



# CITY OF DICKINSON



# STORM WATER MANAGEMENT PLAN

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## Section 1 Definitions

*Best Management Practice*- schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. Best management practices also include treatment requirements, operating procedures, practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

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

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

*Illicit Connection* – any manmade conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

*Illicit Discharge* – any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a National Pollutant Discharge Elimination System permit (other than the municipal separate storm sewer).

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

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

*Outfall* – a point source at the point where a municipal separate storm sewer discharges to waters of the United States.

*Permitting Authority* – for the purposes of this general permit, the TCEQ.

*Storm Water* – storm water runoff, snow melt runoff, and surface runoff and drainage.

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

*Waters of the United States* – Waters of the United States or waters of the U.S. means:

(a) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) all interstate waters, including interstate wetlands;

(c) all other waters such as interstate lakes, rivers, streams (including intermittent streams),

mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

- which are or could be used by interstate or foreign travelers for recreational or other purposes;
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- which are used or could be used for industrial purposes by industries in interstate commerce;

(d) all impoundments of waters otherwise defined as waters of the United States under this definition

(e) tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) the territorial seas; and

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

## **Section 2 Introduction**

### **Section 2.1 Regulatory Requirement**

The Environmental Protection Agency (EPA), under the Clean Water Act (CWA), regulates discharges by issuance of National Pollutant Discharge Elimination System (NPDES) permits. The 1972 amendment to the CWA prohibits discharge of any pollutant into the waters of the United States from a point source unless the discharge is authorized by a NPDES permit. The NPDES program initially targeted easily detected sources of water pollution such as municipal sewage and industrial process wastewater and was successful in improving water quality impairment – non-point sources such as runoff from agricultural and forestry operations, and storm water runoff.

Congress further amended the CWA in 1987 and required the EPA to establish NPDES requirements for stormwater discharges. A comprehensive, two phase approach to stormwater control was established. On November 15, 1990, the EPA published (55 Federal Register 47990) initial permit application regulations for 11 categories of stormwater discharges associated with industrial activity and from drainage systems located in municipalities with a population of 100,000 or more. The Phase I stormwater regulations required large sources of stormwater discharge to apply for NPDES permits. Large sources include medium and large municipal storm sewer systems usually serving 100,000 people or more, as well as several categories of industrial activity including construction activity disturbing five or more acres of land.

In 1998, the Texas Commission for Environmental Quality (TCEQ) was delegated authority to administer the NPDES permitting program in Texas. The Texas Pollutant Discharge Elimination System (TPDES) program now has federal regulatory authority over discharges of pollutants to Texas surface waters.

The NPDES Phase II rule, promulgated in December 1999, expanded the scope of the NPDES program to include smaller local governments. Dickinson and other small municipalities (population under 100,000) that manage their stormwater facilities are regulated as Phase II municipalities under the NPDES/TPDES municipal separate storm water system (MS4) permit requirements. Phase II cities are required to obtain coverage under the TCEQ General Permit within 90 days of the permit issuance date. The permit will cover five years.

Under the Phase II stormwater regulations, a Storm Water Management Plan (SWMP) must be developed for Dickinson, to the extent allowable under state and local law, and implemented according to the requirements of Part III of General Permit TXR040000 for stormwater discharges that reach waters of the United States. The SWMP should be developed to prevent pollution in stormwater to the extent practicable and effectively prohibit illicit discharges to the municipal storm sewer system.

The final rule requires the permittee to choose appropriate best management practices (BMPs) for each of the six minimum control measures (MCMs). In other words, the EPA expects Phase II permittees to tailor their stormwater management plans and their BMPs to fit the particular characteristics and needs of the permittee and the area served by its MS4. Therefore, the operator of a regulated storm sewer system can take advantage of the flexibility provided by the rule to utilize the most suitable MCMs for its MS4.

The TCEQ is expected to issue a General Permit for storm water discharges from Phase II cities in Texas in February 2008. Phase II cities will be required to obtain General Permit coverage through issuance of their own TPDES permit within 90 days of the permit issuance date. According to the draft permit, the City will be given five years to fully implement a Storm Water Management Program (SWMP) once the final permit is issued. The City will be required to submit annual reports to TCEQ during this time.

## **Section 2.2 Scope and Areas of Focus**

The City of Dickinson, as an operator of a small MS4, is required to reduce the discharge of pollutants to water of the State and the United States to the “maximum extent practicable” to protect water quality. The primary purpose of the SWMP is intended to help the City fulfill certain State and Federal water quality requirements and to meet local water resources management objectives. Through the implementation of policies and management practices, Dickinson hopes to reduce the discharge of pollutants to surface waters of the United States.

At minimum, the SWMP must address the following issues:

- Specify Best Management Practices (BMPs) for six minimum control measures (MCMs) and implement them to the “maximum extent practicable”;
- Identify measurable goals for these control measures;
- Develop an implementation schedule for these control measures or frequency of activities; and
- Define the responsible entity to implement these control measures.

With regard to the BMPs, the six MCMs as defined by the EPA are as follows:

- **Public Education and Outreach** – The MS4 is required to develop and implement a Public Education Program, or equivalent outreach activities to distribute information to the community about impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.

- **Public Involvement and Participation** – The MS4 is required to, at a minimum, comply with State/Local notice requirements and is recommended to include the public in developing/implementing/reviewing the SWMP and engage all socioeconomic and ethnic groups.
- **Illicit Discharge Detection and Elimination** – The MS4 must develop, implement, and enforce a program to detect and eliminate illicit discharges. As part of this program, the MS4 must develop a storm water sewer system map with locations of all outfalls, establish an ordinance (or other regulatory mechanism) prohibiting illicit discharges, establish enforcement procedures and actions, detect and address illicit discharges (including illegal dumping), and inform employees, businesses and general public of the program.
- **Control of Construction Site Runoff** – The MS4 is required to develop, implement, and enforce a program to reduce pollutants in runoff from construction activities disturbing greater than or equal to one acre (including smaller sites that are part of a greater common plan of development), with an ordinance (or other regulatory mechanism), sanctions, and procedures. The MS4 must also require construction site operators to implement erosion and sediment control BMPs and to control waste.
- **Post-construction Storm Water Management** – The MS4 is required to develop, implement, and enforce a program for storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre (including smaller sites that are part of a greater common plan of development), with an ordinance (or other regulatory mechanism) addressing post-construction runoff, structural and nonstructural BMPs appropriate to the community, and ensuring adequate long-term operation and maintenance.
- **Pollution Prevention and Good Housekeeping** – The MS4 is required to develop and implement an operation and maintenance program that has the goal of preventing/reducing pollutant runoff from the municipal operations and has an employee training component.

## **Section 3 Program Overview**

### **Section 3.1 City Background**

The City of Dickinson is a culturally diverse community with a population of approximately 20,000 located on Interstate 45 approximately 24 miles south of Houston and 24 miles north of Galveston. Dickinson Bayou bisects the City of Dickinson running from west to east into Galveston Bay. Dickinson Bayou has several tributaries including Dickinson Bayou Tidal, Bensons Bayou, Bordens Gully, Geisler Bayou, and Gum Bayou.

### **Section 3.2 City Organization**

The City of Dickinson is a limited-service municipality providing the highest quality of affordable services to meet the needs of its citizens. The City was incorporated in 1977 and adopted a home rule form of government in 1987. Pursuant to its Home Rule Charter, Dickinson is authorized to establish and enforce its ordinances, including ordinances regulating various storm water elements. Dickinson's Home Rule Charter provides for a hybrid form of government combining characteristics of a mayor-council form with a council-manager form. Dickinson is governed by a mayor and six council members that are elected for a term of three years with no term limits. However, the Council appoints a City Administrator who acts as chief executive officer of the City. The Mayor and City Council are responsible for establishing the legislative policies, goals and objectives of the City, and the City Administrator is responsible for implementing those policies, goals and objectives. The City Administrator administers all City programs and oversees the day-to-day operations of the City. All department heads are ultimately responsible to the City Administrator.

### **Section 3.3 Key Personnel**

The City of Dickinson is uniquely positioned to implement a stormwater program due to existing personnel and resources available in the various City departments. Existing City departments currently performing functions generally associated with the implementation of a stormwater program include Public Works, Community Development, Code Enforcement, Public Safety, and the City Administrator's Office.

In addition, the City of Dickinson partners with Keep Dickinson Beautiful, a nonprofit organization, and Galveston County Water Control and Improvement District No. 1 to assist some of its environmental public outreach and education programs. Through its Reduce, Reuse



and Recycle Program, Keep Dickinson Beautiful helps motivate citizens to improve their neighborhoods and create a healthier, safer, and more livable community.

The existing City departments have the ability to perform most of the elements comprising a comprehensive stormwater program. However, the City will evaluate the need to create a Stormwater Management Team so that City employees in participating departments can remain actively involved in developing and implementing the program. If determined to be appropriate, this team would be established in Permit Year 1 and would meet monthly or quarterly, as needed, throughout the permit term. The SWMP Coordinator in the Public Works Department would facilitate these meetings and coordinate SWMP activities.

### **Section 3.4 City Drainage Operations**

The City of Dickinson recognizes the importance of consistent, uniform, and integrated management of storm water operations, design standards, and capital improvements within its jurisdiction.

The Street/Drainage Division within the Public Works Department is responsible for the administration and operation of the City's public streets, sidewalks, bridges, and drainage system.

The Street/Drainage Division infrastructure responsibilities include:

- 64 miles of streets
- 26 acres of right-of-way and drainage easements mowed
- 21 miles of sidewalks
- 42 miles of storm /open ditches
- 15 bridges

The Street Division is responsible for contract development, administration and inspection of street sweeping services provided to major collector streets and intersections of City streets. The primary objective of the street-sweeping program is to provide routine sweeping and cleaning of high traffic areas throughout the City where accumulations of debris occur.

The Drainage Division is responsible for the mowing of approximately 26 acres of public rights-of-way (ROW) and drainage easements throughout the City. Rough cut mowing is done 11 times throughout the year, and groom cut mowing is done on an as-needed basis.

The Street/Drainage Division is responsible for the inspection and maintenance of 42 miles of storm sewer lines and open ditches. This Division is also responsible for inspection and cleaning

22,728 feet of boxed culverts and 126,639 feet of storm inlets during and after rain events. Additionally, the Division is responsible for maintaining a positive flow for all open ditches. Periodic re-grading is required when the ditches become overly silted and stagnant.

### **Section 3.5 MS4 Jurisdictional Overlap**

The City of Dickinson’s drainage operations have jurisdictional overlap with several drainage districts – Galveston County Drainage District No. 1 and Galveston County Drainage District No. 2 (“Drainage Districts”). These Drainage Districts are partially or fully located within the corporate City limits of Dickinson and have similar authority and responsibility over drainage operations within their boundaries as the City. These drainage districts are considered MS4s and are subject to the NPDES storm water requirements. The City will coordinate with the drainage districts and work through the political ramifications of these overlays to minimize duplication of efforts in Phase II compliance.

Stormwater and drainage activities in Dickinson are implemented through the City of Dickinson and the Drainage Districts. Funding for each Drainage District’s activities is approved by its respective Drainage District Board. The primary mission of the Drainage District is to maintain the drainage channels where the drainage district has easements in their existing flow conditions. The Drainage District accomplishes this through appropriate structural repairs and vegetation control. Secondly, the Drainage District provides a review of plats and drainage plans of new development to be approved by the Galveston County Commissioners Court to assure the elimination of an adverse drainage impact in current and future residents.

Each Drainage District’s primary activities are associated with flood control in Galveston County. Neither Drainage District owns or maintains storm sewer systems or drainage facilities other than channels. Each Drainage District is well equipped to maintain large drainage channels and each does so today. However, neither is currently well-positioned to be the primary entity for implementing a comprehensive stormwater program including all the Minimum Control Measures (MCMs).

While the Drainage Districts are considered an MS4 and subject to the NPDES stormwater requirements, and each plays an important role in the overall development of a stormwater program for Dickinson, their organizational structure and overall mission is not considered to be an efficient model for developing a comprehensive stormwater program. The Drainage Districts should be included in any discussions concerning a program in Dickinson and potentially could provide some service to the program, especially related to maintenance, if needed in the future.

## Section 3.6 NPDES Phase II Minimum Control Measures

The Plan describes a menu of BMPs to address pollutants and their causes identified as the most prevalent or problematic in the watersheds served by Dickinson by implementing the following minimum control measures:

### *Public Education and Outreach*

- The MS4 is required to develop and implement a Public Education Program, or equivalent outreach activities to distribute information to the community about impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.

### *Public Involvement and Participation*

- The MS4 is required to at minimum comply with State/Local notice requirements and is recommended to include public in developing/implementing/reviewing the SWMP and engage all socioeconomic and ethnic groups.

### *Illicit Discharge Detection and Elimination*

- The MS4 must develop, implement, and enforce a program to detect and eliminate illicit discharges including:
  - Storm water sewer system map with locations of all outfalls
  - Ordinance (or other regulatory mechanism) prohibiting illicit discharges
  - Enforcement procedures and actions
  - Detect and address illicit discharges (including illegal dumping)
  - Inform employees, businesses and general public

### *Control of Construction Site Runoff*

- The MS4 is required to develop, implement, and enforce a program to reduce pollutants in runoff from construction activities disturbing greater than or equal to once acre (including smaller sites that are part of a greater common plan of development), with an ordinance (or other regulatory mechanism), sanctions, and procedures. The MS4 must also require construction site operators to implement erosion and sediment control BMPs and to control waste.

### *Post-construction Storm Water Management*

- The MS4 is required to develop, implement, and enforce a program for storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre (including smaller sites that are part of a greater common plan of development) with an ordinance (or other regulatory mechanism to address post-construction runoff, structural and nonstructural BMPs appropriate to the community, and ensure adequate long-term operation and maintenance.

### *Pollution Prevention and Good Housekeeping*

- The MS4 is required to develop and implement an operation and maintenance program that has the goal of preventing/reducing pollutant runoff from the municipal operations and has an employee training component.

For the SWMP, Dickinson must identify BMPs that will be implemented over the five year permit term, implementation schedule, responsible persons, and measurable goals by which the permittee will self-report progress in an Annual Report to the TCEQ. Existing programs or BMPs may also be used to fulfill the requirements of the general permit.

## **Section 3.7 Capacity and Authority of MS4s to Implement and Enforce MCMs and BMPs**

According to the EPA regulations at 40 CFR 122.34 (a), the MS4 permit will require, at a minimum, that the MS4 develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4, to the maximum extent practicable, to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act. The MCMs that have specific enforcement requirements are:

- *Illicit Discharge Detection and Elimination* – The illicit discharge MCM requires the MS4 to develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4. The MS4 must prohibit nonstormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions and develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, into the storm sewer system.
- *Construction Site Stormwater Runoff Controls* – The construction site runoff MCM requires the MS4 to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre (or less than an acre if it is part of a larger common plan of development). The MS4 must have a regulatory mechanism to require

erosion and sediment controls, as well as sanctions to ensure compliance. Examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements, and/or permit denials for noncompliance

- *Post-Construction Stormwater Management in New Development and Redevelopment* – The post-construction MCM requires the MS4 to develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development). The program must ensure that controls are in place that would prevent or minimize water quality impacts. The strategy must include a combination of structural and nonstructural controls.

While an MS4 only has to develop an enforcement program to the extent allowable by state or local law, they must have a program that will reduce the discharge of pollutants from the MS4, to the maximum extent practicable, protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act. This will require effective enforcement mechanisms.

## **Section 4 Minimum Control Measures (MCMs)**

## MCM 1 Public Education and Outreach

**40 CFR 122.34(b)(1) – Implement a public education program to distribute educational materials to the community of contact, equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps the public can take to reduce pollutants in storm water runoff.**

### Selected BMPs for Public Education and Outreach

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.1 City Website	Use city's website to post storm quality related information and the adopted SWMP to general public	Post one storm water quality related message per permit year  Post the City's SWMP on the City's website	Public Works  Public Works	Years 1-5  Year 1
1.2 Book Covers or Homework Folders	Distribute book covers or homework folders for area students with storm water quality related messages	Annually distribute book covers or home work folders to Dickinson Independent School District for students during school year	City of Dickinson/ Galveston County Storm Water Collaborative	Years 2 -5
1.3. Utility Bill Insert	Raise awareness of storm water issues for citizens by placing informational inserts in the water utility bill	Include one (1) water utility bill insert during each permit year.	City of Dickinson/Galveston County Water Control & Improvement District No. 1	Years 1-5
1.4 Articles in Newsletter	Use city's newsletter to provide storm water quality related information that is of interest to general public	Include one (1) storm water related message in city newsletter per permit year	City of Dickinson	Years 2-5

1.5 Anti-Littering Informational Brochure	Raise awareness of littering and its impact on storm water issues for citizens	Distribute the Law Enforcement Anti-Littering brochure designed and printed by Houston-Galveston Area Council of Governments	City of Dickinson	Years 2 & 4
1.6 Construction Site Storm Water Public Education Program	A public education program designed to provide information to construction site operators regarding the requirements of the Construction General Permit and MS4 General Permit ( Also satisfies MCM3)	Add interest links concerning construction site BMPs and Storm Water to the City website  Create fact sheets for developers regarding requirements for permitting and pollution prevention	Community Development	Year 2  Year 3-5



## MCM 2 Public Involvement and Participation

**40 CFR 122.34(b) (2) – At a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program. EPA recommends that the public be included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups.**

### Selected BMPs for Public Involvement and Participation

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.1 Legal Public Notice	Comply with federal, state, and local public notice requirements when implementing the SWMP	Follow public notice requirements specified in general permit  Maintain copies of legal public notice	City Secretary  City Secretary	Year 2  Years 2-5
2. 2 Trash Bash	Dickinson Bayou clean up	Conduct one time per year during each permit year	Keep Dickinson Beautiful	Years 1-5
2.3 Dickinson Clean-Up	Neighborhood clean-up	Conduct one time per year during each permit year	Keep Dickinson Beautiful	Years 1-5
2.4 Public Speaking Engagements	Keep citizens and other stakeholders involved in the decision making process for managing the SWMP	Make one presentation to a community group each permit year.	City of Dickinson/ Galveston County Health District	Years 1-5
2.5 Wetlands Restoration Project	Wetlands restoration project for Dickinson Bayou	Conduct one (1) wetland restoration project each permit year	City of Dickinson/Keep Dickinson Beautiful	Years 1-5

### MCM 3 Illicit Discharge Detection and Elimination

40 CFR 122.34(b) (3) – Develop, implement, and enforce a program to detect and eliminate illicit discharges into your small MS4. Develop a storm sewer system map showing the location of all outfalls and the names of the locations of all waters of the U. S. that receive discharges from those outfalls. To the extent allowable under state or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement a plan to detect and address non-storm water discharges including illegal dumping to your system. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

#### Selected BMPs for Illicit Discharge Detection and Elimination

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
3.1 Illicit Discharge Ordinance	Develop an ordinance to effectively prohibit non-storm water discharges into the storm sewer system and implement enforcement procedures and actions	Evaluate existing ordinances that may require modification  Develop draft ordinance  Finalize ordinance and implement	City Administration/ City Council	Year 1  Year 2  Years 3-5
3.2 Update database of MS4	Update map of the locations of all outfalls and the names of all receiving U.S. waters	Review and update drainage system map to include new growth during each permit year	Water Control and Improvement District/ City of Dickinson	Years 2-5
3.3 Illicit discharge detection link on City website	Provide a method for citizens to report illegal dumping and suspicious discharges <i>(Also satisfies MCM1, MCM2, MCM4)</i>	Establish a link on the City’s website.  Advertise link by placement of one ad in the local newspaper annually and an one ad in the newsletter annually	Code Enforcement/ Public Works/	Year 1  Years 1-5

3.5 Illicit Discharge Awareness Campaign for City Employees	Utilize training developed by Galveston County Health District for informing City Employees ( <i>Also satisfies MCM6</i> )	Acquire and format stormwater training materials and determine an effective means of distribution  Distribute materials to city employees one time per permit year	City of Dickinson/ Galveston County Health District	Year 2  Years 3-5
3.6 Illicit Discharge Awareness Campaign for Businesses and General Public	Utilize training developed by Galveston County Health District for informing businesses and general public	Acquire and format stormwater training materials and determine an effective means of distribution  Distribute materials to potential polluting business and general public one time per permit year.	City of Dickinson/ Galveston County Health District/ Keep Dickinson Beautiful	Year 2  Years 3-5
3.7 Illegal Dumping Clean-Up	Cleaning up debris in a timely fashion reduces the amount of illegal dumping. City will investigate all illegal dumping complaints	Continue efforts to remove all illegally dumped debris	Code Enforcement/ Public Works/ Fire Marshall/ Law Enforcement	Years 1-5
3.8 Oil and Filter Recycling	Maintenance and recycle fluids from Public Works vehicles ( <i>Also satisfies MCM 6</i> )	Successfully recycle 50 gallons of oil and 20 filters per year during each permit year	Public Works	Years 1-5

## MCM 4 Control of Construction Site Runoff

40 CFR 122.34 (b)(4) – Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Program must include: the development and implementation of (at a minimum) an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, requirements for construction site operators to implement appropriated erosion and sediment control BMPs, requirements for construction site operators to control waste at the construction site, procedures for site plan review which incorporate consideration of potential water quality impacts, procedures for receipt and consideration of information submitted by the public.

### Selected BMPs for Construction Site Runoff

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
4.1 Informational Brochure for Construction Personnel	Search available literature or develop construction site storm water quality management brochure	Distribute brochures during the application process necessary to obtain a building and or land use permit	Community Development	Years 2-5
4.2 Review Infrastructure Plans and Designs	Require designers to include design of erosion control measures in plans and specifications in all projects in compliance with and requiring compliance with the TPDES General Permit and all other state regulations	Continue to require erosion control plans in plan submittals	Community Development	Years 1-5
4.4 Storm Water Pollution Prevention during construction	A certification letter shall be required from the contracting authority that a SWPPP has been prepared in compliance with all local and state regulations	Require submission of a certification statement and copy of the NOI from the contracting authority before a construction permit can be issued	Community Development/ Code Enforcement	Years 1-5

4.5 Inspect Erosion Control Measures	Inspection of the infrastructure and effectiveness of the required erosion control measures used on applicable construction projects	Continue to inspect general erosion control measures during inspections  Document any violations and provide follow-up inspections ensuring enforcement of permit provisions	Community Development/ Public Works	Years 1-5
4.6 Storm Drain Markers	Require builders and developers to utilize storm drain markers in all new development	Ensure that all new development utilizes appropriate storm drain markers during each permit year	Public Works	Years 1-5

## MCM 5 Post-Construction Storm Water Management

40 CFR 122.34 (b)(5) – Develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects that are less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community. Use an ordinance or other regulatory mechanism to address post-construction runoff. Ensure adequate long-term operation and maintenance of BMPs.

### Selected BMPs for Post-construction stormwater management

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
5.1 Development Review Process	All development plans are reviewed for compliance with floodplain requirements, for adequacy of infrastructure design for drainage, and the use of a detention pond	Continue to review all development plans for mitigation of impact	Community Development	Years 1-5
5.2 Post-Construction Storm Water Management Regulations	Review and revise, if necessary, City's regulations to address storm water runoff from new development and redevelopment.	Evaluate existing regulations that may require modification	Public Works/Community Development/Code Enforcement	Year 2
		Develop draft regulations and modify existing regulations as needed		Year 3
		Adoption of regulations by City Council		Year 4
		Implement regulations		Year 5
	Educate and inform public of adopted regulations			Year 5

<p>5.3 Post-Construction Development Review Procedures</p>	<p>Review and revise, if necessary, City's development review procedures in order to reflect the adoption of any post-construction storm water management regulations for new development and redevelopment</p>	<p>Review and revise existing pollution prevention review procedures as needed  Implement updated procedures  Review submitted plans</p>	<p>Public Works/Community Development</p>	<p>Years 4-5  Year 5  Year 5</p>
<p>5.4 Evaluation of Regional Detention Ponds</p>	<p>Evaluate existing and proposed regional detention ponds for potential modifications that may incorporate storm water quality features.</p>	<p>Evaluate the need for an ordinance or regulatory mechanism requiring the maintenance of detention ponds  Adopt an ordinance, if deemed necessary  Revise pollution prevention design standards to include storm water quality considerations in the design of regional detention ponds  Evaluate the need for a program to monitor detention ponds  Implement a detention pond monitoring program, if deemed necessary</p>	<p>Public Works/Community Development</p>	<p>Years 4-5  Year 5  Year 5  Year 5  Year 5</p>

## MCM 6 Pollution Prevention and Good Housekeeping

40 CFR 122.34 (b) (6) – Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

### Selected BMPs for Pollution Prevention and Good Housekeeping

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
6.1 Storm Sewer Cleaning	Clean debris from storm drains	Review current operations and procedures and prioritize locations on an as-needed basis	Public Works	Years 1-5
6.2 Street Sweeping	Street sweeping will capture pollutants from street surfaces before they are washed into the storm drainage system and discharged into local waterways	Review current operations and procedures and prioritize locations on an as-needed basis  Contract for street sweeping services to conduct street sweeping two times per permit year	Public Works	Years 1-2  Years 1-5
6.3 Illicit Discharge Awareness Campaign for City Employees	Utilize training developed by Galveston County Health District for informing City Employees ( <i>Also satisfies MCM3</i> )	Acquire and format storm water training materials and determine an effective means of distribution  Distribute materials to city employees one time per permit year	City of Dickinson/ Galveston County Health District	Year 2  Years 3-5



6.4 Oil and Filter Recycling	Maintenance and recycle fluids from Public Works vehicles ( <i>Also satisfies MCM 3</i> )	Successfully recycle 50 gallons of oil and 20 filters per year during each permit year	Public Works	Years 1-5
6.5 Municipal Operations and Facility Survey	Assess the need for pollution prevention policies and procedures at various City facilities to determine nature of activities performed at each facility, the appropriate storm water management BMPs, and a means of BMP implementation	Perform a municipal operations and facility survey Develop policies and procedures to implement storm water BMPs as deemed necessary in the municipal operations and facility survey	Public Works  All Departments	Years 2-3  Years 2-5
6.6 Vehicle and Equipment Washing	Evaluate operation and maintenance procedures of vehicle and equipment wash facility to reduce runoff of pollutants from facility	Evaluate need to install catch basins at City fire stations  Develop and implement policies and procedures detailing the vehicle and equipment washing requirements necessary to protect water quality	Public Works/Public Safety  Public Works	Year 2  Years 2-5