

THE CITY OF KIRBY

Storm Water Management Plan

MS4 Annual Report

Permit Year 3



TPDES Permit No. TXR040086

Submitted By:



515 Busby Drive, Suite 101
San Antonio, Texas 78209

Project No. KIRBY-001
April 22, 2022



515 Busby Drive, San Antonio, Texas 78209
TBPE No. F-2573

April 22, 2022
City of Kirby
TXR040086
TCEQ Region 13

April 22, 2022

Texas Commission on Environmental Quality
Stormwater & Pretreatment Team Leader (MC-148)
P.O. Box 13087
Austin, TX 78711-3087

Re: Phase II MS4 Annual Report Transmittal for the City of Kirby
TPDES Authorization: TXR040086
Our Project No. KIRBY-001

Dear Team Leader:

This letter serves to transmit the required annual report for the Texas Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit, Authorization Number TXR040086 for the City of Kirby.

The annual report is for Year 3. The reporting period's beginning 01/24/2021 and ending 01/23/2022.

A separate Notice of Change has not been submitted based on the fact that changes have not been proposed for the next permit year.

As required by the general permit, a copy of the report has been mailed to the TCEQ's regional office 13 in San Antonio, Texas.

Sincerely,

Abraham Galindo, Storm Water Compliance Specialist
Givler Engineering, Inc.

Phase II (Small) MS4 Annual Report Form

TPDES General Permit Number TXR040000

A. General Information

Authorization Number: TXR040086

Reporting Year (year will be either 1, 2, 3, 4, or 5): 3

Annual Reporting Year Option Selected by MS4:

Calendar Year: _____

Permit Year: X

Fiscal Year: _____ Last day of fiscal year: (_____) _____

Reporting period beginning date: (month/date/year) 01/24/21

Reporting period end date (month/date/year) 01/23/22

MS4 Operator Level: 1 Name of MS4: _____ City of Kirby _____

Contact Name: Abraham Galindo Telephone Number: (210) 342-3991 ext. 225

Mailing Address: 515 Busby Drive, San Antonio, TX 78209

E-mail Address: galindo@givlerengineering.com

A copy of the annual report was submitted to the TCEQ Region: YES X NO _____

Region the annual report was submitted to: TCEQ Region 13

B. Status of Compliance with the MS4 GP and SWMP

1. Provide information on the status of complying with permit conditions:
(TXR040000 Part IV.B.2)

	Yes	No	Explain
Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ.	X		Permittee has maintained compliance with the SWMP submitted to TCEQ. SWMP is pending TCEQ approval.

Permittee is currently in compliance with recordkeeping and reporting requirements.	X		Permittee has maintained all records and meets all reporting requirements.
Permittee meets the eligibility requirements of the permit (e.g., TMDL requirements, Edwards Aquifer limitations, compliance history, etc.).	X		Permittee continues to meet all eligible requirements of the MS4 permit.
Permittee conducted an annual review of its SWMP in conjunction with preparation of the annual report	X		Permittee has conducted an annual review of its SWMP in conjunction with preparation of the annual report.

2. Provide a general assessment of the appropriateness of the selected BMPs. You may use the table below to meet this requirement (**see Example 1 in instructions**):

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
1	1.1 NOI and NOC Public Comment	Yes, a copy of the SWMP is maintained at the front desk of city hall for public access.
1	1.2 Recurring Public Comment	Yes, city council meetings were agendaized each month with time for citizens to comment, which could be used to discuss any storm water issues or questions.
1	1.3 Brochures and Fact Sheets	Yes, the city raises awareness of storm water pollution prevention, improvement, and preservation of storm water quality.
1	1.4 Household Hazardous Waste	Yes, residents can contact the County's Household Hazardous Waste Contractor to schedule an at home pickup. This is a service the county offers residents to make it easy to properly dispose of potentially hazardous materials, hence reducing pollution in stormwater.

1	1.5 Stormwater Website	Yes, the stormwater website is an effective communication tool providing a continual means to share and exchange information to anyone seeking knowledge regarding the stormwater management program.
1	1.6 Storm Drain Marking	Yes, storm drain markings help the public easily identify their location and raises awareness that runoff carried discharges untreated into local streams.
1	1.7 Stormwater Public Awareness Survey	Yes, the public's comments help us identify sources of storm water pollution throughout the city and keep them engaged in promoting storm water quality.
2	2.1 Storm Sewer Map	Yes, the MS4 map shows the location of each outfall and the names and locations that discharge into the waters of the U.S.
2	2.2 Illicit Discharge Detection Plan	Yes, this plan helps us identify sources of pollution using regularly scheduled observations.
2	2.3 Illicit Discharge and Dumping Hotline	Yes, concerns reported to the hotline allow for quick response to illegal discharges and complaints.
2	2.4 Illicit Discharge Ordinance Update	Yes, this ordinance helps the city provide the health, safety, and general welfare of the public and the city through regulating the discharge of pollutants.
3	3.1 Technical Manual for Construction Runoff	Yes, the manual explains appropriate storm water controls for construction sites and gives guidance for alternative solutions.
3	3.2 Site Plan Review Program	Yes, program reviews site plans and determines proper measures during construction procedures are incorporated in order to control erosion, sedimentation, and other sources of storm water pollution.
3	3.3 Construction Site Inspection Program	Yes, through periodic inspections, this program helps construction sites to remain in compliance and reduce sources of pollution.

3	3.4 Construction Runoff Hotline	Yes, concerns reported to the hotline allow for quick response to illegal discharges and complaints regarding construction activities.
3	3.5 Construction Storm Water Management Ordinance Update	Yes, this ordinance establishes requirements for contractors to reduce pollutants in storm water runoff.
3	3.6 City Staff Training and Development	Yes, training focused on storm water BMPs helps grow knowledge and improve level of awareness.
4	4.1 Technical Manual for Post-Construction Runoff	Yes, the manual explains appropriate storm water controls and provides developers and contractors guidance on pollutant controls and proper maintenance criteria for long-term stabilization.
4	4.2 Site Plan Review Program for Post-Construction Runoff	Yes, site plans submitted to the city are reviewed by the city's storm water consultant, who provides recommendations to enhance post-construction runoff controls, as necessary.
4	4.3 Long-Term Inspection and Maintenance Plan for Post-Construction Runoff	Yes, the city's storm water consultant will perform annual inspections and determine if maintenance is required for all completed construction sites to ensure compliance with post-construction storm water management control requirements.
4	4.4 Post Construction Storm Water Management Ordinance Update	Yes, the ordinance helps establish requirements for storm water quality controls and implement long-term inspection and maintenance requirements.
5	5.1 Municipal Employee Pollution Prevention Manual	Yes, this manual informs current and new city employees on proper handling procedures and specifies methods used to reduce the potential for pollution.
5	5.2 Municipal Employee Training and Education	Yes, city employees who handle processes which may impact storm water quality receive an introduction to pollution prevention and tips on maintaining good housekeeping practices in their facility.

5	5.3 Street Sweeping	Yes, street sweeping is an effective way to prevent pollutants from entering storm drains, watersheds, and rivers, while keeping streets and gutters looking great.
5	5.4 Pest Management Program	Yes, this program has been established to address insect problems and provides guidance on the safety and training requirements related to the pesticide application.
5	5.5 Disposal of Waste Materials	Yes, the city reviews waste disposal procedures and process for both solid waste and hazardous materials to ensure they are properly disposed of. The city also reminds its staff annually through employee training.
5	5.6 Contractor Oversight Procedures	Yes, the city requires its contractors to ensure that they use appropriate storm water control measures and operating procedures.
5	5.7 Inventory of Facilities and Stormwater Controls	Yes, inventory of facilities and storm water controls help identify high priorities that have the potential to generate storm water pollutants.
5	5.8 Assessment of Operations and Maintenance Activities	Yes, through assessment of the City's operations and maintenance activities, we can identify pollutants of concern and implement measures to reduce the discharge of pollutants.

3. Describe progress towards achieving the goal of reducing the discharge of pollutants to the MEP. If no progress was made or the BMP did not result in a reduction in pollutants, provide an explanation. Use the table below to meet this requirement (**see Example 2 in instructions**):

MCM	BMP	Information Used & Quantity/Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
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1	1.1 NOI and NOC Public Comment	Provide one opportunity for residents to comment on executive director's comments to the NOI and NOC's.	No. Though this BMP does not result in a direct reduction of pollutants, the public has the opportunity to participate and feedback on all public notices.
1	1.2 Recurring Public Comment	Provide opportunities each month for public comment during city council meetings.	No. Pollutants will be reduced over time as citizens participate and provide feedback on the SWMP.
1	1.3 Brochures and Fact Sheets	Issue two newsletters each year.	No. Though this BMP does not result in a direct reduction of pollutants, educating the citizens will eventually reduce litter, hence pollutants.
1	1.4 Household Hazardous Waste	Provide 1 opportunity for residents to dispose of household hazardous waste.	Yes. This service makes it easy for resident to properly dispose of potentially hazardous materials, hence reducing pollution in stormwater.
1	1.5 Stormwater Website	Record copies of all informational material updated.	No. Though this BMP does not result in a direct reduction of pollutants, educating the citizens will eventually reduce litter, hence pollutants.
1	1.6 Storm Drain Marking	Inspect 50% of storm drains markings.	No. Markers on storm drains serve as a visual reminder that will reduce pollutants over time.
1	1.7 Stormwater Public Awareness Survey	Distribute 100 surveys.	Yes. When citizens identify illicit discharges, immediate action can be taken to remove the pollutant and track the source.

2	2.1 Storm Sewer Map	Update map one time.	No. Though this BMP does not result in a direct reduction of pollutants, the map shows the location of each outfall.
2	2.2 Illicit Discharge Detection Plan	Inspect 8 IDDE Zones.	Yes. When illicit discharges are observed, immediate action can be taken to remove pollutants and track the source.
2	2.3 Illicit Discharge and Dumping Hotline	Maintain hotline on an ongoing basis.	Yes. When illicit discharges are reported, immediate action can be taken to remove pollutants and track the source.
2	2.4 Illicit Discharge Ordinance Update	Review and update ordinance one time.	No. Though this BMP does not result in a direct reduction of pollutants, the ordinance sets city standards.
3	3.1 Technical Manual for Construction Runoff	Review technical manual one time.	No. By continuously updating the technical manual it allows us to refine contractor guidelines and stormwater controls measures to directly reduce pollutants from construction sites.
3	3.2 Site Plan Review Program	Review 100% of site plans and storm water pollution prevention plans for proposed construction.	No. Though this BMP does not result in a direct reduction of pollutants, reviewing plans confirms proper measures are incorporated into construction procedures and reduce sources of storm water pollution.
3	3.3 Construction Site Inspection Program	Inspect 100% of active construction sites for sources of storm water pollution.	Yes. By inspecting construction sites, we can evaluate if proper BMPs are installed to effectively reduce sediment discharge and erosion.

3	3.4 Construction Runoff Hotline	Maintain hotline on an ongoing basis.	Yes. When illicit discharges are reported, immediate action can be taken to remove the pollutant and track the source.
3	3.5 Construction Storm Water Management Ordinance Update	Review and update ordinance one time, if needed.	No. Though this BMP does not result in a direct reduction of pollutants, enforcing requirements and procedures established by this ordinance will eventually reduce pollutants entering stormwater runoff.
3	3.6 City Staff Training and Development	Attend one training regarding stormwater.	Yes. Trainings review the use of appropriate stormwater control measures and operating procedures that will eventually reduce sediment and pollutants.
4	4.1 Technical Manual for Post-Construction Runoff	Review and update manual one time, if needed.	No. Though this BMP does not result in a direct reduction of pollutants, continuously refining contractor guidelines will eventually reduce sediment and pollutants.
4	4.2 Site Plan Review Program for Post-Construction Runoff	Review 100% of site plans submitted.	No. By reviewing plans submitted, we can evaluate if proper post-construction BMPs are needed to reduce sediment discharge and erosion.
4	4.3 Long-Term Inspection and Maintenance Plan for Post-Construction Runoff	Review 100% of long-term inspection and maintenance plans.	Yes. By inspecting post-construction runoff, we can monitor the quality of runoff and take swift action to remove any pollutants.

4	4.4 Post-Construction Storm Water Management Ordinance Update	Review and update the ordinance one time.	No. Though this BMP does not result in a direct reduction of pollutants, enforcing requirements and procedures established by this ordinance will eventually reduce pollutants entering stormwater runoff.
5	5.1 Municipal Employee Pollution Prevention Manual	Review technical manual for new changes to accepted practices and regulations one time.	No. Though this BMP does not result in a direct reduction of pollutants, educating municipal employees will eventually reduce possible stormwater pollution impacts.
5	5.2 Municipal Employee Training	Train city employees on pollution prevention techniques one time.	No. Though this BMP does not result in a direct reduction of pollutants, educating municipal employees will eventually reduce pollutants from various municipal operations.
5	5.3 Street Sweeping	Develop and implement street sweeping procedures one time.	Yes. Street sweeping is an effective way to prevent pollutants from entering storm drains, watersheds, and rivers, while keeping streets and gutters looking great.
5	5.4 Pest Management Program	Develop and implement pest management program procedures one time.	Yes. Helps promote Best Management Practices (BMPs) used to solve pest problems while minimizing risks to people and the environment.
5	5.5 Disposal of Waste Materials	Review municipal solid and hazardous waste disposal procedures one time.	Yes. By evaluating proper disposal of solid waste and hazardous materials, immediate action can be taken to remove pollutants.

5	5.6 Contractor Oversight Procedures	Review contractor oversight procedures one time.	Yes. By inspecting contractor procedures, we can evaluate if contractors are taking the proper measures to reduce pollution in the MS4.
5	5.7 Inventory of Facilities and Stormwater Controls	Review inventory of facilities and stormwater controls one time.	No. Though this BMP does not result in a direct reduction in pollutants, developing an inventory of the city facilities and controls helps prioritize facilities containing pollutants and identify poor housekeeping practices, and discharge of pollutants, hence reducing pollutants.
5	5.8 Assessment of Operations and Maintenance Activities	Evaluate 5 municipal operation and maintenance activities.	Yes. By inspecting city operations and maintenance activities, we can evaluate if proper measures are being taken to reduce pollution in the MS4.

4. Provide the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals (**see Example 3 in instructions**):

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
1	1.1 SWMP and NOI were made available for public review	Met goal – made the City’s SWMP available to residents for review.
1	1.2 Provide 12 opportunities for the public to comment in city council meetings	Met goal – provided opportunities 12 out of 12 months for the public to address council.

1	1.3 Issue 2 brochures or fact sheets each year	Met goal – issued 2 articles to the public pertaining to storm water pollution.
1	1.4 Provide one opportunity for residents to dispose of household hazardous waste each year	Met goal – resident can contact the county for assistance with household hazardous waste disposal. No collections during reporting period.
1	1.5 Update informational material on stormwater webpage one time each year	Did not meet goal – the stormwater website will be updated during permit year 4.
1	1.6 Survey 50% of storm drain markings every two years, in even numbered years	N/A – storm drain markers will be surveyed during permit year 4.
1	1.7 Issue 100 stormwater public awareness surveys every two years, in odd numbered years	Exceeded goal – received feedback from 223 residents.
2	2.1 Update storm sewer map every two years, in even numbered years	N/A – map will be updated during permit year 4.
2	2.2 Inspect 8 zones each year	Met goal – inspected 8 of 8 zones for illicit discharges.
2	2.3 Inspect 100% of complaints received	Met goal – inspected 1 of 1 illicit discharge detected through BMP 2.2.
2	2.4 Review Illicit Discharge Ordinance during permit year 3	Did not meet goal – ordinance is being reviewed and will be updated during permit year 4.
3	3.1 Review technical manual for construction runoff during permit year 3	Met goal – technical manual for construction runoff was reviewed and updated.
3	3.2 Review 100% of site plans submitted	Met goal – reviewed 1 of 1 site plan submitted.
3	3.3 Inspect 100% of active sites	Met goal – inspected 100% - 1 of 1 construction site each month.

3	3.4 Inspect 100% of complaints received	Met goal – maintained construction runoff hotline. No complaints were reported.
3	3.5 Review storm water construction ordinance during permit year 3	Did not meet goal – ordinance is being reviewed and will be updated during permit year 4.
3	3.6 Attend one training each year	Exceeded Goal – attended 3 stormwater trainings during reporting period.
4	4.1 Review technical manual for post-construction runoff during permit year 3	Met goal – technical manual for post-construction runoff was reviewed and updated.
4	4.2 Review 100% of site plans for post-construction runoff each year	Met goal – reviewed 1 out of 1 site plan submitted.
4	4.3 Review 100% of long-term inspection & maintenance plans each year	N/A – no construction sites applicable for long-term inspection.
4	4.4 Review storm water post-construction ordinance during permit year 3	Met goal – ordinance was reviewed during reporting period. No updates were necessary.
5	5.1 Review municipal employee pollution prevention manual each year	Met goal – manual was reviewed during reporting period. No updates were necessary.
5	5.2 Conduct one municipal employee training each year	Did not meet goal – training material is being updated. Municipal employees will be trained during permit year 4.
5	5.3 Review street sweeping procedures during permit year 3	Met goal – street sweeping procedures were reviewed during reporting period. No updates were necessary.
5	5.4 Review pest management procedures during permit year 3	Met goal – pest management procedures were reviewed during reporting period. No updates were necessary.

5	5.5 Review disposal of waste material procedures each year	Met goal – disposal of waste material procedures were reviewed during reporting period. No updates were necessary.
5	5.6 Review contractor oversight procedures each year	Met goal – contractor oversight procedures were reviewed during reporting period. No updates were necessary.
5	5.7 Review inventory of facilities and stormwater controls each year	Met goal – reviewed city inventory of facilities and stormwater controls. No updates were needed.
5	5.8 Evaluate 5 municipal operations and maintenance activities	Did not meet goal – assessed 2 out of 5 maintenance activities performed.

C. Stormwater Data Summary

Provide a summary of all information used, including any lab results (if sampling was conducted) to assess the success of the SWMP at reducing the discharge of pollutants to the MEP. For example, did the MS4 conduct visual inspections, clean the inlets, look for illicit discharge, clean streets, look for flow during dry weather, etc.?

It has been determined that all current BMPs selected for the SWMP are appropriate against reducing the discharge of pollutants entering storm water. Monitoring includes periodic observation of the City's storm water features in accordance with the schedule set forth in the IDDE Plan (BMP 2.2). As a result of the implementation of these BMP's, a minimal quantity and frequency of pollutants in storm water discharges has been noted and documented.

D. Impaired Waterbodies

1. Identify whether an impaired water within the permitted area was added to the latest EPA-approved 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d). List any newly-identified impaired waters below by including the name of the water body and the cause of impairment.

The latest EPA-approved 303(d) list does not identify any new impaired waters were added within the permitted area.

2. If applicable, explain below any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4's BMPs used to address the pollutant of concern.

N/A

3. Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL.

N/A

4. Report the benchmark identified by the MS4 and assessment activities:

Benchmark Parameter (Ex: Total Suspended Solids)	Benchmark Value	Description of additional sampling or other assessment activities	Year(s) conducted
N/A	N/A	N/A	N/A

5. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark:

Benchmark Parameter	Selected BMP	Contribution to achieving Benchmark
N/A	N/A	N/A

6. If applicable, report on focused BMPs to address impairment for bacteria:

Description of bacteria-focused BMP	Comments/Discussion
N/A	N/A

7. Assess the progress to determine BMP's effectiveness in achieving the benchmark.

For example, the MS4 may use the following benchmark indicators:

- number of sources identified or eliminated;
- number of illegal dumpings;
- increase in illegal dumping reported;
- number of educational opportunities conducted;
- reductions in sanitary sewer flows (SSOs); /or
- increase in illegal discharge detection through dry screening.

Benchmark Indicator	Description/Comments
N/A	N/A

E. Stormwater Activities

Describe activities planned for the next reporting year:

Attached is an important schedule summary indicating all storm water activities which are currently planned for the upcoming plan year. MS4 will implement new SWMP submitted to TCEQ.

F. SWMP Modifications

1. The SWMP and MCM implementation procedures are reviewed each year.

☒ Yes ☐ No

2. Changes have been made or are proposed to the SWMP since the NOI or the last annual report, including changes in response to TCEQ's review.

☒ Yes ☐ No

If "Yes," report on changes made to measurable goals and BMPs:

Please see attached report on changes that were made to the SWMP.

Note: If changes include additions or substitutions of BMPs, include a written analysis explaining why the original BMP is ineffective or not feasible, and why the replacement BMP is expected to achieve the goals of the original BMP.

3. Explain additional changes or proposed changes not previously mentioned (i.e. dates, contacts, procedures, annexation of land, etc.).

N/A

G. Additional BMPs for TMDLs and I-Plans

Provide a description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans.

Based on monitoring data, it has been determined that current BMPs implemented under the SWMP are adequate to ensure compliance with all applicable TMDL's and implementation plans. No additional BMPs are necessary at this time. This determination will continually be reviewed and assessed on an annual basis, and BMPs will be added or amended at that time if the need for additional or modified BMPs is necessary to ensure compliance with all applicable TMDL's and implementation plans.

H. Additional Information

1. Is the permittee relying on another entity to satisfy any permit obligations?

____ Yes X No

If "Yes," provide the name(s) of other entities and an explanation of their responsibilities (add more spaces or pages if needed).

Name and Explanation: N/A

Name and Explanation: N/A

Name and Explanation: N/A

Name and Explanation: N/A

- 2.a. Is the permittee part of a group sharing a SWMP with other entities?

____ Yes X No

2.b. If "yes," is this a system-wide annual report including information for all permittees?

☐ Yes ☒ No

If "Yes," list all associated authorization numbers, permittee names, and SWMP responsibilities of each member (add additional spaces or pages if needed):

Authorization Number: N/A

Permittee: N/A

Authorization Number: N/A

Permittee: N/A

Authorization Number: N/A

Permittee: N/A

Authorization Number: N/A

Permittee: N/A

I. Construction Activities

1. The number of construction activities that occurred in the jurisdictional area of the MS4 (Large and Small Site Notices submitted by construction site operators):

1

- 2a. Does the permittee utilize the optional seventh MCM related to construction?

☐ Yes ☒ No

- 2b. If "yes," then provide the following information for this permit year:

The number of municipal construction activities authorized under this general permit	
The total number of acres disturbed for municipal construction projects	N/A

Note: Though the seventh MCM is optional, implementation must be requested on the NOI or on a NOC and approved by the TCEQ.

J. Certification

If this is this a system-wide annual report including information for all permittees, each permittee shall sign and certify the annual report in accordance with 30 TAC §305.128 (relating to Signatories to Reports).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (printed): Monique L. Vernon Title: City Manager
Signature:  Date: 4/18/2022

Name of MS4 City of Kirby

If you have questions on how to fill out this form or about the Stormwater Permitting program, please contact us at 512-239-4671.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

Kirby Comprehensive Schedule for Storm Water Management Plan Implementation Program

BMP No.	Scheduling Item	Year 1			Year 2			Year 3			Year 4			Year 5		
		Jan 24, 2019	Jul 23, 2019	Oct 31, 2019	Jan 23, 2020	Apr 23, 2020	Jul 23, 2020	Oct 23, 2020	Jan 23, 2021	Apr 23, 2021	Jul 23, 2021	Oct 23, 2021	Jan 23, 2022	Apr 23, 2022	Jul 23, 2022	Oct 23, 2022
	TCEQ issued TPDES General Permit No. TXR040000															
	Deadline Submittal Date for City NOI and SWMP IP															
1.1	NOI and NOC Public Comment ***															
1.2	Recurring Public Comment															
1.3	Brochures and Fact Sheets															
1.4	Household Hazardous Waste															
1.5	Stormwater Website															
1.6	Storm Drain Marking															
1.7	Stormwater Public Awareness Survey															
2.1	Storm Sewer Map															
2.2	Illicit Discharge Detection Plan															
2.3	Illicit Discharge and Dumping Hotline															
2.4	Illicit Discharge Ordinance															
3.1	Technical Manual for Construction Runoff															
3.2	Site Plan Review Program															
3.3	Construction Site Inspection Program															
3.4	Construction Runoff Hotline															
3.5	Construction Storm Water Management Ordinance															
3.6	City Staff Training and Development															
4.1	Technical Manual for Post-Construction Runoff															
4.2	Site Plan Review Program for Post-Construction Runoff															
4.3	Long-Term Insp. and Maint. Plan for Post-Const. Runoff															
4.4	Post-Construction Storm Water Management Ordinance															
5.1	Municipal Employee Pollution Prevention Manual															
5.2	Municipal Employee Training and Education															
5.3	Street Sweeping															
5.4	Pest Management Program															
5.5	Disposal of Waste Materials															
5.6	Contractor Oversight Procedures															
5.7	Inventory of Facilities and Stormwater Controls															
5.8	Assessment of Operations and Maintenance Activities															
	Deadline for Implementing SWMP															



515 Busby Drive, Suite 101
San Antonio, Texas 78209

Milestone Date Established by TCEQ

Planning and/or Study to Prepare for Implementation

Measurable Goal Deadline

*** Exact scheduling for this item is not controlled by the city. The schedule for this item represents an educated guess rather than a commitment.



Storm Water Management Plan

Implementation Program

Level 1 Operator
TXR040086

Prepared by:



515 Busby Drive, San Antonio, Texas 78209
(210) 342-3991

Project No. KIRBY-001

July 2019
Revised July 2021



Storm Water Management Plan

Implementation Program



515 Busby Drive
San Antonio, Texas 78209
(210) 342-3991

Project No. KIRBY-001

July 2019
Revised July 2021

Storm Water Management Plan Implementation Program

<u>Section Description</u>	<u>Location</u>
Overview	Page 1
Minimum Control Measure No. 1: Public Education, Outreach, and Involvement	Tab 1
Minimum Control Measure No. 2: Illicit Discharge Detection and Elimination (IDDE) Maps Photos	Tab 2
Minimum Control Measure No. 3: Construction Site Stormwater Runoff Control	Tab 3
Minimum Control Measure No. 4: Post-Construction Stormwater Management in New Development and Redevelopment	Tab 4
Minimum Control Measure No. 5: Pollution Prevention and Good Housekeeping for Municipal Operations	Tab 5
Minimum Control Measure No. 6: Industrial Stormwater Sources	Tab 6
Minimum Control Measure No. 7: Authorization for Construction Activities where the Small MS4 is the Site Operator	Tab 7
Comprehensive Schedule	Tab 8
Receiving Waters of Impaired Quality Appearing on the Clean Water Act § 303(d) List	Tab 9
Definitions and Acronyms	Tab 10

Overview

The Federal Water Pollution Control Act was passed in 1972. After the law was amended in 1977, it became commonly known as the Clean Water Act¹. The Act established the structure for federal regulation of pollutant discharges into the waters of the United States, authorized the Environmental Protection Agency (EPA) to implement pollution control programs, extended the requirement to establish standards for surface water contaminants, and made it unlawful to discharge unpermitted point source pollutants into navigable waters. The Act also established funding for construction of sewage treatment plants and promoted planning to address non-point source pollution. In order to reduce storm water pollution, amendments were made to the Clean Water Act in 1987, requiring storm water discharges to be permitted in two phases.

Phase 1 applied, among other things, to larger cities with separate storm water sewer systems. The regulations required those cities to obtain National Pollutant Discharge Elimination System (NPDES) permits. The permit process imposed controls on the cities to reduce pollution in storm water discharges.

Phase 2 applies to smaller cities. In 1999, the EPA issued final regulations for Phase 2. The Texas Commission on Environmental Quality (TCEQ) issued the original Texas Pollutant Discharge Elimination System (TPDES) General Permit Number TXR040000 (General Permit) for Phase 2 Storm Water on August 13, 2007 in order to create a mechanism for non-Phase 1 Texas cities with populations of over 1,000 to come into compliance with the federal regulations. The TCEQ renewed the original permit for an additional 5-Year term on January 24, 2019.

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.

The SWMP must also be implemented and enforced in new MS4 areas added during the permit term. Implementation of appropriate BMPs for the new areas must occur in accordance with Part II.E.7.

A permittee that implements BMPs 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 December 13, 2013.

¹ Current efforts to reduce the pollution found in municipal storm water discharges are substantially driven by federal legislation. As expected with government programs, there are many special terms and acronyms that apply to the topic of storm water pollution. Therefore, a list of definitions from the TPDES General Permit is provided behind Tab 9.

The process of applying for coverage under and maintaining conformance to the renewal General Permit begins with submitting two documents to the TCEQ. The first document is a form provided by the TCEQ, called a Notice of Intent (NOI). The second document is this document, which you are reading. It is the proposed Implementation Program for the Storm Water Management Plan (SWMP).

The Implementation Program for the SWMP proposes to reduce storm water pollution by increasing the city's control of pollution sources. The Implementation Program provides maps (see Tab 2) and photos (see Tab 2), which identify many of the points where storm water is discharged from the city to other municipalities.

The plan must be fully implemented within 5 years of the TCEQ's issuance of the General Permit. The general schedule is as shown:

- | | |
|--------------------------|---|
| August 13, 2007 | The TCEQ issued the original Phase 2 General Permit. |
| July 23, 2019 | Submit original NOI and SWMP Implementation Program to the TCEQ. |
| December 13, 2018 | The previous SWMP was fully implemented. |
| January 24, 2019 | The TCEQ issued the renewal General Permit. |
| July 23, 2019 | Submit new NOI and a new SWMP to the executive director. <ol style="list-style-type: none">1. After the applicant receives written instructions from the TCEQ's Office of Chief Clerk, the applicant must publish notice of the executive director's preliminary decision on the NOI and SWMP.2. The notice will include the following information, at a minimum:<ol style="list-style-type: none">(1) The legal name of the MS4 operator;(2) Indication of whether the NOI is for a new authorization or is a renewal of an existing authorization;(3) The address of the applicant;(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.
3. Publish notice of the executive director's preliminary determination on the NOI and SWMP at least once in a newspaper of general circulation in the municipality or county where the small MS4 is located. 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 (equivalent to a "public hearing" as required by 40 CFR §122.28(d)(2)(ii)) will be held if the TCEQ determines that there is significant public interest.
4. 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 6 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.
5. If significant public interest exists, the executive director will direct the applicant to publish a notice of the public meeting and to hold the public meeting. The applicant shall 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.
6. If a public meeting is held, the applicant shall describe the contents of the NOI and SWMP. The applicant shall also provide maps and other data on the small MS4. The applicant shall 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.
7. The applicant shall 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.
8. 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.
9. Persons whose names and addresses appear legibly on the sign-in sheet from the public meeting and persons who submitted written comments to the TCEQ will be notified by the TCEQ's Office of Chief Clerk of the executive director's decision regarding the authorization.

January 23, 2024

The renewal SWMP must be fully implemented.



A detailed, comprehensive schedule for the Implementation Program is provided behind Tab 7 of this document.

The Implementation Program proposes the means to develop, to implement, and to enforce a plan to reduce the discharge of pollutants to the maximum extent practicable (MEP). It identifies seven Minimum Control Measures (MCMs), which are required to be addressed by the General Permit:

1. **Public Education, Outreach, and Involvement** – Distribute educational materials and/or provide presentations to inform citizens about storm water pollution, and provide opportunities for citizens to participate in program development and implementation. See Tab 1.
2. **Illicit Discharge Detection and Elimination (IDDE)** – Detect and eliminate illicit discharges to the city's storm sewer system. See Tab 2.
3. **Construction Site Stormwater Runoff Control** – Control erosion and sediment in non-municipal construction activities. See Tab 3.
4. **Post-Construction Stormwater Management in New Development and Redevelopment** – Control pollutant discharges from new development and redevelopment areas. See Tab 4.
5. **Pollution Prevention and Good Housekeeping for Municipal Operations** – Prevent or reduce pollutant runoff from municipal operations. See Tab 5.
6. **Industrial Stormwater Sources (applicable to Level 4 MS4's)** – Identify and control pollutants in stormwater discharges to the MS4. See Tab 6
7. **Authorization for Construction Activities where the Small MS4 is the Site Operator** (optional) – Control erosion and sedimentation on municipal projects. See Tab 7.

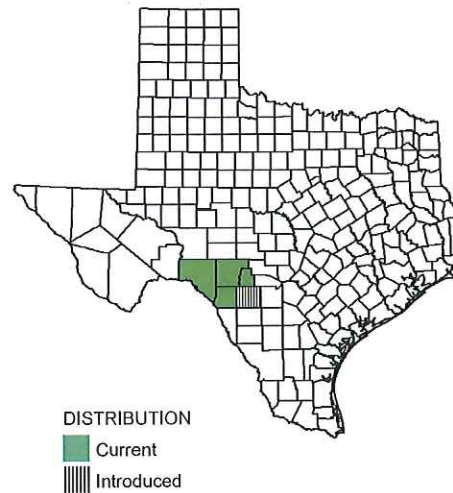
The Implementation Program describes each Minimum Control Measures (MCM) with measurable goals, including, as appropriate, the months and years when the permittee will undertake required actions, including interim milestones and the frequency of the action for each MCM described in Part III, Section B. A summary of written procedures describing how the permittee will implement the provisions in Parts III and IV of the general permit must be clear, specific, and measurable.

The city must maintain records on the SWMP, submit an annual report to the TCEQ regularly, and submit other records to the TCEQ when requested. The records must include documentation pertaining to the effectiveness of BMPs and shall be included in the annual reports as required in Part IV.B.2. of the General Permit. The records must also be made available to the public. All changes to the SWMP that require a NOC must be included in the annual report as described in Part IV.B.2. of the General Permit and must meet the requirements of Part II.D.3. of the General Permit. The city must report non-compliance with the General Permit to the TCEQ and maintain accurate records at TCEQ offices.

The following endangered aquatic or aquatic dependent species was identified in the receiving waterbodies of the MS4. The Texas snowbell grows on limestone cliffs, slopes, and gravel streambeds along permanent or periodic waterways. No additional activities, BMPs, or controls will be included in the SWMP.

[Skip to Content](#)

Federal And State Listed Species Of Texas: Texas Snowbell



Distribution map of Texas snowbell (*Styrax platanifolius* ssp. *texanus*).

Scientific Name

Styrax platanifolius ssp. *texanus*

Other Scientific Names

Styrax texana, *Styrax platanifolius* var. *texanus*

Other Common Names

None

Status

Federally and State Endangered

Global Rank

G3T1

State Rank

S1

Global Location

Texas snowbell are native to the drainages of the Nueces and Devils rivers in Edwards, Kinney, Real, and Val Verde counties on the western Edwards Plateau of Texas. They have been introduced in Uvalde County.

Description

Texas snowbell is a deciduous shrub that emerges single-stemmed, but as it matures, grows multiple stems from its base. The plant is 1-6 m tall with smooth, gray bark and almost round leaves (2.5-7.5 cm across). Leaf edges are smooth or slightly wavy. The leaves are bright green and hairless on the upper surface, but have a thick layer of microscopic star-shaped white hairs on the lower surface. Leaf veins are arranged in a feather-like pattern, with one main, prominent vein in line with the leaf stalk and multiple smaller veins branching off the main vein. Usually 3-5 flowers hang downward from the same flower stalk, which arises from the same point as a leaf. A very pale green, bell-shaped structure (4-6 mm long and 4 mm wide) cups the base of each hanging flower. The five white flower petals are narrowly oval and 14-20 mm long. Ten male reproductive structures hang from the center of the flower, bearing bright orange pollen. A round, three-sectioned, 7-12 mm wide fruit eventually splits open to reveal (usually) one shiny brown seed.



Texas snowbell leaves are hairless on the upper surface, but have a thick layer of white hairs on the lower surface. Hanging flowers have five white petals and orange pollen.

Credit: Jackie Poole - Texas Parks & Wildlife Dept.



Texas snowbell has almost round leaves and mostly smooth leaf edges. One main, prominent leaf vein continues from the leaf stalk and multiple smaller veins branch off the main vein. A pale green, bell-shaped calyx cups each flower.

Credit: Jackie Poole - Texas Parks & Wildlife Dept.

Similar Species

Without flowers, Texas redbud (*Cercis canadensis* var. *texensis*) can be confused with Texas snowbell, except that the lower leaf surface is hairless in Texas redbud, and it has multiple prominent leaf veins radiating out from the point where the leaf attaches to its stalk. Three other closely related snowbell occur in Texas: hairy sycamore-leaf snowbell (*Styrax platanifolius* ssp. *stellatus*), sycamore-leaf snowbell (*Styrax platanifolius* ssp. *platanifolius*), and Young's snowbell (*Styrax platanifolius* ssp. *youngiae*). Young's snowbell is only found in West Texas, whereas the other subspecies have overlapping ranges in the Edwards Plateau. Below are tables that can be used to distinguish between the four subspecies, depending on available material. If possible, always use as many characteristics as possible to identify plants.



Although similar in appearance to the leaves of Texas snowbell, leaves of Texas redbud have a hairless lower leaf surface and multiple leaf veins originating from the point where the leaf attaches to the stalk.

Credit: Bill Carr



Hairy sycamore-leaf snowbell leaves have scattered hairs on the upper and lower leaf surfaces.

Credit: Bill Carr



Sycamore-leaf snowbell leaves have no hairs on the upper and lower leaf surfaces.

Credit: Bill Carr



Young's snowbell leaves have scattered hairs on the upper leaf surface and a thick layer of hairs on the lower leaf surface.

Credit: Patty Manning

Floral Characters

Plant Name	White, star-shaped hairs on flower stalk?	White, star-shaped hairs on calyx ¹ edges?	Density of glands ² on calyx ¹ edges	Calyx ¹ edge tooth length	What % of the stigma ³ is hairy? (<i>starting from the end attached to the flower</i>)
Texas snowbell	yes	yes, thin layer	dense	<1 mm	15 to 35%
hairy sycamore-leaf snowbell	yes	yes	dense	<1mm	50 to 70%
sycamore-leaf snowbell	no	no	dense	<1mm	15 to 35%
Young's snowbell	yes	yes, thick layer	sparse	<0.6 mm	60 to 80%

¹calyx: green leaf-like structures cupping flower

²glands: a small structure that drips substances or looks like it drips substances; in the case of snowbell, glands are minute, red-brown, globular, and have a rough surface

³stigma: stalk extending beyond pollen-bearing structures in flower center

Leaf Characters

Plant name	Leaf edge	Lower leaf surface hair present?	Scattered hairs on upper leaf surface?
Texas snowbell	smooth or slightly wavy	yes, thick layer	no
hairy sycamore-leaf snowbell	usually a few, irregular, rounded teeth	yes, but scattered and sparse	yes
sycamore-leaf snowbell	usually a few, irregular, rounded teeth	no	no
Young's snowbell	smooth, slightly wavy, or a few, coarse teeth	yes, thick layer	yes

Habitat

Texas snowbell grow on limestone cliffs, slopes, and gravel streambeds along permanent or periodic waterways.



Habitat of Texas snowbell (tree with blooms in center of image).

Credit: Jackie Poole - Texas Parks & Wildlife Dept.

Life Cycle Events

Flowering occurs from March to April and fruiting begins in April with fruits ripening and releasing seed in late summer or early fall. Germination occurs in spring.

Survey Season

For the most accurate identification, Texas snowbell should be identified while in bloom in March and April.

Comments

Various animals on the Edwards Plateau are heavily browsing the Texas snowbell population along the Nueces River. Establishment and reproduction of Texas snowbell has been so limited that plants are now confined to vertical cliffs and other hard-to-reach areas. For plants to grow in accessible sites along the river, cages must be utilized and maintained.

Additional Information

Rare Plants of Texas

U.S. Fish and Wildlife Service

NatureServe

Flora of North America

Center for Plant Conservation

Fulton, S. 2010. Status assessment and ecological study of *Styrax platanifolius* ssp. *texanus*. Section 6 final report. Austin: Texas Parks & Wildlife Dept..

Poole, J.M. 1993. Reproductive biology of Texas snowbells (*Styrax texana*). Section 6 final report. Austin: Texas Parks & Wildlife Department.

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Minimum Control Measure No. 1: Public Education, Outreach, and Involvement

The city 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.

The stormwater education and outreach program will involve the distribution of educational materials to the community and conduct equivalent outreach activities that will be used to inform the public. The city will direct its education and outreach efforts toward the community to enhance understanding and provide guidance to reduce their contribution to stormwater pollution. Emphasis will be placed on obtaining public involvement by encouraging citizens and business owners to invest themselves more into the prevention and reduction of storm water pollution to increase the effective amount of resources to perceive and address storm water pollution problems. Efforts will be directed toward residents, visitors, public service employees, businesses, commercial and industrial facilities, and construction site personnel. This MCM will inform the public about the impacts that storm water runoff can have on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps that can be taken by both the city and its citizens to reduce pollutants in storm water runoff. Materials addressing individual educational components will be distributed to each component's target audience.

In addition, the city shall develop and implement means for the public to become involved and to participate in the process of preventing or reducing storm water pollution. The city shall, at a minimum, comply with any state and local public notice requirements when implementing this public involvement/participation program.

The city shall document the activities performed and materials used to fulfill this MCM. Documentation shall be detailed enough to demonstrate the amount of resources used to address each group. This documentation shall be included in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in public education, outreach, and involvement stormwater pollution prevention follow. Implementation activities, measurable goals for each BMP are included in table 1.

BMP 1.1: NOI and NOC Public Comment

The approved SWMP Implementation Program will be maintained at City Hall for public review. Comments from the TCEQ's Executive Director that are received regarding this SWMP Implementation Program will be published in the City's official notice newspaper to provide opportunity for the public to review and comment within two weeks of the receipt of the Executive



Director's preliminary determination (comments). This will occur once, after the NOI has been submitted and the executive director's initial comments are received. It will also occur on a recurring basis at least to the extent required by the TCEQ when NOC's are submitted.

The public comment period begins on the first date the notice is published and lasts for at least 30 days. In the case that significant public interest exists, the City will publish a notice of the public meeting at least 30 days before the meeting and within 90 days of receipt of the Executive Directors preliminary determination (comments). The public meeting will be facilitated by TCEQ staff and allow for public participation.

BMP 1.2: Recurring Public Comment

The city will provide opportunities for citizens to participate in the development and Implementation of the SWMP. Citizens will be permitted to address council at each regular council meeting during the "Citizens to Be Heard" period near the beginning of each meeting on a recurring basis.

This SWMP Implementation Program will be kept at city hall and on the city's stormwater website to make it available for ongoing public review and comment after the initial comment period is complete. BMP start date is dependent on when the TCEQ review of the NOI is completed. Record copies of the city council minutes and any relevant documents containing stormwater matters discussed shall be maintained in the document file.

BMP 1.3: Brochures and Fact Sheets

The city will continue to develop or acquire educational materials such as brochures and fact sheets regarding the impacts of stormwater discharges on local water bodies and steps the public can take to reduce stormwater pollution. Educational materials will be distributed through the City's newsletter, website or social media networks two (2) times per year at a minimum. Informational materials (such as posters or brochures) will be placed at public meeting places, including but not limited to City Hall. Coordinate with other government offices and/or utilities whenever possible to share resources in a productive manner.

Educational materials distributed will educate the residents on how to limit their contribution to stormwater pollution including proper lawn and garden activities, including fertilizer, herbicide, and pesticide use; household hazardous waste disposal; water conservation practices; and proper septic system maintenance. Other brochures and fact sheets will address commercial, industrial, and institutional pollution issues.

This BMP has been evaluated as reaching a broad segment of the targeted audience and has been selected for inclusion in the new SWMP. This BMP will be directed toward:

1. **residents** through periodic residential newsletter mailings and through postings at city hall,
2. **visitors** through postings at city hall and the city's website,



3. **public service employees** through postings at city hall and in public works offices,
4. **business owners** through direct periodic business contact,
5. **commercial and industrial facilities** through direct periodic business contact, and **construction site personnel** through the building permit process. Contractors requiring building permits will be required to display stormwater pollution educational poster or fact sheet on the project site in plain view for the workers to read.

The number and frequency of mailings and publications shall be recorded in the document file.

BMP 1.4: Household Hazardous Waste

The city shall provide the opportunity for residents to properly dispose of household hazardous waste. Items collected shall include, paint products, used batteries, automotive products, and other certain household debris. Information about household hazardous waste will be incorporated into brochures and city newsletters to inform residents of their potential impact on the storm sewer system due to dumping. This type of communication helps minimize the risk for dumping to occur within the MS4, due to raised awareness. Copies of advertising announcements shall be recorded in the document file.

BMP 1.5: Stormwater Website

The city shall develop and implement a stormwater website that includes the SWMP, NOI, and annual reports for the MS4. Publication of these materials offer more opportunities for citizens to review city policies on stormwater and provide input on the city's SWMP. The website will maintain the website on an ongoing basis. Copies of all material updated on the website shall be recorded in the document file. The website for the MS4 is <http://www.kirbytx.org>.

BMP 1.6: Storm Drain Marking

The city shall continue to survey public storm drains within the MS4. The city's stormwater staff shall re-mark public storm drains with a durable paint, stamp, and/or plaque as needed.

The city's drainage standards shall require all new inlets be marked prior to city acceptance. Storm drain marking raises awareness that the stormwater system flows directly into local water bodies. Encouraging contractors and citizens to participate will help reduce the illicit discharge for dumping pollutants down the storm drains. This BMP will be directed toward residents, visitors, public service employees, businesses, commercial and industrial facilities, and construction site personnel in the vicinity of the storm drain. Record the location, date, and stencil condition for each inlet.

BMP 1.7: Stormwater Public Awareness Survey

The City shall perform a stormwater public awareness survey to invite comments and observations from the public regarding storm water pollution. The survey will be distributed through the city newsletter, the city website, and/or utility mailings such as bills and notices. Responses to the survey will be evaluated by city personnel and/or consultants to determine if repairs, construction projects, ordinances, or changes in city practice are appropriate. Record surveys received.

Table 1: Activities and Measurable Goals for MCM 1

BMP	Activity	Measurable Goals	Deadline
BMP 1.1: NOI and NOC Public Comment	Provide opportunity for public to comment on executive director's comments to the NOI and NOC's.	Publish comments from the TCEQ executive director 1 time.	January 2020 then annually
BMP 1.2: Recurring Public Comment	Provide opportunities for residents to address city council about the SWMP at regular council meetings.	Create 12 opportunities for residents to discuss stormwater matters.	January 2020 then annually
BMP 1.3: Brochures and Fact Sheets	Distribute education material, such as brochures or fact sheets.	Issue 2 brochures or fact sheets.	January 2021 then annually
BMP 1.4: Household Hazardous Waste	Provide the opportunity for residents to properly dispose of household hazardous waste.	Hold 1 opportunity for residents to dispose of household hazardous waste.	January 2021 then annually
BMP 1.5: Stormwater Website	Maintain the city's stormwater website.	Update stormwater website 1 time.	January 2020 then annually
BMP 1.6: Storm Drain Marking	Survey storm drain markings.	Survey 50% of storm drain markings.	January 2021 and January 2023
BMP 1.7: Stormwater Public Awareness Survey	Distribute surveys to the public.	Issue 100 surveys.	January 2020, January 2022, and January 2024

Minimum Control Measure No. 2: Illicit Discharge Detection and Elimination (IDDE)

The city will continue to implement a program to detect and to eliminate illicit discharges to the MS4. The program includes an ordinance which was adopted in the previous permit year. This MCM specifies the techniques to be used to detect illicit discharges, provides actions for eliminating the illicit discharges, and provides the basis for maintaining and updating the ordinance. The ordinance is, to the extent allowable under state and local law, to establish enforcement procedures for removing the source of an illicit discharge. Additionally, the city does not operate any on-site sewage disposal. Therefore, the prevention and correction of the on-site sewage disposal system leakage into the city's MS4 is not applicable. 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.

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4's Illicit Discharge and Detection or other minimum control measures, unless they 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:

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

The listed sources are not expected to be significant sources of pollutants because of the nature of their discharges. Consequently, no special controls or conditions are established.

Any changes to the SWMP must be included in the annual report as described in Part IV.B.2. of the General Permit and must meet the requirements of Part II.D.3. of the General Permit. The city shall maintain and update inspection forms and document MS4 inspections and the results of the inspections. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in illicit discharge detection and elimination follow:

BMP 2.1: Storm Sewer Map

The city has mapped the storm sewer system. The map, with its source cited, is found in this section (Tab 2) following the list of BMPs.

The map includes the zones pertaining to inspection schedules, the location of all outfalls that are operated by the permittee and that discharge into waters of the U.S; the location and name of all surface waters receiving discharges from the small MS4 outfalls; and priority areas identified under Part III.B.2.(e)(1), if applicable. A description of how the outfalls were verified will be maintained and updated with photos, where possible.

Photos of some outfalls and other significant storm conveyance features are keyed to the map (Tab 2) and are found following the map within the same section (Tab 2). The Storm Sewer Map will



be updated periodically based on inspection records and construction drawings for recently completed projects that affect the drainage system. Record a copy of the updated map.

BMP 2.2: Illicit Discharge Detection Plan

The city has implemented a plan listing techniques to be used to detect illicit discharges and sources of pollution. Sources of pollution include but are not limited to dumping and spills. In addition, the plan addresses forms to be used to document the results of inspections. The plan identifies city staff that will perform, and training methods for conducting, the inspections. Inspections will occur during dry weather when illicit discharges are easier to identify. Inspection techniques may include visual observation, conventional photography, in-pipe photography, sampling and analysis of water quality and water characteristics, dye testing, and smoke testing. The plan also provides actions for eliminating the illicit discharges as established in the ordinance. The city will use the most current edition of the Storm Sewer Map to update the inspection plan as necessary. The plan designates a regular time each year for each zone to be inspected for illicit discharges.

The plan facilitates public reporting of illicit discharges and provides response procedures for discharges and complaints. Each zone identified on the Storm Sewer Map has been assigned to an inspection season, which is a portion of the calendar year during which the zone's storm water conveyance system will be inspected. Record results of the inspections with photos and/or other supporting documents.

BMP 2.3: Illicit Discharge and Pollution Hotline

The city has established a phone number for reporting illicit discharges, spills, and dumping and publishes the phone number in places that are readily accessible to the public. At the special number, the phone will be answered by trained staff that will be equipped with forms for recording incoming phone calls and trained in how to refer the information for action. A recording system will accept phone calls after hours. Record copies of completed forms, showing the nature of incoming phone calls and the resulting action.

BMP 2.4: Illicit Discharge Ordinance

The city will continue to enforce of the current ordinance passed during the previous General Permit, to the extent allowable under state and local law, which identifies illicit discharges, prohibits illicit discharges, and establishes enforcement procedures for removing the sources of illicit discharges. The city shall continually monitor changes in conditions and regulations, and update the ordinance as needed. Record copies of updates.

Table 2: Activities and Measurable Goals for MCM 2

BMP	Activity	Measurable Goals	Deadline
BMP 2.1: Storm Sewer Map	Update storm sewer map.	Update map 1 time.	January 2021 and January 2023
BMP 2.2: Illicit Discharge Detection Plan	Inspect IDDE zones.	Inspect each zone 1 time.	January 2020 then annually
BMP 2.3: Illicit Discharge and Pollution Hotline	Maintain hotline on an ongoing basis.	Inspect 100% of complaints received.	January 2020 then annually
BMP 2.4: Illicit Discharge Ordinance	Review and update ordinance once during the permit term.	Review ordinance 1 time.	January 2022

Minimum Control Measure No. 3: Construction Site Stormwater Runoff Control

The city will continue to develop, implement, and enforce the program established in the previous permit term 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 includes the development and implementation of an ordinance that requires erosion and sediment controls with sanctions to ensure compliance to the extent allowable under state and local law; requirements for construction site contractors to control erosion and sediment; requirements for controlling construction waste; procedures for the city's review of site plans; procedures for receiving information and complaints; and procedures for the city to inspect construction sites and to enforce controls. The plan will not pertain to sites where the construction site operator has obtained a waiver from permit requirements under NPDES or TPDES construction permitting requirements based on a low potential for erosion.

The following discharges are prohibited:

1. Wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control;
2. Wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. Soaps or solvents used in vehicle and equipment washing; and
5. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs.

The city shall document the activities conducted and materials used to fulfill this MCM. This documentation shall be included in the annual reports as required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in construction storm water runoff control follow:

BMP 3.1: Technical Manual for Construction Runoff

The city developed a technical manual in April 2009 that provides guidance on selecting, installing, implementing, and maintaining stormwater control measures that prevent illicit



discharges to the MEP. The manual distribution has been incorporated into the building permit process with the intent of establishing consistency with other small cities in the region and providing a streamlined approach that will be user-friendly for designers and contractors. Developers and contractors are required to conform to the manual.

The manual will be reviewed one time during the permitting term and updated, if necessary. Record copies of reviews and updates.

BMP 3.2: Site Plan Review Program

A program has been developed that requires city staff to review site plans and storm water pollution prevention plans for eligible projects. The review process will be attached to the building permit process. Program must require that small and large construction site operators implement appropriate erosion and sediment control BMPs, in compliance with the TPDES Construction General Permit TXR150000. The plan identifies city staff to perform the reviews. The program will be reviewed for updates as needed. Record review forms and results with photos and/or other pertinent materials.

BMP 3.3: Construction Site Inspection Program

The city has developed procedures for inspecting large and small construction sites discharging to the MS4 for compliance with the city's stormwater ordinance. Inspections will be conducted on an ongoing basis.

Inspections allow for swift action to non-compliance by the operators of the construction site that can potentially be threat to water quality, such as: soil erosion potential; site slope; project size and type; and non-stormwater discharges. Program must require small and large construction site operators effectively implement appropriate erosion and sediment control BMPs so that it provides for compliance with the TPDES Construction General Permit TXR150000. Based on site inspection findings, the inspector will perform follow-up inspections and take the necessary enforcement actions. Record inspection forms and related documents, such as photos, and enforcement actions.

BMP 3.4: Construction Runoff Hotline

The city has established a stormwater pollution hotline for questions or reporting illicit discharges and construction erosion and sedimentation, and publishes the phone number in places that are readily accessible to the public. At the special number, the phone will be answered by trained staff that will be equipped with forms for recording incoming phone calls and trained in how to refer the information for action. Phone calls after hours will be accepted by a recording system. Record completed forms showing the nature of incoming phone calls and the resulting action.

BMP 3.5: Construction Storm Water Management Ordinance Update

The city has developed and implemented an ordinance to ensure compliance to the extent allowable under state, federal, and local law. The ordinance established requires operators of small and large construction activities to select, install, implement, and maintain stormwater control measures that prevent illicit discharges to the MEP. through the review of site plans. Stabilization must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures. Enforce ordinance on an ongoing basis. Record documentation of reviews and updates.

BMP 3.6: City Staff Training and Development

City staff responsible for the implementation of this SWMP shall receive stormwater training. Construction activities can contribute more sediment to streams, causing expedited physical and biological harm to our surface waters.

Acceptable methods for training include training courses, workshops, and webinars. Training shall include information on the effects construction site runoff pose to water quality, habitat and biological resources, public health, and the aesthetic appearance of areas within the MS4. Training shall explain the regulatory framework and technical considerations of the TPDES permit program.

Training shall be designed for stormwater manager, public works director, and/or other interested parties. Record documents of training received.

Table 3: Activities and Measurable Goals for MCM 3

BMP	Activity	Measurable Goals	Deadline
BMP 3.1: Technical Manual for Construction Runoff	Review technical manual.	Review manual 1 time.	January 2022
BMP 3.2: Site Plan Review Program	Review site plans submitted for review.	Review 100% of site plans.	January 2020 then annually
BMP 3.3: Construction Site Inspection Program	Inspect active construction sites.	Inspect 100% of active sites.	January 2020 then annually
BMP 3.4: Construction Runoff Hotline	Maintain hotline on an ongoing basis.	Inspect 100% of complaints received.	January 2020 then annually

BMP 3.5: Construction Storm Water Management Ordinance Update	Review and update ordinance, if needed.	Review ordinance 1 time.	January 2022
BMP 3.6: City Staff Training and Development	Attend training regarding stormwater.	Attend 1 training.	January 2020 then annually



EPA Region 6 - Compliance Assurance and Enforcement

Storm Water - Common Plan of Development or Sale

The following information was written prior to Phase 2 storm water regulations, which became effective on March 10, 2003. The information is accurate except that the 5 acre threshold has been reduced to 1 acre.

Common Plan of Development or Sale: 40 CFR 122.26(b)(14)(x) requires operators of construction or demolition projects disturbing 5 or more acres of earth, or less than 5 acres if part of a "larger common plan of development or sale" that cumulatively disturbs 5 or more acres to obtain an NPDES permit. Many people inquire as to what constitutes a common plan of development or sale and is there ever a time when this plan ends. A common plan of development or sale comes into being upon the time when there is documentation showing plans to disturb earth regardless of how many phases or how long it will take. Common documents used in EPA investigations to confirm such a plan include plats, blue prints, marketing plans, and contracts. Sometimes a new operator will want to perform some earth disturbing activities at facility that originally was a common plan of development or sale, but wants to know if it still is a common plan of development or sale for which they would need to apply for permit coverage even if under 5 acres. EPA Region 6 has used a 2 prong test to determine if a facility is no longer a common plan of development or sale:

1. Was the original plan, including modifications, ever substantially completed with less than 5 acres of the original "common plan of development or sale" remaining (e.g., <5 acres of the "common plan" were not built out at the time)?
2. Is there a clearly identifiable period of time where there is no on-going construction, including meeting the criteria for final stabilization (e.g. couple of years or more)?

If the new operator at a facility evaluates his project and determines that the original facility meets the two criteria above, then the original common plan of development or sale has ended and the operator should evaluate only their new construction plans. If the new plans are less than 5 acres and not part of another common plan of development or sale, then they would not need a permit.

- Example 1: A residential subdivision was started in the 1980's. 97 of 100 houses were built at that time. A new operator comes along and wants to build the last 3 houses and they are less than 5 acres. Does the builder need a permit? Using the 2 criteria test above, the original purposes was substantially completed (there are less than 5 acres total remaining from the original "common plan") and there has been a clearly identifiable period of time of no on-going construction. So the new operator would not need a permit.
- Example 2: A residential subdivision was started in the early 1980's. Due to bankruptcy, only 40 of the 100 lots were ever completed. There has been no earth disturbing since the mid 1980's. Does this facility need a permit if a new operator wants to come build 2 new houses on 0.5 acre lots? Yes, the new operator needs a permit no matter how few of acres he's disturbing because the original common plan of development or sale was never substantially completed. To build out the remaining 60 lots from the original "common plan" would disturb more than 5 acres.
- Example 3: A large mall was started last year and finished last month. At the last minute, the developer is able to buy 2 acres of adjacent property and wants to add some additional parking spaces to the new parking lot. He hires a new general contractor to build this parking lot. Does this new 2 acre parking lot need permit coverage? The original purposes may have been substantially completed, but there is no clearly identifiable time of no on-going construction. So the operators of the new parking lot would need a permit.

- Example 4: A large industrial plant covering 15 acres was completed 2 years ago. The company has grown, so the owners have decided to expand the facility and bought 4 acres adjacent to the facility to add a new building, parking, etc. that will disturb 3 of the 4 acres. He hires a new general contractor to build this expansion. Does this facility expansion need permit coverage? The original purpose was substantially completed, there is a clearly identifiable time of no ongoing construction, and the expansion will disturb less than 5 acres. The expansion projects will not need a permit.

REMINDER: The same "common plan of development or sale" approach will be used for Phase II when permits for construction projects disturbing 1-5 acres start needing permits March 10, 2003. You will then need to look at the remainder from a "common plan" to see if 1 or more acres would be disturbed.

The preamble of the 1998 EPA Construction General Permit includes a description about common plans of development or sale. The following is that description as found at 63 Fed. Reg. No. 128, July 6, 1998, p 36491:

My Project Will Disturb Less Than Five Acres, but it May Be Part of a "Larger Common Plan of Development or Sale." How Can I Tell and What Must I do?

If your smaller project is part of a larger common plan of development or sale that collectively will disturb five or more acres (e.g., you are building on six half-acre residential lots in a 10-acre development or are putting in a parking lot in a large retail center) you need permit coverage. The "plan" in a common plan of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. You must still meet the definition of operator in order to be required to get permit coverage, regardless of the acreage you personally disturb. As a subcontractor, it is unlikely you would need a permit.

For some situations where less than five acres of the original common plan of development remain undeveloped, a permit may not be needed for the construction projects "filling in" the last parts of the common plan of development. A case in which a permit would not be needed is where several empty lots totaling less than five acres remain after the rest of the project had been completed, providing stabilization had also been completed for the entire project. However, if the total area of all the undeveloped lots in the original common plan of development was more than five acres, a permit would be needed.

When Can You Consider Future Construction on a Separate Plan of Development or Sale?

In many cases, a common plan of development or sale consists of many small construction projects that collectively add up to five (5) or more acres of total disturbed land. For example, an original common plan of development for a residential subdivision might lay out the streets, house lots, and areas for parks, schools and commercial development that the developer plans to build or sell to others for development. All these areas would remain part of the common plan of development or sale until the intended construction occurs. After this initial plan is completed for a particular parcel, any subsequent development or redevelopment of that parcel would be regarded as a new plan of development, and would then be subject to the five (5) acre cutoff for storm water permitting.

Minimum Control Measure No. 4: Post-Construction Stormwater Management in New Development and Redevelopment

The city has, to the extent allowable under State and local law, implemented and enforces a program to address storm water runoff from eligible new development and redevelopment projects. The program applies to projects that disturb one acre of land or more and smaller projects that are part of a larger common plan of development or sale that will result in a total disturbance of one or more acres. The program will continue to ensure that controls are implemented to prevent or to minimize water quality impacts. The program provides for continued implementation of strategies which include a combination of structural and/or non-structural BMPs appropriate for the community. The city has adopted an ordinance to address post-construction runoff and ensure adequate long-term operation and maintenance of the implemented BMPs.

The city shall document the activities performed and materials used to fulfill this MCM. This includes documenting and maintaining records of enforcement actions taken. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in post-construction storm water management in new development and redevelopment follow:

BMP 4.1: Technical Manual for Post-Construction Runoff

The city has developed a manual to explain appropriate erosion, sedimentation, and other pollutant controls for developed sites. The manual provides alternative solutions and gives guidance as to when those alternatives are appropriate. The manual also establishes minimum control thresholds and proper maintenance criteria. The manual is intended to establish consistency with other small cities in the region and provide a streamlined approach that is user-friendly for developers.

The manual distribution has been incorporated into the building permit process with the intent of establishing consistency with other small cities in the region and providing a streamlined approach that will be user-friendly for designers and contractors. Developers and contractors are required to conform to the manual. Record copies of reviews and updates.

BMP 4.2: Site Plan Review Program for Post-Construction Runoff

A program has been developed that requires city staff to review all site plans and storm water pollution prevention plans for eligible projects. The review process will be attached to the building permit process and will ensure that proper measures are incorporated into the construction procedures that will control erosion, sedimentation, and other sources of storm water pollution.



The plan identifies city staff to perform the reviews. The program will be reviewed for updates as needed. Record review forms.

BMP 4.3: Long-Term Inspection and Maintenance Plan for Post-Construction Runoff

A program has been implemented for city staff to inspect post-construction storm water management controls on a long-term basis. The program identifies which city staff will perform inspections, identifies control performance criteria, establishes the means for determining what maintenance is required, and establishes a protocol for inspectors to follow. The program will be reviewed for updates as needed. Record copies of the forms, checklists, and written procedures.

BMP 4.4: Post-Construction Storm Water Management Ordinance Update

The city has adopted an ordinance which, to the extent allowable under State and local law, establishes requirements for storm water quality controls for post-construction conditions; specifies sanctions to ensure compliance; establishes long-term inspection and maintenance requirements; and requires city review of proposed long-term storm water pollution prevention plans. This ordinance will be enforced on an ongoing basis. Record documentation of reviews and updates.

Table 4: Activities and Measurable Goals for MCM 4

BMP	Activity	Measurable Goals	Deadline
BMP 4.1: Technical Manual for Post-Construction Runoff	Review and update manual, if needed.	Review manual 1 time.	January 2022
BMP 4.2: Site Plan Review Program for Post-Construction Runoff	Review site plans submitted for review.	Review 100% of plans.	January 2020 then annually
BMP 4.3: Long-Term Inspection and Maintenance Plan for Post-Construction Runoff	Review long-term inspection and maintenance plans.	Review 100% of plans.	January 2020 then annually
BMP 4.4: Post-Construction Storm Water Management Ordinance Update	Review and update the ordinance, if necessary.	Review ordinance 1 time.	January 2022

Minimum Control Measure No. 5: Pollution Prevention and Good Housekeeping for Municipal Operations

The City shall develop and implement an operation and maintenance program with the goal of preventing or reducing pollutants in storm water runoff from municipal operations. Examples of municipal operations and maintenance (O&M) activities for their potential to discharge pollutants in stormwater include, but are not limited to:

1. Road and parking lot maintenance, including such areas as pothole repair, pavement marking, sealing, and re-paving;
2. Bridge maintenance, including such areas as re-chipping, grinding, and saw cutting;
3. Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and
4. Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.

The program provides employee training and a list of applicable BMPs. The training program applies to all employees who are responsible for municipal operations that are subject to the pollution prevention/good housekeeping program. The training program includes training materials directed at preventing and reducing storm water pollution from municipal operations. The city has developed a maintenance plan for structural BMPs that establishes the frequency and manner of approach and preserves the effectiveness of the BMPs. The plan also addresses the disposal of waste, including dredge spoil; accumulated sediments; and floatables. The program includes a list of municipal operations that are subject to the operation, maintenance, or training program developed under the conditions of this section; and municipally owned or operated industrial activities that are subject to TPDES industrial storm water regulations.

The city shall document the activities performed and materials used to fulfill this MCM. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in pollution prevention and good housekeeping practices for municipal operations follow:

BMP 5.1: Municipal Employee Pollution Prevention Manual

The city has developed a comprehensive written manual for employees to reference related to proper handling of processes which may impact storm water quality. The manual specifies which methods shall be used to reduce the potential for polluting, and what methods shall be used to



clean up spills and other types of pollution. The manual provides a basis for training as listed in BMP 5.2. The manual is updated as required by the or changing accepted practices and/or regulations, or whenever new information becomes available. Record copies of reviews or updates.

BMP 5.2: Municipal Employee Training and Education

The city has developed and implemented a program to inform and train city employees who handle processes which may impact storm water quality. The program identifies processes that have the potential to impact storm water, identifies which employees will receive training, specifies which methods will be used to train them, and the acceptable criteria used to certify that the training has been accomplished. Record training documents and/or log of attendees.

BMP 5.3: Street Sweeping

The city will develop and implement a street sweeping program to reduce storm drain water pollutants including organic debris, litter, oil, sediment, and construction site runoff. Daily use of roads and streets (and parking lots) within a municipality can generate a build-up of pollutants including litter and sediment. Regular street sweeping can reduce the amount of pollutants in bodies of water which directly harm wildlife, or which cause indirect harm with algal blooms, changes to the ecosystem, and flooding. Sweeping will improve the aesthetics of streets and the city. Sweeping will be completed in accordance with the sweeping schedule. Record log indicating date, location of streets swept, and volume of trash collected.

BMP 5.4: Pest Management Program

The city shall develop and implement a pest management program to review procedures and processes for conducting pest control activities. Pesticides have the potential to cause harm to human health and the environment. Overuse, misuse, and careless application of pesticides can result in the accumulation of toxic substances on greenhouse structures and on plants, the possible development of pest resistance to the products applied, and risks to the health of applicators.

The city shall ensure all staff responsible for handling pesticides are properly trained. Emphasis will be placed on the utilization of alternative materials and chemicals considered more benign to the environment. Decreased pesticide use will result in less potential harm to human health and the environment and will help to prevent pesticide resistance in target organisms. Records indicating name of employee, location and time of application should be maintained, and used in planning future management strategies. Record copies of reviews or updates.

BMP 5.5: Disposal of Waste Materials

The city will review waste disposal procedures and processes for both municipal solid waste and hazardous materials. The city shall continue to ensure that all materials removed from the MS4 are disposed of in accordance with Chapters 330 and 335 of Title 30, Texas Administrative Code, as applicable. Compliance will be maintained by including 30 TAC requirements during municipal employee training as described in BMP 5.2. Incorporate updates into the training program on an ongoing basis. Record copies of updates incorporated into the training program.

BMP 5.6: Contractor Oversight Procedures

Contractors hired by the city to perform maintenance activities on city-owned facilities shall be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater operating procedures described in Parts III.B.5.(2-6) of the General Permit. The city will continue provide adequate oversight of contractor activities to ensure that they are using appropriate control measures and SOP's. Enforce contractual obligations on an ongoing basis. Record copies of updates. Record number of facilities covered by SOP's and number of facility inspections performed.

BMP 5.7: Inventory of Facilities and Stormwater Controls

The city shall continue to maintain the inventory of city owned facilities and stormwater controls operated within the regulated areas of the MS4. The inventory shall include all applicable permit numbers, registration numbers, and/or authorizations for each facility or control. The inventory will be available for review by the TCEQ and will include, at a minimum, the following facilities and/or controls, as applicable:

1. Composting facilities;
2. Equipment storage and maintenance facilities;
3. Fuel storage facilities;
4. Hazardous waste disposal facilities;
5. Hazardous waste handling and transfer facilities;
6. Incinerators;
7. Landfills;
8. Materials storage yards;
9. Pesticide storage facilities;



10. Buildings, including schools, libraries, police stations, fire stations, and office buildings;
11. Parking lots;
12. Golf courses;
13. Swimming Pools;
14. Public works yards;
15. Recycling facilities;
16. Salt storage facilities;
17. Solid waste handling and transfer facilities;
18. Street repair and maintenance sites;
19. Vehicle storage and maintenance yards; and
20. Structural stormwater controls.

Program also requires all pollution prevention measures implemented at appropriate permittee-owned facilities be visually inspected to ensure they are working properly. The municipal employee pollution prevention handbook can be used for guidance on common Good Housekeeping Practices (GHPs) and best management practices (BMPs). Each practice outlined in this manual is a way to reduce or eliminate stormwater pollution. Visual assessments should be conducted by qualified staff and after measurable precipitation falls during normal business hours. The storm water map must be updated to identify locations of priority areas and BMPs as needed. The inventory of pertinent pollution prevention facilities and controls will be reviewed and inspected once annually. Record copies of updates to the inventory of facilities and storm water controls shall be included in the annual report.

A log of inspections indicating the date and time, name, signature and title of inspector, a description of any discharges observed, and any incidents of noncompliance observed shall be retained and made available for review by the TCEQ upon request. These procedures for inspection will help demonstrate whether control measures are working and, if not, provide ways to improve stormwater control.

BMP 5.8: Assessment of Operations and Maintenance Activities

The city shall evaluate municipal operations and maintenance (O&M) activities for their potential to discharge pollutants in stormwater. The assessment will include (but is not be limited to):

1. Road and parking lot maintenance, including pothole repair, pavement marking, sealing, re-paving;



2. Bridge maintenance including such areas as re-chipping, grinding, and saw cutting;
3. Cold weather operations including sanding, plowing, and application of deicing and anti-icing compounds, and maintenance of any snow disposal areas; and
4. Right-of-way maintenance including mowing, herbicide and pesticide application, and planting of vegetation;

The city shall identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene; and xylenes; sediment; and trash). The city will 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:

1. Replacing materials and chemicals with more environmentally benign materials and methods;
2. Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
3. Placing barriers around or conducting runoff away from chemical storage areas to prevent discharge into surface waters.

Evaluation of municipal operations and activities provide insight on possible point sources of pollution from the city and efficiency of procedures in place. Record copies of municipal operations and maintenance activities evaluated.

Table 5: Activities and Measurable Goals for MCM 5

BMP	Activity	Measurable Goals	Deadline
BMP 5.1: Municipal Employee Pollution Prevention Manual	Review technical manual for new changes to accepted practices and regulations, and update if needed.	Review manual 1 time.	January 2020 then annually
BMP 5.2: Municipal Employee Training and Education	Municipal employees shall receive training.	Hold 1 municipal employee training.	January 2020 then annually
BMP 5.3: Street Sweeping	Develop and implement street sweeping procedures.	Review procedures 1 time.	January 2022
BMP 5.4: Pest Management Program	Develop and implement pest management program procedures.	Review procedures 1 time.	January 2022

BMP 5.5: Disposal of Waste Materials	Review municipal solid and hazardous waste disposal procedures, and update if needed.	Review procedures 1 time.	January 2020 then annually
BMP 5.6: Contractor Oversight Procedures	Review contractor oversight procedures and update, if needed.	Review procedures 1 time.	January 2020 then annually
BMP 5.7: Inventory of Facilities and Stormwater Controls	Review inventory of facilities and stormwater controls, if necessary.	Review inventory of facilities 1 time.	January 2020 then annually
BMP 5.8: Assessment of Operations and Maintenance Activities	Assess municipal operations and maintenance activities for their potential to discharge pollutants.	Evaluate 5 municipal operation and maintenance activities.	January 2020 then annually