

# **ALIANA**

## **STORMWATER QUALITY COALITION**

### **STORMWATER MANAGEMENT PROGRAM**

**AS REQUIRED BY:**

**TPDES GENERAL PERMIT NO. TXR040000**

PREPARED BY:



**LJA ENGINEERING**

2615 CALDER AVE, STE 500  
BEAUMONT, TEXAS 77702  
PHONE: (409) 833-3363  
FAX: (409) 833-0317

## Table of Contents

---

INTRODUCTION		1 - 3
SECTION 1	PUBLIC EDUCATION, OUTREACH, AND INVOLVEMENT	4 – 8
	1.A. Permit Requirements	
	1.B. Program Overview	
	1.C. Best Management Practices and Measurable Goals	
	1.D. BMP Implementation Schedule and MS4 Responsibilities	
SECTION 2	ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	9 – 11
	2.A. Permit Requirements	
	2.B. Program Overview	
	2.C. Best Management Practices and Measurable Goals	
	2.D. BMP Implementation Schedule and MS4 Responsibilities	
SECTION 3	CONSTRUCTION SITE STORMWATER RUNOFF CONTROL	12 – 14
	3.A. Permit Requirements	
	3.B. Program Overview	
	3.C. Best Management Practices and Measurable Goals	
	3.D. BMP Implementation Schedule and MS4 Responsibilities	
SECTION 4	POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT	15 - 17
	4.A. Permit Requirements	
	4.B. Program Overview	
	4.C. Best Management Practices and Measurable Goals	
	4.D. BMP Implementation Schedule and MS4 Responsibilities	
SECTION 5	POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS	18 – 21
	5.A. Permit Requirements	
	5.B. Program Overview	
	5.C. Best Management Practices and Measurable Goals	
	5.D. BMP Implementation Schedule and MS4 Responsibilities	
SECTION 6	INDUSTRIAL STORMWATER SOURCES	22
	6.A. Permit Requirements	
	6.B. Program Overview	
SECTION 7	MUNICIPAL CONSTRUCTION ACTIVITIES	23
	7.A. Permit Requirements	
	7.B. Program Overview	
SECTION 8	IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS	24 – 27
	8.A. Permit Requirements	
	8.B. Impaired Water Bodies	
	8.C. Best Management Practices and Measurable Goals	
	8.D. BMP Implementation Schedule and MS4 Responsibilities	

## Introduction

This stormwater management program (SWMP) for the Aliana Stormwater Quality Coalition has been prepared in compliance with the TPDES General Permit No. TXR040000 with the effective date of January 24, 2019. The Coalition has developed this SWMP in compliance with the regulations established in TPDES General Permit No. TXR040000 and will arrive at full implementation of their program within the five-year permit term. The Coalition has included implementation dates for each BMP included in the SWMP based on the frequency of the action as required by Part III Section A.2(a) of TXR040000. The SWMP is designed to cover the duration of the permit term and will be updated as required to ensure compliance with the requirements of TPDES General Permit No. TXR040000 and Section 402(p)(3)(B) of the Clean Water Act. The Coalition has reviewed the permit requirements established for each minimum control measure and developed clear, specific, and measurable BMPs and corresponding goals.

All permittees listed below participated in the development and have agreed to contribute in the implementation of this SWMP. As non-traditional MS4s, the Coalition members will implement the program to the MEP and rely on adjacent MS4 operators and the TCEQ Region 12 Office for additional enforcement assistance as allowed by Part III Section A.3(b)(2). This is a shared SWMP for the Aliana Stormwater Quality Coalition which consists of the following entities:

Entity	MS4 Level	Permit Number
Fort Bend County MUD No. 134B	Non-Traditional MS4 (Level 2)	New Permittee
Fort Bend County MUD No. 134C	Non-Traditional MS4 (Level 2)	New Permittee

Each entity in the Coalition is entirely responsible for meeting the applicable SWMP requirements and has agreed to limit the implementation of their BMPs to the boundaries of their MS4 within the urbanized area. The table below identifies the person for each entity that is responsible for the overall implementation of the SWMP.

Entity	Name	Title
Fort Bend County MUD No. 134B	Jason Kelly, P.E.	District Engineer
Fort Bend County MUD No. 134C	Jason Kelly, P.E.	District Engineer

The Aliana Stormwater Quality Coalition is located in the Upper Gulf Coast Region of Texas and consists of 2 non-traditional MS4s in Fort Bend County. The receiving water bodies for the Coalition's storm sewer system include: Upper Oyster Creek and Red Gully. A general location map of Fort Bend County is shown below in **Figure 1.1** and a map of the Coalition's urbanized area is included on the following page as **Figure 1.2**.

**General Location Map – Fort Bend County, Texas**

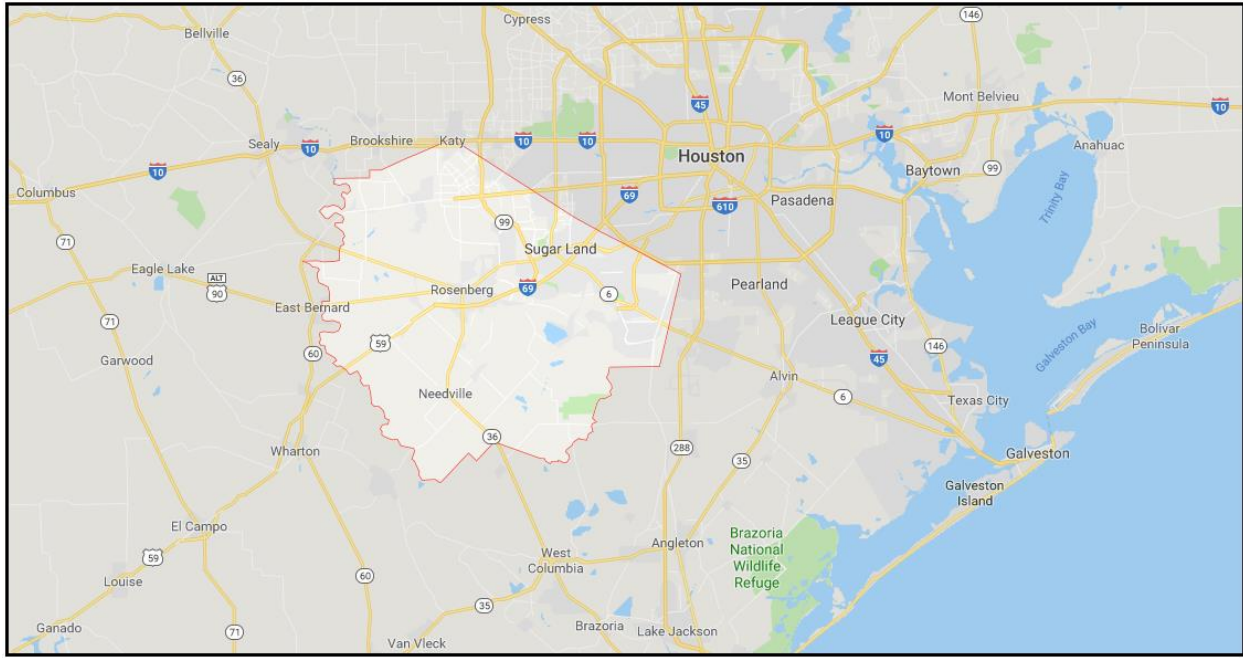


Figure 1.1

## 2010 Census Urbanized Area Map: Fort Bend County, Texas

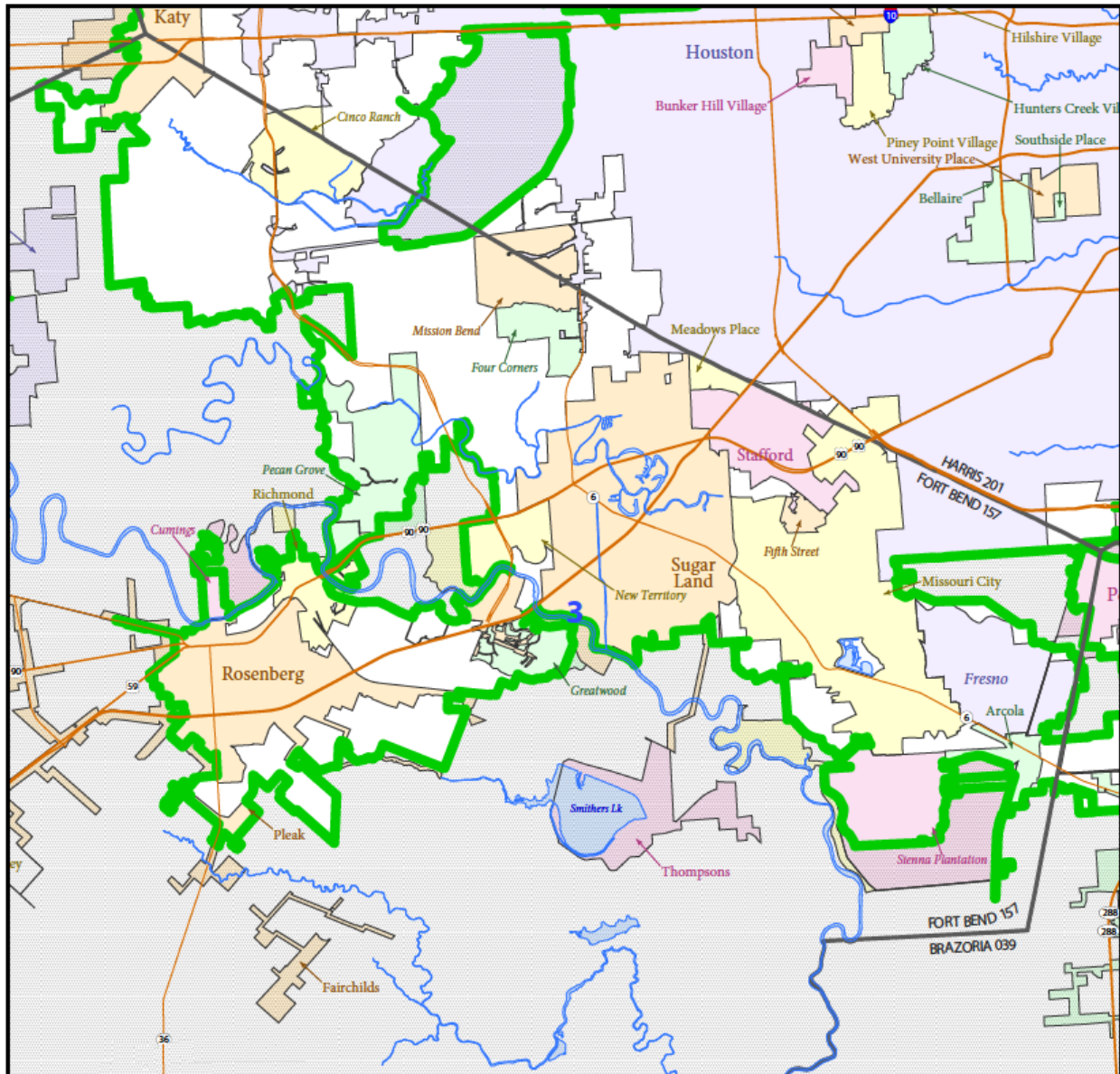


Figure 1.2

## Section 1: Public Education, Outreach, and Involvement

### **1.A. Permit Requirements**

*All permittees shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.*

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

### **1.B. Program Overview**

The permittees have assessed the program elements that are described in TPDES General Permit TXR040000 and developed BMPs to reduce the discharge of pollutants from the MS4 to the MEP. The program will be fully implemented by the end of the current permit term.

The Coalition has identified high-priority issues that can be addressed using the BMPs developed for Public Education, Outreach, and Involvement and developed the following goals: increase construction site operators' awareness of stormwater pollution; increase local residents' awareness of stormwater pollution; and encourage public involvement in the implementation of the stormwater management program.

The Coalition has reviewed which sources are likely to have significant impacts on stormwater quality and identified the following groups as the target audiences for their public education program:

- residents
- public service employees
- businesses
- commercial and industrial facilities
- construction site personnel

The target audiences were selected based on data collected throughout the implementation of the Coalition's SWMP and by reviewing EPA NPDES guidance documents regarding stormwater pollution sources.

The Coalition will inform the public about the steps they can take to reduce stormwater pollution through the development of flyers and/or brochures, a stormwater quality website containing educational materials ([www.TXMS4.com/Aliana](http://www.TXMS4.com/Aliana)), guidance documents, and by hosting public meetings. Additionally, the Coalition has created opportunities for citizens to participate in the implementation of control measures by: providing citizens with a Stormwater Hotline to report illicit discharges, illegal dumping, spills, and construction site discharge issues; hosting public meetings to allow input from the citizens on the implementation of the program; and by allowing local community organizations to assist in the distribution of public education materials. Through the use of multiple media outlets, the Coalition expects to reach a significant percentage of the local community during the permit term. The activities and materials utilized to fulfill the Public Education, Outreach, and Involvement MCM will be documented. The documentation of these records will be summarized in an annual report and will be specific enough to demonstrate compliance with the existing permit requirements. Included in each BMP is a description of what records will be maintained and reported in the annual reports.

The successfulness of the public education program will be evaluated based on the accomplishment of all associated measurable goals. The measurable goals were selected by analyzing the data collected during the previous permit and establishing program expectations for each associated BMP.

## **1.C. Best Management Practices and Measurable Goals**

### **Best Management Practices**

#### **Public Education and Outreach**

- A. Flyers and Brochures:** Development of flyers and brochures for the purpose of educating the public on stormwater impacts and ways they can minimize stormwater pollution.
- B. Education of Children:** Development of educational materials for school age children in order to foster a respect for water quality at an early age.
- C. Education of Construction Site Personnel:** Development of guidance materials for construction site personnel on the proper installation and maintenance of erosion and sediment controls.
- D. Public Service Announcements:** Utilize PSAs on the Coalition's stormwater website to educate the public on the impacts of stormwater pollution and steps they can take to improve water quality.
- E. SWMP Posting:** Post a copy of the SWMP on the Coalition's stormwater quality website for the public to review.
- F. Annual Report Posting:** Post a copy of each year's annual report on the Coalition's stormwater quality website for the public to review.
- G. SWMP Review:** Conduct an annual review of the Coalition's stormwater management program and perform any necessary updates.

#### **Public Involvement**

- H. Public Meetings:** Conduct public meetings to provide updates on the stormwater management program, receive comments from citizens to allow public input on the implementation of the program, and provide information on opportunities for citizens to participate in the implementation of control measures.
- I. Stormwater Hotline:** Advertise appropriate phone numbers for citizens to participate in the implementation of control measures by reporting illicit discharges, illegal dumping, spills, and construction site discharge issues.
- J. SWMP Public Notice:** The Coalition will adhere to all state and local public notice requirements during the TXR040000 permit renewal process.
- K. Stormwater Quality Website:** Develop and maintain a stormwater quality website to ensure that the public can easily find information about the SWMP and inform citizens about steps they can take to improve water quality.
- L. Educational Material Distribution:** Provide local community organizations with the opportunity to assist in the distribution of stormwater quality educational materials by providing them with materials for distribution at their meetings, when requested. All educational materials will be included on the stormwater quality website for viewing by the public.



## Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
Flyers and Brochures	Number of materials developed and/or posted on the stormwater website	Develop or post on the stormwater website at least 2 types of flyers/brochures per year
Education of Children	Number of materials developed	Develop at least 1 type of educational material annually for children
Education of Construction Site Personnel	Number of educational materials or guidance documents posted on the stormwater website	Make available annually on stormwater website at least 1 guidance document or brochure on construction site runoff issues
Public Service Announcements	Number of different PSAs being posted on the Coalition's stormwater website	Maintain at least 1 PSA on the Coalition's stormwater website annually to educate the public about water quality
SWMP Posting	Stormwater quality website with SWMP posted	Post a copy of the SWMP on the Coalition's stormwater website no later than 30 days after the TCEQ approval date
Annual Report Posting	Stormwater quality website with annual reports posted	Annually post a copy of the most recent annual report on the stormwater website no later than 30 days after the due date
SWMP Review	SWMP review forms including a description of any necessary updates	Conduct annual review of SWMP and perform any necessary updates
Public Meetings	Number of public meetings held and associated sign-in sheets	Conduct at least 1 public meeting per permit term
Stormwater Hotline	Number of phone calls received regarding stormwater quality issues	Develop or post on the stormwater website at least 2 types of materials/media per year that informs the public about reporting stormwater quality concerns
SWMP Public Notice	Affidavits and newspaper tear sheets associated with the public notice process	Comply with TCEQ public notice requirements for the TXR040000 permit renewal process
Stormwater Quality Website	Number of website views	Maintain and make available annually a stormwater quality website
Educational Material Distribution	Number of requests made by local community organizations and amount of materials provided	Maintain collection of education materials on the stormwater quality website annually for local community organizations to view



























## 1.D. BMP Implementation Schedule and MS4 Responsibilities

### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
Flyers and Brochures	Annually	December 2020
Education of Children	Annually	December 2020
Education of Construction Site Personnel	Annually	December 2020
Public Service Announcements	Annually	December 2020
SWMP Posting	Once per permit term	December 2020
Annual Report Posting	Annually	December 2020
SWMP Review	Annually	December 2020
Public Meetings	Once per permit term	December 2022
Stormwater Hotline	Annually	December 2020
SWMP Public Notice	Once per permit term	December 2020
Stormwater Quality Website	Annually	December 2020
Educational Material Distribution	Annually	October 2020

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

## MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
Flyers and Brochures		
Education of Children		
Education of Construction Site Personnel		
Public Service Announcements		
SWMP Posting		
Annual Report Posting		
SWMP Review		
Public Meetings		
Stormwater Hotline		
SWMP Public Notice		
Stormwater Quality Website		
Educational Material Distribution		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.

## Section 2: Illicit Discharge Detection and Elimination

### **2.A. Permit Requirements**

*All permittees shall develop, implement, and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non-stormwater discharges, including illegal dumping to the MS4 system.*

### **2.B. Program Overview**

The permittees have assessed the program elements that are described in TPDES General Permit TXR040000 and developed BMPs to reduce the discharge of pollutants from the MS4 to the MEP. The program will be fully implemented by the end of the current permit term.

The Illicit Discharge Detection and Elimination minimum control measure consists of BMPs that focus on the detection and elimination of illicit discharges into the MS4. The detection of non-stormwater discharges and illegal dumping will be accomplished through the inspection of outfalls at a frequency of 20 percent per year such that the Coalition's entire MS4 area will be inspected by the end of the five-year permit term. Any discharges identified during outfall inspections will be analyzed using colorimetric field test kits to determine the nature of the discharge and the flow will be traced upstream to identify the source. If illicit connections or illicit discharges are observed related to another operator's MS4, the permittees will notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittees shall notify the appropriate TCEQ Regional Office for enforcement assistance. Non-stormwater flows listed in Part II.C of TPDES General Permit TXR040000 will not be considered by the permittee as an illicit discharge unless the permittee identifies the flow as a significant source of pollutants to their small MS4.

The permittees included in the Coalition are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. Therefore, the enforcement authority for each permittee included in the Coalition will be limited to their permittee owned facilities, employees, and contractors within the urbanized area as allowed by Part III, Section A.3(b) of TXR040000.

The successfulness of the illicit discharge detection and elimination program will be evaluated based on the accomplishment of all associated measurable goals. The measurable goals were selected by analyzing the data collected during the previous permit and establishing program expectations for each associated BMP.

### **2.C. Best Management Practices and Measurable Goals**

#### **Best Management Practices**

- A. MS4 Outfall Map:** Maintain an updated map of the MS4 indicating the location of stormwater outfalls that discharge into waters of the U.S. and the location and name of all surface waters receiving discharges from the MS4.
- B. MS4 Outfall Inspections:** Conduct inspections of all outfalls in the urbanized area (once per permit term) in order to identify and reduce the presence of illicit discharges to the MS4.

- C. **Regulatory Mechanisms:** The permittees included in the Coalition are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. In lieu of an ordinance, the permittees will develop standard operating procedures for addressing illicit discharges.
- D. **MS4 Field Staff Training:** Conduct training for MS4 field staff to provide information regarding the identification of illicit discharges and proper reporting procedures.
- E. **IDDE Procedures:** Maintain procedures and all associated records for tracing/removing the source of an illicit discharge, responding to illicit discharges/spills, inspections in response to complaints, and to prevent/correct leaking on-site sewage disposal systems.
- F. **Public Reporting:** Develop media to facilitate public reporting of illicit discharges. Options include stormwater hotlines, websites, and flyers/brochures.

### Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
MS4 Outfall Map	Updated outfall map showing location of outfalls and surface waters receiving discharges from the MS4	Conduct at least 1 map review per permit term
MS4 Outfall Inspections	Outfall screening data for each inspection conducted. Data will include at a minimum: date of inspection, location of outfall, and details concerning any identified discharges	Screen 20% of the outfalls within the urbanized area annually
Regulatory Mechanisms	Number of referrals to adjacent MS4 operators and/or the TCEQ Regional Office regarding stormwater quality issues	Maintain standard operating procedures in effect annually
MS4 Field Staff Training	Number of training sessions conducted and the associated training materials/attendance lists	Conduct training at least once per permit term
IDDE Procedures	Standard operating procedures for illicit discharge detection/elimination	Maintain IDDE standard operating procedures in effect annually
Public Reporting	Number of reports received regarding stormwater quality issues	Develop or post on the stormwater website at least 2 types of media and/or materials annually to help facilitate public reporting of stormwater quality issues













## 2.D. BMP Implementation Schedule and MS4 Responsibilities

### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
MS4 Outfall Map	Once Per Permit Term	December 2022
MS4 Outfall Inspections	Annually	December 2020
Regulatory Mechanisms	Annually	December 2021
MS4 Field Staff Training	Once Per Permit Term	December 2022
IDDE Procedures	Annually	December 2020
Public Reporting	Annually	December 2020

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

### MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
MS4 Outfall Map		
MS4 Outfall Inspections		
Regulatory Mechanisms		
MS4 Field Staff Training		
IDDE Procedures		
Public Reporting		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.

## Section 3: Construction Site Stormwater Runoff Control

### 3.A. Permit Requirements

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

### 3.B. Program Overview

The permittees have assessed the program elements that are described in TPDES General Permit TXR040000 and developed BMPs to reduce the discharge of pollutants from the MS4 to the MEP. The program will be fully implemented by the end of the current permit term.

The construction site stormwater runoff minimum control measure consists of BMPs that focus on the reduction of pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or are part of a larger common plan of development or sale that would disturb one acre or more of land. The permittees are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. Therefore, the enforcement authority for the permittees will be limited to their permittee owned facilities, employees, and contractors within the urbanized area as allowed by Part III, Section A.3(b) of TXR040000. All permittee owned construction sites resulting in a land disturbance of greater than or equal to one acre or are part of a larger common plan of development or sale will comply with the TCEQ Construction General Permit No. TXR150000. Each required site will incorporate a Stormwater Pollution Prevention Plan (SWP3) including adequate sediment and erosion controls. In compliance with the regulations established in TXR150000, SWP3s developed for permittee owned sites will include BMPs to minimize the discharge of pollutants from: equipment and vehicle washing, wheel wash water, building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and any leaks/spills. For discharges from third party actions, the permittees will conduct inspections to the MEP and utilize enforcement assistance from adjacent MS4 operators and/or the appropriate TCEQ Regional Office.

The successfulness of the construction site stormwater runoff control program will be evaluated based on the accomplishment of all associated measurable goals. The measurable goals were selected by analyzing the data collected during the previous permit and establishing program expectations for each associated BMP.

### 3.C. Best Management Practices and Measurable Goals

#### Best Management Practices

- A. Construction Site Plan Review:** Implement a construction site plan review program that focuses on ensuring that permittee owned construction sites that result in a land disturbance of greater than or equal to one acre or are part of a larger common plan of development or sale that would disturb one acre or more of land, have stormwater pollution prevention plans developed in accordance with TPDES Construction General Permit TXR150000.
- B. Plan Review, Inspection, and Enforcement Procedures:** Maintain and implement site plan review, inspection, and enforcement procedures for permittee owned projects that describe which plans will be reviewed, when operators may begin construction, soil stabilization requirements, and how inspection/enforcement actions will be conducted.

- C. Construction Site Inspection/Enforcement:** Conduct inspections of construction sites and associated control measures within the urbanized area. Utilize adjacent MS4 operators and/or the appropriate TCEQ Regional Office for enforcement assistance.
- D. Regulatory Mechanisms:** The permittees are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. In lieu of an ordinance, the permittees will develop standard operating procedures for addressing discharges from third party construction sites.
- E. Public Reporting:** Maintain and implement procedures for receipt and consideration of information submitted by the public regarding construction site stormwater runoff.
- F. MS4 Staff Training:** Conduct training for MS4 staff based on the employee training standard operating procedures to provide information regarding the construction site stormwater runoff program.

### Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
Construction Site Plan Review	Number of permittee owned project plans reviewed	Review permittee owned construction plans annually that will result in the disturbances of greater than or equal to one acre, or are part of a common plan of development or sale that will result in the disturbance of one or more acres for compliance with the CGP
Plan Review, Inspection, and Enforcement Procedures	Standard operating procedures that address plan review, inspections, and enforcement actions related to permittee owned construction sites	Maintain standard operating procedures in effect annually
Construction Site Inspection/Enforcement	Number of construction site inspections conducted	Conduct at least 1 inspection cycle per quarter of active construction sites
Regulatory Mechanisms	Number of referrals to adjacent MS4 operators and/or the TCEQ Regional Office regarding stormwater quality issues	Maintain standard operating procedures in effect annually
Public Reporting	Number of reports received regarding stormwater quality issues	Develop or post on the stormwater website at least 2 types of media and/or materials annually to help facilitate public reporting of stormwater quality issues
MS4 Staff Training	Number of training sessions conducted and the associated training materials/attendance lists	Conduct training at least once per permit term















### 3.D. BMP Implementation Schedule and MS4 Responsibilities

#### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
Construction Site Plan Review	Annually	December 2021
Plan Review, Inspection, and Enforcement Procedures	Annually	December 2021
Construction Site Inspection/Enforcement	Annually	December 2021
Regulatory Mechanisms	Annually	December 2020
Public Reporting	Annually	December 2020
MS4 Staff Training	Once Per Permit Term	December 2022

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

#### MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
Construction Site Plan Review		
Plan Review, Inspection, and Enforcement Procedures		
Construction Site Inspection/Enforcement		
Regulatory Mechanisms		
Public Reporting		
MS4 Staff Training		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.

## Section 4: Post Construction Stormwater Management in New Development/Redevelopment

### **4.A. Permit Requirements**

*All permittees shall develop, implement, and enforce a program, to the extent allowable under state, federal, and local law, to control stormwater discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites. The program may utilize an offsite mitigation and payment in lieu of components to address this requirement.*

### **4.B. Program Overview**

The permittees have assessed the program elements that are described in TPDES General Permit TXR040000 and developed BMPs to reduce the discharge of pollutants from the MS4 to the MEP. The program will be fully implemented by the end of the current permit term.

The Coalition's post construction stormwater management program consists of BMPs to control stormwater discharges from new development and redeveloped sites. Operators of applicable sites are required to design, install, implement, and maintain a combination of structural and non-structural BMPs that are appropriate for the community and that protect water quality (plan review and enforcement of post construction requirements is implemented by the county in which the property is located). In addition, members of the Coalition own and operate a series of regional detention ponds that function as offsite mitigation for areas where the construction of permanent structural controls is infeasible, as allowed by Part III, Section B.4(a)(1). Long-term maintenance of the structural controls owned and operated by the Coalition will be conducted by the applicable permittee. Operators of privately-owned structural controls will be required to file a maintenance plan with Fort Bend County.

The permittees included in the Coalition are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. Therefore, the enforcement authority for each permittee included in the Coalition will be limited to their permittee owned facilities, employees, and contractors within the urbanized area as allowed by Part III, Section A.3(b) of TXR040000.

The successfulness of the post construction stormwater management program will be evaluated based on the accomplishment of all associated measurable goals. The measurable goals were selected by analyzing the data collected during the previous permit and establishing program expectations for each associated BMP.

#### 4.C. Best Management Practices and Measurable Goals

##### Best Management Practices

- A. **Development Project Plan Review:** Review development plans to ensure compliance with local post construction runoff guidelines and inclusion of appropriate permanent stormwater quality controls.
- B. **Regulatory Mechanisms:** The permittees are non-traditional MS4s and lack the legal authority necessary to develop ordinances to implement enforcement actions against third parties who violate the permit requirements established in TPDES General Permit TXR040000. In lieu of an ordinance, the permittees will develop standard operating procedures for addressing post construction stormwater management issues from third party construction sites.
- C. **Post Construction Control Inspections:** Conduct inspections of permanent stormwater quality control structures to ensure adequate long-term operation and maintenance of BMPs. Inspections are limited to the controls owned and operated by the permittees within the urbanized area.
- D. **Post Construction Procedures:** Develop and maintain standard operating procedures to document records of enforcement actions and procedures for ensuring long-term operation/maintenance of post construction stormwater control measures.

##### Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
Development Project Plan Review	Number of development plans reviewed and approved with permanent post construction stormwater controls	Review development plans for the inclusion of post construction controls annually
Regulatory Mechanisms	Number of referrals to adjacent MS4 operators and/or the TCEQ Regional Office regarding stormwater quality issues	Maintain standard operating procedures in effect annually
Post Construction Control Inspections	Documentation of each inspection conducted of permittee owned permanent structural controls; any necessary maintenance actions or operational modifications will be noted in the inspection records	Inspect permittee owned permanent structural controls at least once per permit term
Post Construction Procedures	Standard operating procedures that address documentation of enforcement actions and long-term operation/maintenance of post construction stormwater control measures	Maintain standard operating procedures in effect annually









#### 4.D. BMP Implementation Schedule and MS4 Responsibilities

##### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
Development Project Plan Review	Annually	December 2021
Regulatory Mechanisms	Annually	December 2020
Post Construction Control Inspections	Once Per Permit Term	December 2021
Post Construction Procedures	Annually	October 2020

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

##### MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
Development Project Plan Review		
Regulatory Mechanisms		
Post Construction Control Inspections		
Post Construction Procedures		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.

## Section 5: Pollution Prevention and Good Housekeeping for Municipal Operations

### **5.A. Permit Requirements**

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

### **5.B. Program Overview**

The permittees have assessed the program elements that are described in TPDES General Permit TXR040000 and developed BMPs to reduce the discharge of pollutants from the MS4 to the MEP. The program will be fully implemented by the end of the current permit term.

The Pollution Prevention and Good Housekeeping for Municipal Operations minimum control measure consists of BMPs that focus on employee training and on the prevention or reduction of pollutant runoff from municipal operations. Coalition employees responsible for municipal operations will attend training programs that focus on procedures for reducing the discharge of pollutants from activities such as park and open space maintenance, fleet and building maintenance, new construction/land disturbances, and stormwater system maintenance.

The Coalition implements good housekeeping measures and non-structural BMPs that reduce the discharge of pollutants from the following municipal operations:

- Park and open space maintenance
- Fleet and building maintenance
- Storm sewer system maintenance
- New construction and land disturbances

Within the urbanized area, the Coalition does not operate or maintain the following municipal operations:

- Waste transfer stations
- Street, road, or highway maintenance
- Municipal parking lots
- Vehicle/equipment maintenance and storage yards
- Salt/sand storage locations

The successfulness of the pollution prevention and good housekeeping program will be evaluated based on the accomplishment of all associated measurable goals. The measurable goals were selected by analyzing the data collected during the previous permit and establishing program expectations for each associated BMP.

## 5.C. Best Management Practices and Measurable Goals

### Best Management Practices

- A. **MS4 Facility Inventory:** Maintain an inventory of applicable facilities and stormwater controls pursuant to the requirements established in Part III, Section B.5(b)(1) of TPDES General Permit TXR040000, that each permittee owns and operates within the urbanized area.
- B. **Employee Training Program:** Conduct a training program to target employees that are involved in municipal operations applicable to the pollution prevention and good housekeeping MCM.
- C. **Waste Disposal Procedures:** Maintain standard operating procedures for the appropriate disposal of waste materials from maintenance activities such as floatable collections, dredge spoils, and/or accumulated sediments.
- D. **Contractor Oversight Procedures:** Maintain procedures that contractually require contractors hired by the permittee to perform maintenance activities on permittee-owned facilities to comply with all stormwater control measures, good housekeeping practices, and facility specific stormwater management operating procedures.
- E. **Operation and Maintenance Activities:** Maintain and implement general pollution prevention plans that identify potential pollutants of concern and address stormwater discharges from permittee operation and maintenance activities, including road and parking lot maintenance, bridge maintenance, cold weather operations, and right-of-way maintenance.
- F. **Facility Inspections:** Conduct inspections of permittee owned facilities to identify potential pollutants of concern and to evaluate the effectiveness of existing pollution prevention measures. If structural controls are necessary, maintenance of the controls must be performed by the permittee and consistent with maintaining the effectiveness of the BMP. The frequency of the inspections and how they will be conducted will be described in the standard operating procedures and pollution prevention plans.
- G. **Waste/Debris Collection:** Conduct waste/debris collection to reduce floatable material discharges to the MS4.
- H. **Municipal Operation Procedures:** Maintain standard operating procedures for inspecting/maintaining structural controls at municipal facilities and for conducting employee training for staff members involved in implementing pollution prevention/good housekeeping practices.

## Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
MS4 Facility Inventory	Inventory of facilities and stormwater controls	Maintain an inventory of facilities and stormwater controls that each permittee owns and operates within the urbanized area annually
Employee Training Program	Number of training sessions conducted and the associated training materials/attendance lists	Conduct at least one employee training session per permit term
Waste Disposal Procedures	Standard operating procedures for waste disposal	Maintain standard operating procedures in effect annually for the proper disposal of waste; including dredge spoil, accumulated sediments, and floatables
Contractor Oversight Procedures	Standard operating procedures for contractor oversight	Maintain contractor oversight procedures in effect annually
Operation and Maintenance Activities	General pollution prevention plan	Maintain general pollution prevention plan in effect annually for municipal operations
Facility Inspections	Log of facility inspections and the associated inspection documentation	Inspect each permittee owned facility identified in the MS4 facility inventory at least once per permit term
Waste/Debris Collection	Estimated volume of waste/debris collected	Conduct waste/debris collection on an annual basis within the regulated area
Municipal Operation Procedures	Standard operating procedures for municipal operations	Maintain standard operating procedures in effect annually for inspecting/maintaining structural controls at municipal facilities and for employee training



















## 5.D. BMP Implementation Schedule and MS4 Responsibilities

### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
MS4 Facility Inventory	Annually	December 2020
Employee Training Program	Once Per Permit Term	December 2022
Waste Disposal Procedures	Annually	December 2020
Contractor Oversight Procedures	Annually	December 2020
Operation and Maintenance Activities	Annually	December 2021
Facility Inspections	Once Per Permit Term	December 2022
Waste/Debris Collection	Annually	December 2020
Municipal Operation Procedures	Annually	October 2020

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

### MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
MS4 Facility Inventory		
Employee Training Program		
Waste Disposal Procedures		
Contractor Oversight Procedures		
Operation and Maintenance Activities		
Facility Inspections		
Waste/Debris Collection		
Municipal Operation Procedures		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.

## Section 6: Industrial Stormwater Sources

### **6.A. Permit Requirements**

*Permittees who operate level 4 small MS4s shall identify and control pollutants in stormwater discharges to the small MS4 from permittee's landfills, other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4. The program must include priorities and procedures for inspections and for implementing control measures for such discharges.*

### **6.B. Program Overview**

N/A - only applies to Level 4 Small MS4s

## Section 7: Municipal Construction Activities

### **7.A. Permit Requirements**

*The development of this MCM for construction activities, where the small MS4 is the site operator, is optional and provides an alternative to the MS4 operator seeking coverage under TPDES CGP, TXR150000 for each construction activity. Permittees that choose to develop this measure will be authorized to discharge stormwater and certain non-stormwater from construction activities where the MS4 operator meets the definition of a construction site operator in Part I of this general permit. When developing this measure, permittees are required to meet all requirements of, and be consistent with, applicable effluent limitation guidelines for the Construction and Development industry (40 CFR Part 450), TPDES CGP TXR150000, and Part III.B.3 of this permit. The authorization to discharge under this MCM is limited to the regulated area, such as the portion of the small MS4 located within an UA or the area designated by TCEQ as requiring coverage. However, an MS4 operator may also utilize this MCM over additional portions of their small MS4 that are also in compliance with all of the MCMs listed in this general permit. This MCM must be developed as a part of the SWMP that is submitted with the NOI for permit coverage. If this MCM is developed after submitting the initial NOI, a NOC must be submitted notifying the executive director of this change, and identifying the geographical area or boundary where the activities will be conducted under the provisions of this general permit. Utilization of this MCM does not preclude a small MS4 from obtaining coverage under the TPDES CGP, TXR150000, or under an individual TPDES permit.*

### **7.B. Program Overview**

The permittees have elected **NOT** to utilize the optional 7<sup>th</sup> MCM.

## Section 8: Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements

### **8.A. Permit Requirements**

*Discharges of the pollutant(s) of concern to impaired water bodies for which there is a TCEQ and EPA approved TMDL are not eligible for this general permit unless they are consistent with the approved TMDL. A water body is impaired for purposes of the permit if it has been identified, pursuant to the latest TCEQ and EPA approved CWA 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d) which lists the category 4 and 5 water bodies, as not meeting Texas Surface Water Quality Standards.*

*The Permittee shall check annually, in conjunction with preparation of the annual report, whether an impaired water within its permitted area has been 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) which lists the category 4 and 5 water bodies. Within two years following the approval date of the new list(s) of impaired waters, the permittee shall comply with the requirements of Part II.D.4(b) (with the exception of (b)(1)c.), and shall identify any newly listed waters in the annual report (consistent with Part IV.B.2.f) and SWMP (consistent with Part III.A.2.f).*

*The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies where a TMDL has not yet been approved by TCEQ and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities: (Activities listed in Part II, Section D.4(b)(1) of TXR040000)*

### **8.B. Program Overview**

The Coalition has conducted an assessment of the applicable stream segments and identified impaired water bodies that receive MS4 discharges from their urbanized areas. The permittees have identified that the discharges from their MS4s are a potential source of the pollutants of concern. Focused BMPs have been developed for discharges to impaired water bodies **without** an approved TMDL, along with targeted control measures for discharges to water bodies **with** an approved TMDL. The targeted controls include activities related to sanitary sewer systems, on-site sewer facilities, illicit discharges, illegal dumping, animal sources, and residential education programs. The permittees will conduct an annual review to determine if any water bodies within the regulated area have been added to the EPA 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d). If during the course of the permit term a TMDL is developed and approved for a stream segment that did not have an existing TMDL, or a water body is listed as impaired, the applicable Coalition entities will begin implementation of the appropriate BMPs listed in this section. Table 8.1 includes a list of stream segments, current impairment status, pollutants of concern, and associated water quality benchmarks.

The benchmark for each pollutant of concern for water bodies with an approved TMDL were selected based on associated waste load allocations for permitted MS4 stormwater sources as identified in the applicable TMDL documents and/or implementation plans.

The Coalition will assess progress in achieving benchmarks and determining the effectiveness of BMPs by evaluating program implementation measures. The following indicators will be utilized to assess progress towards the benchmark(s): the number of illicit discharge sources identified or eliminated, number of public education opportunities conducted, and results of outfall inspection activities.

Table 8.1

Stream Segments	Impairment Status	Parameter(s)	Benchmark(s)/Waste Load Allocation	Applicable MS4s
Upper Oyster Creek - 1245	Approved TMDL	Dissolved Oxygen; Bacteria	N/A	Fort Bend County MUD 134B, Fort Bend County MUD 134C

### 8.C. Best Management Practices and Measurable Goals

#### Best Management Practices

- A. **TMDL I-Plans:** Comply with existing implementation plans for discharges to impaired water bodies for which there is a TCEQ and EPA approved TMDL.
- B. **Sanitary Sewer Capital Improvement Projects:** Document and report on sanitary sewer system capital improvement projects that result in the reduction of sanitary sewer overflows, lift station improvements, and/or a reduction in the magnitude of stormwater inflow and infiltration into the sanitary sewer system.
- C. **Public Reporting:** Develop educational materials and website content focused on the identification and public reporting of sanitary sewer overflows, failing on-site sewer systems, illicit discharges, and illegal dumping.
- D. **Maintenance of On-Site Sewer Systems:** Develop media to facilitate proper maintenance of on-site sewer systems. Educational material options include brochures, flyers, and/or websites.
- E. **Outfall Inspections:** Utilize reports from MS4 field staff, citizens, and annual outfall inspections to identify illicit discharges and illegal dumping sites.
- F. **Pet Waste Management:** Develop media to facilitate and promote proper pet waste management practices. Educational material options include flyers, brochures, and/or websites.
- G. **Residential Education:** Develop media to facilitate public education for bacterial sources including residential sources, pet waste, proper disposal of fats, oils and greases, and decorative ponds. Educational material options include brochures, flyers, and/or websites.

## Measurable Goals & Record Keeping

BMP	Records to be Maintained	Measurable Goals
TMDL I-Plans	TMDL I-Plan compliance evaluation forms	Conduct TMDL I-Plan compliance evaluation at least once per permit term
Sanitary Sewer Capital Improvement Projects	Number of sanitary sewer capital improvement projects completed	Conduct a review of current and upcoming sanitary sewer capital improvement projects once per permit term
Public Reporting	Number of reports received regarding stormwater quality issues	Develop or post on the stormwater website at least 1 type of media and/or materials annually to help facilitate public reporting of stormwater quality issues
Maintenance of On-Site Sewer Systems	Number of materials developed and/or posted on the stormwater website	Develop or post on the stormwater website at least 1 type of media/materials per year to promote the proper maintenance of on-site sewer systems
Outfall Inspections	Outfall screening data for each inspection conducted. Data will include at a minimum: date of inspection, location of outfall, and details concerning any identified discharges	Inspect 20% of the outfalls within the urbanized area annually
Pet Waste Management	Number of materials developed and/or posted on the stormwater website	Develop or post on the stormwater website at least 1 type of media/materials per year to promote the proper disposal of pet waste
Residential Education	Number of materials developed and/or posted on the stormwater website	Develop or post on the stormwater website at least 1 type of media/materials per year to help facilitate public education for residential bacterial sources















## 8.D. BMP Implementation Schedule and MS4 Responsibilities

### BMP Implementation Schedule

BMP	Frequency of Action	Implementation Status
TMDL I-Plans	Once Per Permit Term	December 2022
Sanitary Sewer Capital Improvement Projects	Once Per Permit Term	December 2022
Public Reporting	Annually	December 2020
Maintenance of On-Site Sewer Systems	Annually	December 2020
Outfall Inspections	Annually	December 2020
Pet Waste Management	Annually	December 2020
Residential Education	Annually	December 2020

\*BMPs that are implemented on an annual basis will be conducted prior to December 31<sup>st</sup> of each year.

### MS4 Responsibilities

BMP	Fort Bend County MUD 134B	Fort Bend County MUD 134C
TMDL I-Plans		
Sanitary Sewer Capital Improvement Projects		
Public Reporting		
Maintenance of On-Site Sewer Systems		
Outfall Inspections		
Pet Waste Management		
Residential Education		

The raindrop symbol denotes which BMPs each entity will implement. Each participating member in the Coalition has agreed to limit the implementation of their applicable BMPs to the boundaries of their MS4 within the urbanized area.