for at least 30 days. If a public meeting is held, the comment period will end at the closing of the public meeting (see paragraph (f) below). The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI or SWMP for the small MS4 fails to meet the technical requirements or conditions of this general permit.
- (f) If significant public interest exists, the executive director will direct the city to publish a notice of the public meeting and to hold the public meeting. The city must publish notice of

a public meeting at least 30 days before the meeting and hold the public meeting in a county where the small MS4 is located. TCEQ staff will facilitate the meeting.

- (g) If a public meeting is held, the city will describe the contents of the NOI and SWMP. The city will also provide maps and other data on the small MS4. The city will provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the executive director. A public meeting held under this general permit is not an evidentiary proceeding.
- (h) The city will file with the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Chief Clerk.
- (i) The executive director, after considering public comment, will either approve, approve with conditions, or deny the NOI based on whether the NOI and SWMP meet the requirements of this general permit.

## 3 Minimum Control Measures (MCMs)

### 3.1 MCM 1: Public Education, Outreach, and Involvement

*General Permit Requirement: **Part B.1.(a)***

*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.*

#### 3.1.1 Current Programs

The City of San Marcos provides public education and outreach opportunities to the residents, business community, and visitors through informational signs, printed materials, and website information. Through the Parks, Solid Waste, and Environmental Health divisions of the Community Services department and through the Transportation and Water & Wastewater Utilities divisions of the Public Services Department, the city provides printed informational signs in public parks and printed brochures that are distributed by mail and through personal contact on a routine basis throughout the year. Conservation and pollution prevention materials are made available at various city facilities and events, and at the San Marcos Visitors Center.

#### 3.1.2 Best Management Practices

##### Target Audiences

Best management practices for public education are focused on residents, businesses, university students, and visitors to San Marcos. Public involvement efforts are designed to engage residents and businesses in ongoing stormwater programs supported by the city. The city will determine and then coordinate education and outreach efforts as appropriate with Texas State University to maximize the program and cost effectiveness of the Public Education, Outreach, and Involvement Control Measure.

##### **BMP 1.01 Stormwater Quality Outreach Materials**

The City of San Marcos has developed a variety of educational brochures, utility bill inserts, and door hangars that are designed to inform residents and visitors of the effects of polluted stormwater runoff on the San Marcos River and the Edwards Aquifer and how individuals can minimize impacts on the local environment. Current publications are provided to the community in both English and Spanish and include:



- *What Not to Flush*
- Household hazardous waste brochure
- River water quality brochures
- Door hangars for neighborhoods following storm sewer cleaning

**Measurable Goals:**

- Identify target audiences and develop outreach materials accordingly.
- Continue to develop and distribute stormwater quality education materials.
- Distribute printed materials and promotional items throughout the community as appropriate in order to inform residents, visitors, businesses, and public service personnel on the importance of stormwater management activities.
- Distribute printed materials to local hotels, restaurants, and river outfitters that have contact with visitors.

**Evaluation:**

- Record the quantity of materials distributed throughout the community and report the data as part of the SWMP annual report.

**BMP 1.02 Pet Waste Management in Parks**

The Parks Division of the Community Services Department will maintain pet waste collection dispensers in public parks to promote proper owner disposal of pet wastes. The dispensers include informative signage that encourages pet owners to make use of the dispensers regularly.

**Measurable Goals:**

- Install fifteen (15) pet waste collection dispensers in city parks along the San Marcos River and tributaries.

**Evaluation:**

- Record the number of pet waste collection bags distributed annually and report the data as part of the SWMP annual report.

### **BMP 1.03 . Trash & Debris Management**

The City of San Marcos has long been proactive in creating opportunities for community volunteers. These opportunities include annual community cleanup events and the city's curbside recycling program. The annual events include:

- The San Marcos River Cleanup.
- *Keep San Marcos Beautiful* Community Cleanups
- Don't Mess with Texas Trash-Off with Bobcat Build Event: This is the single largest one-day cleanup for the state of Texas. This event serves as Texas' signature event for the Great American Cleanup.
- *Adopt a Spot*: In order to encourage litter reduction and beautification throughout the community, the City of San Marcos implemented the *Adopt a Spot* program. Volunteers adopt a spot, park, or a section of the river. The adoption process involves cleaning and beautifying the spot at least four times a year. The program strives to raise public awareness; educate citizens about the source of debris; and generate public support for community involvement.

#### **Measurable Goals:**

- Advertise and host four (4) community cleanup events each year.
- Track number of households participating in curbside recycling.
- Develop and distribute outreach materials to enhance program visibility and participation.

#### **Evaluation:**

- Annually report the number of participants in each community cleanup event.
- Annually report the number of participants at active *Adopt a Spot* locations.
- Record the names of participating organizations and the number of volunteer hours each organization contributes to the program.
- Record the volume of trash and debris collected at each event and at each *Adopt a Spot*.

### **BMP 1.04 Classroom Education**

The San Marcos Nature Center hosts regular outdoor education programs that provide students with information about watersheds and water quality. These programs include:

- *What's a Watershed?* How the land surrounding our river affects the health and well-being of the San Marcos River. How does litter affect the river from miles away? What can individuals do at home to help the river stay clean?

- *A River Runs Through It*: Exploring the San Marcos River by discussing the history of San Marcos and why the river is so important to the community
- *Down and Dirty*: Introduction to soil science. Topics include different kinds of dirt, animals that live underground, and erosion.

**Measurable Goals:**

- Conduct a minimum of four (4) outdoor education camps each year.

**Evaluation:**

- Track and report the number of program participants in the Nature Center Programs.

**BMP 1.05 River Visitor Education**

The city's *Conservation Crew* will meet with river visitors and residents to discuss stormwater and water quality in the San Marcos River.

**Measurable Goals:**

- Maintain a presence during months of peak river recreational activity.

**Evaluation:**

- Track and report the number of people contacted by the *Conservation Crew*.

**BMP 1.06 Promote San Marcos River Water Quality**

The City of San Marcos performs monthly bacteriological testing of the San Marcos River. The city's environmental health department has used the results of the tests to issue warnings regarding contact recreation in the river when testing revealed high concentrations of fecal coliform and fecal strep bacteria.

**Measurable Goals:**

- Post monthly test results on the city website.

**Evaluation:**

- Track and report the number of times the test results are accessed each month.

### **BMP 1.07 Media Access for Stormwater Education**

Videos that have been used in presentations to community groups will be made available to public access through the local access cable channel and through the city's website.

#### **Measurable Goals:**

- Provide public access to "Reduce Runoff" and "After the Storm" videos through the city website.
- Provide public access to "Reduce Runoff" and "After the Storm" videos through the local public access cable channel.

#### **Evaluation:**

- Track and report the number of times each video is shown on the local public access channel.
- Track and report the number of times each video is accessed through the city website.

### **BMP 1.08 Storm Drain Marking**

Storm sewer outlets will be stenciled with messages indicating that stormwater collected by the inlet flows to the San Marcos River. The city will develop a new storm sewer manhole design with an anti-pollution message. The redesigned manhole covers will be incorporated into new installations with new construction and infrastructure rehabilitation projects.

#### **Measurable Goals:**

- Coordinate selection of a manhole cover design with Texas State University.
- Use volunteer organizations to stencil 25 inlets per year.
- Develop a new stormsewer manhole cover design.
- Install redesigned manhole covers as part of new construction and rehabilitation projects.

#### **Evaluation:**

- Track and report number of inlets stenciled each year.
- Track and report number of redesigned manhole covers installed each year.

### **BMP 1.09 Public Notice for Stormwater Management Program Development**

Notice of the TCEQ executive director's preliminary determination of the NOI and SWMP will be published in the *San Marcos Daily Record*.

**Measurable Goals:**

- Publish the notice provided by TCEQ and submit an affidavit of publication.

**BMP 1.10 Community Cleanup Events**

Community cleanup events are an important part of promoting ways to protect water quality and engaging volunteers from the community.

**Measurable Goals:**

- Conduct the annual San Marcos River Cleanup.
- Conduct the annual *Don't Mess with Texas Trash Off* and *Bobcat Build* events.
- Conduct the *Adopt a Spot* program for litter collection.

**Evaluation:**

- Track and report the number of events.
- Track and report the number of participants in each event.
- Track and report the volume/weight of litter or debris collected and removed.

## **3.2 MCM 2: Illicit Discharge Detection and Elimination**

*General Permit Requirement: Part B.2.(a)*

*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.*

### **3.2.1 Current Programs**

Current programs of the city include maintenance of an inventory of on-site septic system (OSSF) within the city limits and operation of an annual household hazardous waste collection program.

### **3.2.2 Best Management Practices**

**BMP 2.01 Stormsewer System Mapping**

The city will develop and update a map of the stormsewer system, including the location of all outfalls and the name and location of surface water receiving stormsewer outfall.

**Measurable Goals:**

- Map 20% of the city's stormsewer system and outfalls each year.
- Develop policies and procedures for updating the stormsewer system map with new, altered, and newly located stormsewer features.
- Update the stormsewer system map with new, altered and newly discovered storm sewer features.

**Evaluation:**

- Annually track and report the approximate percentage of the city's stormsewer system mapped.
- Distribute policies and procedures to each department involved in development review and stormsewer maintenance and operation.
- Annually track and report updates to the stormsewer system map.

**BMP 2.02 Illicit Discharge Detection and Elimination Legal Authority**

City staff will conduct a review of existing legal authority and submit proposals to the city council for ensuring the legal authority exists to effectively prohibit non-storm water discharges into the city's stormsewer system.

**Measurable Goals:**

- Develop and adopt an illicit discharge ordinance and enforcement procedures.
- Notify residents, businesses, and industries of the illicit discharge ordinance and investigation and enforcement procedures using the city's website, utility bill inserts, and other public notice means.
- Implement reporting procedures and enforcement of the illicit discharge regulations.

**BMP 2.03 Employee Information and Training**

The city will develop a program for informing and training employees in recognizing and reporting illicit discharges and connections to the MS4.

**Measurable Goals:**

- Develop a list of employee positions to be trained on the identification and reporting of illicit discharges and other reporting requirements of the SWMP.
- Develop a training program, including materials and internal reporting forms and procedures.

- Develop a training schedule and conduct training of identified personnel.
- Conduct training for new and additional employees.

**Evaluation:**

- Annually track and report the number of employees receiving IDDE training.

**BMP 2.04 Septic System Ordinance**

Maintain an inventory of on-site sewage facilities (OSSFs) within the city limits with procedures to require correction of leaking or overflowing OSSFs.

**Measurable Goals:**

- Maintain the existing inventory of OSSFs within the city limits.
- Update OSSF service records with an annual audit of OSSFs.

**Evaluation:**

- Track and report the number of OSSFs audited.
- Track and report the number of OSSFs removed as a result of sanitary sewer system extension or structure demolition.

**BMP 2.05 Grease Trap Management (FOG Program)**

Apply the requirements of the fats, oil, and grease (FOG) ordinance for grease trap installation and maintenance at non-domestic food handling establishments.

**Measurable Goals:**

- Continue to require grease traps for new establishments.
- Inspect new grease trap installations.
- Monitor grease trap maintenance records for conformance with the provisions of the FOG ordinance.

**Evaluation:**

- Track and report the number of new grease trap installations.
- Track and report the number of grease trap installation maintenance reports.

### **BMP 2.06 Inspect Sanitary Sewers on the Edwards Aquifer Recharge Zone**

Conduct inspections of sanitary sewers on the EARZ at 5 year intervals.

#### **Measurable Goals:**

- Track and report the number of linear feet of sanitary sewers located on the EARZ inspected in each year.

#### **Evaluation:**

- Assess the condition of sanitary sewers on the EARZ inspected to be included in the city's program of collection system repairs.

### **BMP 2.07 Sanitary Sewer Overflow Initiative (SSOI) Participation**

The city participates in the TCEQ Sanitary Sewer Overflow Initiative (SSOI).

#### **Measurable Goals:**

- Continue the program of Sanitary Sewer Evaluation Studies (SSES) and sewer rehabilitation and repair projects as addressed in the city's SSOI plan.

### **BMP 2.08 Proper Disposal of Household Hazardous Wastes**

The city of San Marcos conducts regular collections of household hazardous wastes and recyclable materials twice each week. Household cleaners, latex paint, household batteries, pesticides, and other materials accepted at a central location. The regular schedule for accepting materials is intended to provide convenient drop-off location for residents to ensure encourage residents to properly dispose of their wastes. This service is advertised through the city's website and brochures that are distributed at city events.

#### **Measurable Goals:**

- Collect household hazardous wastes at a central location.
- Distribute informational brochures to inform residents of the service.

#### **Evaluation:**

- Track and report the number of residents who drop off materials at the collection station.
- Report the volume of materials collected.



## **BMP 2.09 Establish Written IDDE Procedures**

The city will develop written procedures for illicit discharge detection and discharge elimination.

### **Measurable Goals:**

- Develop and maintain written procedures for implementing the BMPs for Illicit Discharge Detection and Elimination.

## **3.3 MCM 3: Construction Site Stormwater Runoff Control**

### *General Permit Requirement: **Part B.3.(a)***

*All permittees shall develop, implement and enforce a program requiring operators of small and large construction activities, as defined in Part I of the 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.*

### **3.3.1 Current Programs**

The city maintains an active program of construction plan review and project inspection. The city's Land Development Code specifically addresses temporary erosion control for development of land located on hillsides, in the Edwards Aquifer recharge, transition, and upland zones, in the San Marcos River Corridor (SMRC), and in the other river, stream and waterway corridors, within the city limits and within the city's extraterritorial jurisdiction.

### **3.3.2 Best Management Practices**

#### **BMP 3.01 Active Construction Site Inventory**

The city will develop a system for maintaining an inventory of permitted active construction sites  $\geq 1$  acre. This inventory will not include active construction sites managed by Texas State University on university-owned property.

### **Measurable Goals:**

- Develop a system for maintaining an inventory of active construction sites  $\geq 1$  acre or less than 1 acre if part of a larger common plan, development, or sale.
- Implement the system for permitted active private and public construction sites.

**Evaluation:**

- Reports from the inventory of permitted sites list both active sites and sites that became inactive during the fiscal year.

**BMP 3.02 Review and Maintain Legal Authority for Construction Site Runoff Control**

The city will review existing regulations to ensure that the legal authority to address construction site storm water runoff from development and redevelopment construction sites is in place and is enforceable.

**Measurable Goals:**

- Review and update regulations as needed to reflect changes in technology and to clarify requirements of the city's code of ordinances.
- Review and update regulations to require soil stabilization whenever clearing, grading, excavation or other earth disturbing activities have temporarily or permanently ceased.
- Review and update regulations to address prohibited construction related discharges.

**Evaluation:**

- Reports from the inventory of permitted sites will list both active sites and sites that became inactive during the fiscal year.

**BMP 3.03 Construction Plan Review**

Review site plans and construction plans for all new development and redevelopment and for capital construction.

**Measurable Goals:**

- Construction plans are reviewed prior to construction to verify compliance with the city's temporary erosion control ordinances for new development and redevelopment.

**Evaluation:**

- The number of plan submittals and approvals will be tracked and reported.

### **BMP 3.04 Drainage and Water Quality Criteria Review**

City staff will review the city's drainage and water quality design criteria for consistency and compliance with city goals and objectives and state and federal mandates. The criteria will be updated as needed.

#### **Measurable Goals:**

- Update the drainage design and water quality criteria in response to the city's comprehensive planning process, and state and federal mandates.

### **BMP 3.05 Construction Site Compliance Monitoring**

The city will continue its current program of construction site inspection and enforcement of the use and maintenance of construction site BMPs.

#### **Measurable Goals:**

- Continue to inspect construction sites for erosion and sedimentation control BMPs.
- Enforce compliance with city regulations regarding temporary erosion control.

### **BMP 3.06 Training**

The city will train city personnel and construction contractors on the installation and maintenance of temporary erosion control BMPs at private development and redevelopment sites.

#### **Measurable Goals:**

- Develop a list of local contractors to be invited for training on the installation and maintenance of temporary erosion BMPs.
- Develop a training program, including materials and internal reporting forms and procedures.
- Develop a training schedule and conduct training of identified contractors and city staff.
- Conduct annual training sessions for contractors and city staff.

#### **Evaluation:**

- Track and report the dates that the training classes are held and the list of attendees.

### **BMP 3.07 Written Procedures**

The city will develop and maintain written procedures for requiring construction BMPs for small and large construction activities.

#### **Measurable Goals:**

- Develop and maintain written procedures for implementing the BMPs for construction activities.

## **3.4 MCM 4: Post Construction Stormwater Management in New Development and Redevelopment**

### *General Permit Requirement: **Part B.4.(a)***

*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.*

### **3.4.1 Current Programs**

The city's current post construction stormwater management practices include the requirement for site revegetation following construction.

### **3.4.2 Best Management Practices**

#### **BMP 4.01 Post Construction Stormwater Management Legal Authority**

The city will conduct a review of the city's legal authority to require and inspect post construction storm water management of new development and redevelopment construction projects using structural and non-structural BMPs.

#### **Measurable Goals:**

- Review and update the city's current development code for requirements for post-construction maintenance of BMPs for new development and redevelopment construction sites of 1 acre or more, and in projects of less than 1 acre that are part of a larger common plan of development, redevelopment, or sale.

#### **BMP 4.02 Long-Term Maintenance of Post Construction Stormwater Control Measures**

The city will review the city's legal authority to require long-term maintenance and operation of structural storm water control measures by a) city maintenance, or b) maintenance agreement with property owners.

##### **Measurable Goals:**

- Establish the criteria and procedures through which the city may consider acceptance of structural stormwater control measures for city maintenance.
- Establish the criteria and procedures for approval of the continuing maintenance of structural stormwater control measures.

#### **BMP 4.03 Post-Construction Site Inspection and Project Acceptance**

The city will review, update, and implement project acceptance procedures to address Post Construction Storm Water Management for new development and re-development.

##### **Measurable Goals:**

- Post construction inspection of private construction sites for revegetation OR maintenance bond OR deferred landscape agreement.

#### **BMP 4.04 Written Procedures**

The city will develop and maintain written procedures for the city's program for requiring post-construction BMPs for small and large construction activities.

##### **Measurable Goals:**

- Develop and maintain written procedures for implementing the BMPs for new development and redevelopment.

### **3.5 MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations**

*General Permit Requirement: **Part B.5.(a)***

*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.*

### **3.5.1 Best Management Practices**

#### **BMP 5.01 Municipal Facilities and Stormwater Control Inventory**

The city will inventory and map city-owned and operated facilities and stormwater controls. The pollutant discharge potential of each facility will be assessed as a part of this inventory.

##### **Measurable Goals:**

- Inventory all municipal facilities and storm water controls.
- Map municipal facilities and storm water controls inventoried.
- Assess the pollutant discharge potential of each facility.
- Document the results of the assessment.

#### **BMP 5.02 Training and Education**

The city will develop and implement an employee training program that addresses stormwater quality issues, pollution prevention, and good housekeeping procedures for city operations.

##### **Measurable Goals:**

- Develop a list of departments/divisions and employee positions to be trained in implementing pollution prevention and good housekeeping practices.
- Develop a training program, including materials and internal reporting forms and procedures.
- Develop a training schedule and conduct training of identified personnel.
- Conduct training for new and additional employees.

#### **BMP 5.03 Contractor Requirements and Oversight**

The city will initiate contractual requirements in city maintenance contracts that require contractors to comply with Pollution Prevention & Good Housekeeping BMPs adopted by the city.

**Measurable Goals:**

- Identify maintenance services performed by contractors.
- Draft contract provisions that establish contractual requirements for compliance with Pollution Prevention and Good Housekeeping practices and facility-specific stormwater management operating procedures.
- Implement contract requirements in new contracts and by amendment to existing contracts.

**BMP 5.04 High Priority Facility-Specific SOPs**

High Priority Facilities are defined in the general permit as those facilities with a high potential to generate stormwater pollutants. The city will identify city-owned high priority facilities and implement stormwater controls at those facilities.

**Measurable Goals:**

- Develop facility-specific SOPs that identify BMPs to be installed, implemented, and maintained.
- Maintain a hard or electronic copy of each facility-specific SOP.
- Develop and implement a program of periodic inspections of high priority facilities and document the results of the inspections.

**BMP 5.05 High Priority Facility Storm Water Controls**

The city will implement stormwater controls at high priority facilities.

**Measurable Goals:**

- Establish general good housekeeping procedures.
- Develop Spill Prevention and Response Plans for vehicle and equipment fueling and maintenance locations.
- Develop Spill Prevention and Response Plans for vehicle & equipment fueling and maintenance locations.

**BMP 5.06 City Operations Assessment**

Evaluate operations and maintenance (O&M) activities for potential to discharge pollutants.

**Measurable Goals:**

- Evaluate pavement repair and maintenance operations.
- Develop procedures and documentation for inspection of pollution prevention measures at city-owned facilities.
- Perform inspections of pollution prevention measures at city owned and operated facilities.

**BMP 5.07 Stormsewer System O&M**

The city will develop, document, and implement an O&M program to reduce the accumulation of pollutants in stormsewers, catch basins and other surface drainage structures.

**Measurable Goals:**

- Develop a stormsewer waste material disposal standard operating procedure (SOP).
- Develop written procedures and documentation for periodic inspection and cleaning of catch basins.
- Continue city's Storm Sewer Maintenance Program for inspection and cleaning of inlets and storm sewers.
- After completion of the stormsewer system map (BMP 2.01), identify areas for increased inspection to detect accumulations of sediment and debris or illegal dumping.

**BMP 5.08 Street Sweeping**

The city presently operates a program of street sweeping for streets of each classification. The city will continue the street sweeping program to reduce accumulations of sediment and litter on city streets.

**Measurable Goals:**

- Continue sweeping up to 310 lane miles of arterials; collectors; and residential streets each year.
- After areas of sediment/debris accumulation have been identified (BMP 5.07), increased sweeping of those areas will be conducted.

**BMP 5.09 Post Construction Site Inspection and Project Acceptance**

The city will review, update, and implement project acceptance procedures to address Post Construction Stormwater Management for public infrastructure projects.



**Measurable Goals:**

- Continue to conduct warranty inspections of public infrastructure projects for conformance with contract specifications for revegetation.
- Continue to conduct post construction inspection of private construction sites for revegetation OR maintenance bond OR deferred landscape agreement.

**BMP 5.10 Waterway Litter Removal**

The city removes underwater litter removal on a quarterly basis from the San Marcos River from City Park downstream to Thompsons Island and for short distances upstream along key river tributaries.

**Measurable Goals:**

- Conduct quarterly underwater litter removals downstream of City Park to Thompson's Island.
- Conduct quarterly litter pickups in tributaries to the San Marcos River.

## **Appendix A – List of BMPs by MCM**

# Appendix B – Phase II Permit Notice of Intent (NOI)

## **Appendix C – TPDES General Permit TXR040000**

# Appendix D – Annual Report Form and Checklist

# Appendix E – Year 1 Annual Report

## **Appendix F – Year 2 Annual Report**

## **Appendix G – Year 3 Annual Report**



# Appendix H – Year 4 Annual Report

# Appendix I – Year 5 Annual Report