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EXECUTIVE SUMMARY

On August 13, 2007, the Texas Commission on Environmental Quality (TCEQ) issued Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 for stormwater discharges from Municipal Separate Storm Sewer System (MS4) Phase II cities in Texas. The City of League City obtained permit coverage within 180 days of the permit issuance, developed a five year Stormwater Management Program (SWMP), and summarized all stormwater activities in permit required annual report submittals to the TCEQ. The permit expired on August 13, 2012.

On December 13, 2013, the TCEQ reissued TPDES General Permit No. TXR040000 with new requirements and measures for issuing permits based on the 2010 U.S. Census Urbanized Areas (UA). As a previous permit holder, the City is required to obtain permit coverage and will be required to reduce the discharge of pollutants to Waters of the United States to the “maximum extent practicable” (MEP) in order to protect water quality. At a minimum, the permit will require a SWMP that addresses the following issues:

- Identify and implement Best Management Practices (BMPs) required for all appropriate minimum control measures (MCMs) as deemed by the City’s population within the Census defined UA;
- Identify measurable goals for the control measures;
- Develop an implementation schedule for the control measures; and
- Define the responsible entity to implement the control measures.

Galveston County Municipal Utility Districts (GCMUDs) 43, 44, 45 and 46 are local in-City MUDs that desire to adopt League City’s SWMP as applicable to them. In order to obtain permit coverage, the City and GCMUDs must develop and submit a SWMP, Notice of Intent and fee an application fee within 180 days of the issuance of the Small MS4 General Permit. Each entity will file a separate Notice of Intent (NOI) for their permit coverage.

According to the revised TPDES General Permit, the GCMUDs are considered Level 2 Small MS4s (non-traditional MS4s) while League City is considered a Level 3. This SWMP describes in detail the BMPs the City of League City has developed to address each of the required MCMs. Each of the GCMUDs has indicated their involvement in the SWMP. An implementation schedule has been included for each measurable goal and will show SWMP implementation over the course of the five-year permitting term. The City has a coordinator that is leading this effort and has support from the Public Works Director in coordination with all City departments. The selected BMPs were based on an evaluation of the previous SWMP and permitting term, advancements in communications and new requirements for impaired water bodies and total maximum daily loads (TMDLs).
1.0 OVERVIEW

1.1 CITY BACKGROUND

1.1.1 City Organization

The City of League City is a community located in northern Galveston County and southern Harris County. The area consists of coastal plains and experiences frequent rainfall, flat topography, and sandy clay soils. League City experienced a population increase of approximately 83.87% between the 2000 and 2010 U.S. Census from 45,444 to 83,560 residents.

League City was incorporated in 1962 as a Home Rule City and under the provisions of the City Charter, subject only to the limitations imposed by the Texas State Constitution and by the Charter. The City Council is the principal legislative body of the City. The City Council is comprised of the Mayor and seven council members, all elected to three (3) year terms with no member serving more than three (3) consecutive terms. The City Council appoints the City Manager, who shall be the chief administrative and executive officer of League City.

The major departments in League City that will be key to implementing the SWMP include Planning and Development, Public Works, Parks and Recreation, and the office of the City Manager. The Public Works Department includes Engineering, Garbage & Recycling, Line Repair, Streets & Stormwater, Wastewater, Purchasing and Water Production.

1.1.2 Clear Creek Watershed

The City of League City drains to the Clear Creek Watershed, specifically, Clear Creek Tidal (segment 1101), Magnolia Creek (segment 1101A), Robinson Bayou (segment 1101D), an unnamed tributary of Clear Creek Tidal (segment 1101E), Clear Lake (segment 2425), and Jarbo Bayou (segment 2425B). The Clear Creek Watershed is approximately 180 square miles in area, of which approximately 40 percent is within Brazoria County, 35 percent within Harris County, 20 percent within Galveston County, and 5 percent within Fort Bend County. The eastern and central portions of the watershed are mainly urban and residential areas with some commercial and industrial, while the western and southern portions are mostly rural and agricultural. Figure 1-1 shows the watershed map for League City, including the Clear Creek watershed.

In the Houston-Galveston region, bacteria are the most common pollutant of concern. On September 10, 2008, the TCEQ adopted nine TMDLs for bacteria in Clear Creek and its tributaries. Clear Creek contains nine impaired segments, consisting of two main segments and seven tributaries. The TCEQ used the TMDLs to determine the amount of a particular pollutant that a water body can receive and still meet applicable water quality standards and to estimate how much the pollutant load must be reduced to comply with water quality standards.

The Implementation Plan (I-Plan) required to address the TMDLs is part of a larger regional I-Plan developed by the Bacteria Implementation Group (B.I.G.), a stakeholder group convened by the TCEQ. The B.I.G. consists of members from City and County governments, resource agencies, business and agricultural interest, conservation organizations, watershed groups, and
the public. The TCEQ approved the I-Plan on January 30, 2013. The I-Plan describes various implementation activities and management measures, a schedule for implementing activities, a description of the legal authority under which the participating agencies may require certain implementation activities, a follow-up tracking and monitoring plan, a list measurable outcomes, and communication strategies to disseminate information to stakeholders and interest parties. The goal of the I-Plan is to restore impaired water bodies to standards allow for primary contact recreation use.

### 1.1.3 Dickinson Bayou Watershed

The City of League City also drains to the Dickinson Bayou Watershed, specifically, Dickinson Bayou Tidal (segment 1103), Bensons Bayou (segment 1103A), Bordens Gully (segment 1103B), Geisler Bayou (segment 1103C), Gum Bayou (segment 1103D), Cedar Creek (segment 1103E), and Dickinson Bayou Above Tidal (segment 1104). The Dickinson Bayou Watershed covers approximately 106 square miles and lies in Brazoria County and Galveston County. Dickinson Bayou contains tidal and non-tidal waters that drain into Dickinson Bay and then into Galveston Bay.

In Dickinson Bayou and its tributaries, routine monitoring have frequently detected elevated levels of bacteria. As a result, the TCEQ adopted eight TMDLs for indicator bacteria in Dickinson Bayou and three tidal tributaries on February 8, 2012. The ultimate goal became to reduce bacteria concentrations to levels that meet the criteria defined in the state’s water quality standards to support contact recreation.

The Dickinson Bayou Watershed Partnership (DBWP) is a group of citizens, private organizations, local businesses, and federal, state, and local governments. These stakeholders work together to promote and protect the health of Dickinson Bayou and the watershed. The DBWP was the group that advised the TCEQ on the development of the TMDLs and the I-Plan approved by the TCEQ on January 15, 2014.

The Implementation Plan identifies responsible parties, technical and financial needs, monitoring and outreach efforts, and a schedule of activities for each management measure and control action. Seven management measures and four control actions were developed to guide activities to achieve the stated water quality goals. Figure 1-1 shows the watershed map for League City, including the Dickinson Bayou watershed.

### 1.1.4 MS4 Jurisdictional Overlap and In-City Municipal Utility Districts

The City of League City’s drainage operations have jurisdictional overlap municipal utility districts (MUDs), TxDOT, Harris County, and Galveston County. Several MUDs are partially or fully located within the corporate city limits of League City. These entities have similar authority and responsibility over drainage operations within their boundaries as the City. MUDs are political subdivisions of the State authorized by the TCEQ to provide water, sewage, and drainage services to residents within their boundaries. In addition, MUDs are classified as non-traditional MS4s (Level 2 Small MS4s) and are subject to the state and federal stormwater requirements.
Harris County and Galveston County are also classified as MS4 operators, subject to the state and federal stormwater requirements. Stormwater and drainage activities in Harris County are implemented through the Harris County Flood Control District. Galveston County stormwater and drainage activities are divided between the Galveston County Consolidated Drainage District, Galveston Co. Drainage District No. 1, and Galveston Co. Drainage District No. 2. Only the Galveston County Consolidated Drainage District overlaps with the corporate city limits of League City. The various drainage districts maintain the drainage channels in their existing flow conditions. The districts also provide a review of plats/drainage plans of new development for approval by the respective Commissioners Courts to assure the elimination of any adverse drainage impacts on current and future residents.

In order to prevent duplication of efforts, the City will coordinate with these entities to combine resources and maximize program effectiveness. Galveston County MUDs (GCMUDs) No. 43, 44, 45, and 46 have expressed interest in being included in the League City SWMP as a Level 2 Small MS4; where each entity will submit their own NOI. As time passes, other MUDs within League City limits may opt to adopt the SWMP as well. The following is a brief description of each GCMUD.

**Galveston County MUD 43:**
- Created: June 16, 2004
- Board Members: 5
- Receiving Water Bodies:
  - The current developed land drains to Robinson Gully. Future development will also drain to Robinson Gully.
- Location Served:
  - The MUD covers approximately 435 acres in eastern League City. The MUD is bounded on the east by South Shore Harbour Subdivision, on the south by S.H. 96 and on the west by Louisiana St and FM 270.
- Facilities Maintained:
  - The MUD owns and maintains the detention/amenity basins within the MUD boundaries.

**Galveston County MUD 44:**
- Created: August 10, 2004
- Board Members: 5
- Receiving Water Bodies:
  - The current developed land drains to Robinson Gully. Future development will also drain to Robinson Gully.
- Location Served:
  - The MUD covers approximately 437 acres in eastern League City. The MUD is bounded on the east by FM 1266, on the south by FM 646, on the west by Dickinson Ave. and on the north by S.H. 96 and Hewitt St.
- Facilities Maintained:
  - The MUD owns and maintains the detention/amenity basins within the MUD boundaries.
Galveston County MUD 45:
- Created: October 21, 2004
- Board Members: 5
- Receiving Water Bodies:
  - The current developed land drains to the main stem of Gum Bayou. Future development will drain to the east fork of Gum Bayou.
- Location Served:
  - The MUD covers approximately 915 acres in eastern League City. The MUD is bounded on the west by FM 1266, on the south by FM 646, on the north by S.H. 96, and is bisected by Gum Bayou.
- Facilities Maintained:
  - The MUD owns and maintains the detention/amenity basins within the MUD boundaries.

Galveston County MUD 46:
- Created: October 28, 2004
- Board Members: 5
- Receiving Water Bodies:
  - The current developed land drains to Gum Bayou. Future development will also drain to Gum Bayou.
- Location Served:
  - The MUD covers approximately 483 acres in eastern League City. The MUD is located southwest of the intersection of S.H. 96 and S.H. 146.
- Facilities Maintained:
  - The MUD owns and maintains the detention/amenity basins within the MUD boundaries.

Figure 1-1 shows the locations and boundaries of the four MUDs mentioned as part of this SWMP.
1.2 STORMWATER MANAGEMENT

1.2.1 Introduction to Stormwater Management

Stormwater management is an essential component of community infrastructure and serves to provide both increased convenience and protection of lives and property. A properly designed system will detain and carry away runoff from rainfall events while allowing the movement of vehicles to homes and businesses. The City’s storm sewer system was designed to capture and transport rainwater runoff into local creeks and rivers to prevent street and neighborhood flooding.

Active management of stormwater by local jurisdictions can protect public health and create a more attractive community. Drainage systems influence the water quality of the natural waterways that receive the area’s rainfall runoff. Creeks, rivers, and bays provide wildlife habitat and support commercial and recreational fisheries, boating and ecotourism. They are fundamental to the quality of life in this region.

Stormwater runoff can cause water pollution by carrying pollutants into the local water supply. Providing League City with a stormwater management system that allows sustainable community growth is a continuing challenge. It involves educating residents, setting minimum standards, planning for future detention basins and drainage channels, working with private development interests, coordinating with governmental agencies, and maintaining the efficiency of the existing system of culverts, pipes, and other structures.

Recognizing that stormwater system development should be guided by adopted policies and a comprehensive plan, the City of League City has developed this five-year SWMP to address the issue.

1.2.2 Benefits of Stormwater Management

By effectively managing stormwater runoff, local governments and MUDs can protect public health, spur economic development, and create a more attractive community. Many techniques local governments use to address stormwater can also double for recreational purposes. Natural vegetation buffers preserved along rivers and other bodies of water can provide ideal locations for hiking trails. Stormwater detention ponds can also be utilized as bird-watching hot spots. Open spaces preserved for drainage can be used for soccer fields, golf courses, and picnic spots. There is a wide variety of opportunities.
1.2.3 Municipal Facilities Subject to TPDES Permits

The City of League City owns and operates a variety of facilities that are subject to TPDES stormwater regulations.

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<td>CITY OF LEAGUE CITY MS4</td>
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<tr>
<td>CITY OF LEAGUE CITY MUNICIPAL SOLID WASTE PROCESSING FACILITY</td>
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<td>CITY OF LEAGUE CITY STREET AND STORMWATER DEPARTMENT</td>
<td>1535 DICKINSON AVE LEAGUE CITY TX 77573 5443</td>
<td>TXR05AA23</td>
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<td>COUNTYSIDE/BAY RIDGE WASTEWATER TREATMENT PLANT</td>
<td>300 W WALKER ST LEAGUE CITY TX 77573 3837</td>
<td>TX0026239; TX0071447; WQ0010568007; WQ0010568003</td>
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<td>DALLAS SALMON WASTEWATER TREATMENT PLANT</td>
<td>703 N WISCONSIN AVE LEAGUE CITY TX 77573 2541</td>
<td>TXR05Q647; R10568005; TX0085618; WQ0010568005</td>
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<td>LEAGUE CITY POLICE DEPT - LEAKING PETROLEUM STORAGE TANKS REMEDIATION</td>
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<td>SOUTHWEST WATER RECLAMATION FACILITY</td>
<td>1220 S MAPLE LEAF DR LEAGUE CITY TX 77511</td>
<td>TXR05BR53; R10568008; TX0133043 - Pending; WQ0010568008 - Pending</td>
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1.3 STORMWATER REGULATION

1.3.1 History of Stormwater Regulation

In 1972, Congress amended the Clean Water Act (CWA) to prohibit the discharge of pollutants 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 detectable sources of water pollution such as municipal sewage and industrial process wastewater and was successful in improving water quality. However, the NPDES program was not addressing other significant sources of water quality impairment – nonpoint sources such as runoff from agricultural and forestry operations, and stormwater runoff.

In 1987, Congress, once again, amended the CWA in order to address the additional sources of water quality impairment throughout the United States. In response to the 1987 amendments to the CWA, the U.S. Environmental Protection Agency (EPA) initiated a comprehensive, two-phase approach to stormwater quality. On November 15, 1990, the EPA published Phase I of the National Pollutant Discharge Elimination System (NPDES) program requiring permit coverage
for stormwater discharges from medium and large MS4s with populations of 100,000 or more and several categories of industrial activities, including construction sites that disturb five or more acres of land. Phase I of the NPDES program addresses sources of stormwater runoff with the greatest potential to impact water quality. On December 8, 1999, the EPA published Phase II of the NPDES program requiring that small MS4s with populations less than 100,000 residents served within the U.S. Census Bureau’s defined UA and construction activities disturbing between one and five acres of land obtain permit coverage.

In response to the NPDES permit requirements, the EPA delegated regulatory authority in Texas to the State of Texas, and with the authority of the Texas Water Code and the CWA, the TCEQ assumed the authority to issue MS4 stormwater permits. As a regulatory entity, the TCEQ developed the TPDES program, a program patterned after the federal NPDES stormwater program, which now has federal regulatory authority over discharges to waters of the United States.

On August 13, 2007, the TCEQ issued TPDES General Permit No. TXR040000 for stormwater discharges from Phase II cities in Texas. The City of League City obtained permit coverage within 180 days of the permit issuance, developed a five-year SWMP, and summarized all stormwater activities in permit required annual report submittals to the TCEQ. The permit expired on August 13, 2012.

After a several delays, the TCEQ reissued TPDES General Permit No. TXR040000 on December 11, 2013. The new permit was based off the 2010 U.S. Census updates to the UA maps. The new permit requires permittees to seek coverage on a tiered basis according to the population of residents served under the UA. The four levels, based on population in the UA, are as follows:

- Level 1: Up to 10,000;
- Level 2: 10,000 to 40,000 (including non-traditional MS4s);
- Level 3: 40,000 to 100,000;
- Level 4: More than 100,000.

Under the new permit, the City of League City is considered a Level 3 Small MS4. In accordance with the permit requirements, Phase II cities are required to obtain permit coverage within 180 days of the permit issuance date and will be given five years to fully implement a SWMP. The City will also be required to submit annual reports to the TCEQ during the permit period. Also in the updated permit and expansion of the UA, GCMUDs 43, 44, 45 and 46 were identified as needing permit coverage under the new general permit. These entities plan to adopt the City’s SWMP and submit their own NOIs for permit coverage. According to the reissued permit, MUDs are considered “non-traditional MS4s” and qualify as Level 2 Small MS4s. Therefore the GCMUDs will be considered Level 2 Small MS4s and will only be responsible for the requirements listed in the General Permit for Level 2 Small MS4s.

League City and the GCMUDs qualify as needing coverage under the TPDES general permit for small MS4s and are required to apply for permit coverage. This report describes recommended
BMPs that will be incorporated into the SWMP and implemented by the City of League City and the GCMUDs within the TPDES permit period.

1.3.2 TPDES Phase II MCMs

The TPDES permit requires the permittee to select *appropriate* BMPs as a Level 3 Small MS4s for each of the required MCMs. In other words, the TCEQ 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. The GCMUDs are considered Level 2 Small MS4s and plan to participate in this SWMP with the BMPs and goals that apply only to Level 2 Small MS4s.

To qualify for permit coverage, the MS4 operator must develop a SWMP that describes the BMPs the City will develop and implement to minimize the discharge of pollutants from the MS4 to the MEP. The six MCMs defined by the TCEQ that are applicable to the GCMUDs as Level 2 Small MS4s and City of League City as Level 3 Small MS4 permit holders are as follows:

- **Public Education, Outreach, and Involvement** – The MS4 is required to develop, implement, and maintain a public education and outreach program to distribute information to the community about impacts of stormwater discharges on water quality, the hazards associated with illegal discharges and the improper disposal of waste, and steps the public can take to reduce pollutants in stormwater runoff. In addition, the MS4 operator must implement a public involvement/participation program to include opportunities for constituents within the MS4 area to participate in the SWMP development and implementation.

- **Illicit Discharge Detection and Elimination (IDDE)** – 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 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 the general public of the program.

- **Construction Site Stormwater Runoff Control** – The MS4 is required to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities disturbing greater than or equal to one acre of land (including smaller sites that are part of a larger common plan of development), through the development of an ordinance (or other regulatory mechanism) to require erosion and sediment controls, as well as sanctions to ensure compliance, and procedures for site plan and public comment review. The MS4 must also require construction site operators to implement erosion and sediment control BMPs and to control waste.

- **Post-construction Stormwater Management in New Development and Redevelopment** – The MS4 is required 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 of land (including smaller sites that are part of a larger common
plan of development), through the development of an ordinance (or other regulatory mechanism) to address post-construction runoff, the development and implementation of structural and non-structural BMPs appropriate to the community, and procedures to ensure adequate long-term operation and maintenance.

- **Pollution Prevention and Good Housekeeping for Municipal Operations** – The MS4 is required to develop and implement an operation and maintenance program that has the goal of preventing or reducing pollutant runoff from municipal operations.

- **Authorization for Municipal Construction Activities** – As an optional MCM, the MS4 may develop a MCM for municipal construction activities as an alternative to the MS4 operator seeking coverage under TPDES general permit TXR150000 for each municipal construction activity performed. The City has opted not to participate in this MCM.

In the SWMP, the permittees must identify the BMPs implemented during the five-year permit term, a schedule for the implementation of the selected BMPs, the responsible persons accountable for the BMP implementation, and the measurable goals by which the permittee will self-report progress in an Annual Report to the TCEQ. Existing programs or BMPs may be used to fulfill the requirements of the general permit. In the implementation schedule following each MCM section of this SWMP, the City identifies their key city departments applicable for the implementation of the SWMP. The GCMUDs have identified themselves primarily in the MCM sections of the SWMP and in the implementation schedule by name.

In order to achieve permit requirements, the City has evaluated their previous SWMP and success to develop a new SWMP detailing a series of selected BMPs for each of the five required MCMs for a Level 3 Small MS4. The GCMUDs will participate only in goals associated with Level 2 Small MS4s. The GCMUDs indicate this in the associated goals. City staff selected these BMPs and associated measurable goals after reviewing EPA and TCEQ guidance documentation, attending a series of training courses and workshops, consulting with other MS4s, and assessing the developmental needs and resources of the City. As outlined throughout the SWMP, each of the BMPs utilizes a series of measurable goals and evaluation techniques to ensure appropriate program implementation, and an implementation schedule details program development throughout the five-year permit period. The City and GCMUDs have chosen the MS4 general permit year as its annual reporting year.

### 1.3.3 Capacity & Authority of MS4s to Implement and Enforce MCMs and BMPs

As detailed in Part III.A.3 under the general permit’s Legal Authority, 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 MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA by the end of the second year. The MCMs that have specific enforcement requirements are:

- **Illicit Discharge Detection and Elimination (IDDE)** – The illicit discharge MCM states that the MS4 must establish a program to detect and eliminate illicit discharges to the small MS4 and to the extent allowable under state and local law, the permittee must
utilize an ordinance or other regulatory mechanism to prohibit and eliminate illicit discharges.

- **Construction Site Stormwater Runoff Control** – This MCM requires the MS4 to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or less than one acre if it is part of a larger common plan of development. The program must include the development and implementation of an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance.

- **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 of land, 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, including the development of an ordinance to address post-construction runoff.

While the permit states that a small MS4 must develop an enforcement program to the extent allowable under state and local law, the MS4 must develop a program that will reduce the discharge of pollutants from the MS4 to the MEP, protect water quality, and satisfy the appropriate water quality requirements of the CWA. The City plans to review their existing ordinances and modify as necessary. Since the GCMUDs do not have the power to develop ordinances and therefore will abide by League City’s ordinances, where all enforcement and violations of League City’s stormwater ordinances will be referred to the City.
2.0 IMPAIRED WATER BODIES

2.1 IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

The new TPDES TXR040000 general permit states that permit holders shall control the discharges of pollutant(s) of concern to impaired waters and waters with approved TMDLs shall assess the progress in controlling those pollutants. For discharges to water quality impaired water bodies with an approved TMDL, the permittee’s SWMP and annual reports must include the following information:

(a) Targeted controls;
(b) Measureable goals;
(c) Identification of benchmarks;
(d) Annual reporting of selected BMPs; and
(e) Monitoring/assessment of progress.

For MS4s that discharge directly to water quality impaired water bodies without an approved TMDL, the permittee shall perform the following activities:

(a) Discharging a pollutant of concern

(1) Determine within the first year of the following permit effective date, if the small MS4 is the source of the pollutant;

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

(3) No later than three years following the permit effective date, the permittee shall submit a notice of change to amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.

(b) Impairment of bacteria. If bacteria are the impairment/pollutant of concern, the permittee shall identify significant sources and shall develop and implement focused BMPs for those sources. The permittee may implement the BMPs listed in Part II.D.4.a.5 of the permit.

(c) Annual reports must include compliance with this section along with any sampling conducted.

The City of League City and the GCMUDs discharge to water bodies with and without approved TMDLs as presented below.
2.2 IMPAIRED WATER BODIES WITH TMDL/I-PLAN

The City of League City is divided by two watersheds, Clear Creek and Dickinson Bayou. Both Clear Creek Tidal and Dickinson Bayou Tidal have high bacteria levels that have approved TMDLs and I-Plans to be used as a guide to assist in reducing pollutants.

2.2.1 Clear Creek

Clear Creek does not meet Texas Surface Water Quality Standards and is therefore considered an impaired water body as per the latest TCEQ and EPA approved CWA § 303(d) list. Clear Creek Tidal (Segment 1101), Clear Creek Above Tidal (Segment 1102), and their tributaries have TMDLs applied. The causes of impairments for Clear Creek Tidal are bacteria, dioxin in edible tissue, and PCBs in edible tissue.

The B.I.G. is a regional body created to focus on improving water quality by reducing bacteria levels in the waterways in the Houston-Galveston Region. The TCEQ adopted nine bacteria TMDLs for Clear Creek on September 10, 2008, which were approved by the EPA on March 6, 2009. An additional four TMDLs were added by addendum in October 2012, which were approved by the EPA in March 2013. The B.I.G. stakeholders developed a regional I-Plan to address the identified 72 TMDLs for 60 waterway segments in 10 counties. The I-Plan was approved by the TCEQ on January 30, 2013.

2.1.1 Dickinson Bayou

Dickinson Bayou also does not meet Texas Surface Water Quality Standards and is considered an impaired water body as per the latest TCEQ and EPA approved CWA § 303(d) list. Dickinson Bayou Tidal (Segment 1103), Dickinson Bayou Above Tidal (Segment 1104) and their tributaries also have active TMDLs. The causes of impairments for Dickinson Bayou Tidal are bacteria, depressed dissolved oxygen, and dioxin and PCBs in edible tissue.

The Dickinson Bayou Watershed Partnership (DBWP), in conjunction with the Houston-Galveston Area Council, the Galveston Bay Estuary Program, and the Texas Cooperative Extension, is a gathering of federal, state, and private organizations who meet to improve watershed health, integrate watershed management, and make better use of watershed project funding. The TCEQ adopted eight bacteria TMDLs for Dickinson Bayou February 8, 2012, which was approved by the EPA on June 6, 2012. The Dickinson Bayou Watershed Partnership stakeholders developed an Implementation Plan to address the TMDLs. The I-Plan was approved by the TCEQ on January 15, 2014.

2.1.2 Targeted Controls

The City of League City was a key stakeholder in the development of the B.I.G. I-plan and the DBWP I-Plan and based many of their MCM goals and BMPs with the I-plans in mind. Targeted controls and selected implementation activities were evaluated and selected from the I-plans. The list of targeted controls may be found in Tables 2-1 and 2-2.
2.1.3 Measureable Goals

For each of the targeted goals, a measurable goal was included. A list of the measurable goals and respective targeted controls may be found in Tables 2-1 and 2-2.

2.1.4 Identification of Benchmarks

The City of League City understands that benchmarks are designed to assist in determining if the selected BMPs are effectively addressing the pollutant of concern in stormwater discharge(s) from the MS4 to the MEP. In addition, benchmarks for pollutants of concern are to be evaluated on an annual basis and modified as necessary. Benchmarks will not be numeric effluent limitations or permit conditions, but are intended to be guidelines for evaluating progress towards reducing pollutant discharges consistent with the benchmarks. Furthermore, an exceedance of a benchmark will not be a permit violation.

Since the City was a stakeholder in the TMDL and I-plan processes, the City would like to use the Waste Load Allocations (WLA) identified in the TMDLs as benchmarks.

2.1.5 Monitoring/Assessment of Progress

The City of League City shall monitor and assess progress toward the benchmarks on behalf of all members of the SWMP. Program implementation measures are listed in Table 2-1 for each measureable goal. The City will also include in the annual report an assessment of water quality by evaluating their own data through the illicit discharge detection and elimination program and potentially data sources such as the Texas Stream Team data and the Clean Rivers Program.

2.2 OTHER IMPAIRED WATER BODIES

The City also drains to Jarbo Bayou, a tributary of Clear Lake, which does not yet have a TCEQ adopted TMDL but is in the process of developing TMDLs. The cause of impairment for Jarbo Bayou is bacteria, dioxin in edible tissue, and PCBs in edible tissue. Staff members from the Houston-Galveston Area Council, stakeholder communities, interest groups, and local organizations have started a project to develop TMDLs and an implementation plan to reduce bacteria and protect recreational safety.
### TABLE 2-1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Causes/Sources</th>
<th>Measurable Goals</th>
<th>Evaluation</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clear Creek - Bacteria Implementation Group I-Plan</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>WWTF 1.1: Impose more rigorous bacteria monitoring requirements</td>
<td>Wastewater treatment facility effluent</td>
<td>As permits come up for renewal or as new permits are written, the City will incorporate new TCEQ monitoring requirements regarding wastewater treatment facilities into its permits.</td>
<td>The City will abide by new permit requirements as they are issued.</td>
<td>Annually</td>
</tr>
<tr>
<td>WWTF 1.2: Impose stricter bacteria limits for WWTF effluent</td>
<td>Wastewater treatment facility effluent</td>
<td>As permits come up for renewal or as new permits are written, the City will incorporate new TCEQ bacteria limits into its permits.</td>
<td>The City will meet the lower limits as they are issued to the City.</td>
<td>Annually</td>
</tr>
<tr>
<td>SSS 2.2: Address fats, oils, and grease</td>
<td>Sanitary sewer system failures</td>
<td>Evaluate existing regulations and policies regarding fats, oils, and grease; make changes, if needed.</td>
<td>Revise regulations and policies if necessary.</td>
<td>By End of Year 2</td>
</tr>
<tr>
<td>SSS 2.3: Encourage appropriate mechanisms to maintain function at lift stations</td>
<td>Sanitary sewer system failures</td>
<td>Evaluate existing lift station operations and maintenance procedures; make changes, if needed.</td>
<td>Revise regulations and policies if necessary. Record and report number of lift station inspections performed annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>SSS 2.4: Improve reporting requirements for SSOIs</td>
<td>Sanitary sewer system failures</td>
<td>Continue maintaining and updating the database for tracking sanitary sewer overflows as part of agreement with TCEQ’s SSOI plan.</td>
<td>Record and report the number of sanitary sewer overflows and the City’s response/corrective action annually.</td>
<td>Annually - starting in Year 2</td>
</tr>
<tr>
<td>SSS 2.6: Restructure penalties for SSS violations</td>
<td>Sanitary sewer system failures</td>
<td>Review existing penalties for sanitary sewer system violations and revise if necessary.</td>
<td>Implement new penalties if any.</td>
<td>By End of Year 2</td>
</tr>
<tr>
<td>Stormwater and Land Development 4.2: Model Best Practices</td>
<td>Stormwater runoff</td>
<td>Attend networking meetings hosted by H-GAC to discuss BMP progress/outlook and share strategies that have proven successful.</td>
<td>Record and report the number of meetings attended, the topics discussed, and any ideas deemed potentially useful and practical for the City.</td>
<td>Annually</td>
</tr>
<tr>
<td>Construction 5.1: Increase compliance with and enforcement of stormwater management permits</td>
<td>Construction site runoff</td>
<td>Evaluate existing construction site inspection program and make changes, if needed, to site runoff regulations and policies and inspection forms.</td>
<td>Record and report the number of construction site inspections performed annually. Revise Stormwater Construction Ordinance if necessary.</td>
<td>Annually</td>
</tr>
<tr>
<td>Illicit Discharges and Dumping 6.1: Detect and eliminate illicit discharges</td>
<td>Illicit discharges and dumping</td>
<td>Evaluate existing illicit discharge detection and elimination regulations and policies; make changes, if needed.</td>
<td>Record and report the number of illicit discharges and City’s response/corrective action taken annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>Illicit Discharges and Dumping 6.2: Improve regulation and enforcement of illicit discharges</td>
<td>Illicit discharges and dumping</td>
<td>Evaluate existing illicit discharge enforcement regulations and policies; make changes, if needed.</td>
<td>Record and report number of enforcement actions taken annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>Activity</td>
<td>Causes/Sources</td>
<td>Measurable Goals</td>
<td>Evaluation</td>
<td>Schedule</td>
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<tr>
<td>Clear Creek - Bacteria Implementation Group I-Plan</td>
<td>Residential Sources 8.1: Expand homeowner education efforts throughout the B.I.G. project area</td>
<td>Nonpoint sources from residential property</td>
<td>Evaluate and develop community educational outreach materials to promote public participation in stormwater quality management and nonpoint source pollution reduction from residential property.</td>
<td>Record and report the distribution method chosen, the number of informational material distributed, and the number of residents reached with the informational material.</td>
</tr>
<tr>
<td>Activity</td>
<td>Causes/Sources</td>
<td>Measurable Goals</td>
<td>Evaluation</td>
<td>Schedule</td>
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<tr>
<td>WWTF Measure 2.4: Address fats, roots, oils, and grease</td>
<td>Wastewater treatment facility effluent</td>
<td>See &quot;Clear Creek - Bacteria Implementation Group I-Plan SSS 2.2&quot; Above</td>
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<tr>
<td>WWTF Measure 2.5: Encourage appropriate mechanism to maintain function at lift stations</td>
<td>Wastewater treatment facility effluent</td>
<td>See &quot;Clear Creek - Bacteria Implementation Group I-Plan SSS 2.3&quot; Above</td>
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<tr>
<td>WWTF Control 1.0: Implement stricter bacteria limits and enforcement measure for WWTF effluent</td>
<td>Wastewater treatment facility effluent</td>
<td>See &quot;Clear Creek - Bacteria Implementation Group I-Plan WWTF 1.1&quot; Above</td>
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<tr>
<td>WWTF Control 3.0: Restructure penalties and violations for SSSs and WWTFs</td>
<td>Wastewater treatment facility effluent</td>
<td>See &quot;Clear Creek - Bacteria Implementation Group I-Plan SSS 2.6&quot; Above</td>
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<tr>
<td>WWTF Control 4.0: Improve reporting capabilities for SSOs</td>
<td>Wastewater treatment facility effluent</td>
<td>See &quot;Clear Creek - Bacteria Implementation Group I-Plan SSS 2.4&quot; Above</td>
<td></td>
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<tr>
<td>Participation 3.2: Expand pet owner education efforts</td>
<td>Nonpoint sources from pet waste</td>
<td>Maintain and stock existing pet waste bag dispensers at parks and public areas.</td>
<td>Record and report the number of bags resupplied annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>Participation 3.3: Install pet waste stations in parks and public areas</td>
<td>Nonpoint sources from pet waste</td>
<td>Continue to install pet waste stations in parks and trails.</td>
<td>Record and report the number of stations (and locations) installed each year.</td>
<td>Annually</td>
</tr>
<tr>
<td>Participation 3.4: Improve HOA bylaws and ordinances for pet waste control</td>
<td>Nonpoint sources from pet waste</td>
<td>Evaluate existing City ordinances regarding animals not part of agricultural operation and modify as necessary.</td>
<td>Implement modified City ordinances, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td>Participation 3.5: Increase awareness, develop, and enforce pet waste control ordinances</td>
<td>Nonpoint sources from pet waste</td>
<td>See &quot;Dickinson Bayou - Dickinson Bayou Watershed Partnership I-Plan Participation 3.2&quot; Above</td>
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<tr>
<td>Sanitary Sewer Systems</td>
<td>Make Improvements to Reduce Overflows</td>
<td>The City will continue to address and eliminate sanitary overflows as part of the TCEQ SSOI plan.</td>
<td>Record number of reported overflows and measures to eliminate.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Address Lift Station Inadequacies</td>
<td>The City will continue to perform annual inspections on lift stations and document inadequacies as part of the TCEQ SSOI plan. Inadequacies will be prioritized and scheduled for repairs.</td>
<td>Record number of lift station inspections and compared to schedule of repair.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Improve Reporting of Overflows</td>
<td>The City will evaluate their current method of reporting overflows and look for methods to improve as part of the TCEQ SSOI plan.</td>
<td>Document number of overflow reports and final resolutions. Compare the number of reports to previous years.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Strengthen Requirements to Reduce Blockage from Fats, Oils, and Grease (FOG)</td>
<td>The City will bolster FOG public education campaign and IDDE program to promote FOG requirements.</td>
<td>Document and promote the program. Record the number of businesses seeking certification under the program.</td>
<td>Start in Year 1, continue through the life of the permit.</td>
</tr>
<tr>
<td>On-site Sewage Facilities (OSSFs)</td>
<td>Identify and Address Failing Systems</td>
<td>The City has a memorandum of understanding to refer all identified failing OSSFs to the Galveston County Health District. The City also requires systems to join the City's sanitary lines if the City has a sanitary line within 300' of an OSSF.</td>
<td>The City will refer identified failing OSSFs to the Galveston County Health District. Bring on new OSSF's when the City installs new lines.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Address Inadequate Maintenance of OSSFs</td>
<td>The City has a memorandum of understanding to refer all inadequate OSSF maintenance issues to the Galveston County Health District.</td>
<td>The City will refer inadequate OSSF maintenance issues to the Galveston County Health District.</td>
<td>Annually</td>
</tr>
<tr>
<td>Illicit Discharges and Dumping</td>
<td>Make Greater Effort to Reduce Waste Sources of Bacteria</td>
<td>The City's Stormwater Ordinance will provide enforcement against illegal dumping. Through the City's Illicit Discharge Detection and Elimination program, areas with historic illegal dumping activities will have focused dry weather screening efforts.</td>
<td>Record number of reported illicit discharges and dumping. Report dry weather screening activities and results in areas with previous illegal dumping activities related to bacteria.</td>
<td>Annually</td>
</tr>
<tr>
<td>Animal Sources</td>
<td>Expand Existing Management Programs to Identify and Target Animal Sources</td>
<td>The City will expand its current illicit discharge program to identify and target possible animal sources.</td>
<td>Document management program including identified and targeted animal sources.</td>
<td>Annually</td>
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<tr>
<td>Residential Education</td>
<td>Bacteria Discharging from a Residential Site During Runoff Events or Directly</td>
<td>The City will develop educational materials for distribution under their Public Education, Outreach and Involvement program that will focus on bacteria impacts to receiving streams.</td>
<td>Record number of educational material presented to residents on bacteria discharges and ways of reducing impacts to water quality.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Fats, Oils, and Grease (FOG) Clogging Sanitary Sewer Lines &amp; Resulting Overflows</td>
<td>The Public Works department will develop educational materials focusing on FOG issues and the reporting of overflows for distribution.</td>
<td>Record number of educational material distributed, along with the mechanisms to distribute.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Decorative Ponds</td>
<td>The City will seek opportunities to collaborate with other groups to provide information about decorative ponds and their potential impacts on stormwater quality.</td>
<td>Record number of discussions held with various HOA's and other entities.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Pet Waste</td>
<td>The City will use their website and new social media platform to reach out to the public regarding pet waste.</td>
<td>Record number of website messages and social media posts regarding pet wastes.</td>
<td>Annually</td>
</tr>
</tbody>
</table>
3.0  MCM1: PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT

3.1  OVERVIEW

The key to a successful SWMP is having a well-educated community with ownership in the City’s efforts for good stewardship of stormwater quality. Public education and outreach is a key component to the success of a SWMP. Through public education, residents gain an understanding of how their actions affect stormwater quality, and they become more informed about water quality issues in their community. When citizens understand that poor water quality may result from common everyday activities, a major source of stormwater pollutants may be easily eliminated. Perhaps more importantly, an educated public will serve as a broad base of support for a SWMP. The objective of a public education program is to promote a clear identification and understanding of the issues associated with stormwater pollution and to promote community ownership of the problems and solutions.

Public involvement and participation is another important component in the development and implementation of the SWMP. Involving the public goes hand-in-hand with a local government’s public education efforts and can help accomplish some of the same goals. Public involvement and participation can also create more opportunities to gain expertise from interested individuals and other organizations or governmental entities. These added resources can add to the success of the program.

The City has been and continues to be dedicated to educating the League City community on the impacts stormwater can have on water quality, the hazards associated with illegal discharges, and the steps that can be taken to reduce pollutants in stormwater runoff, while involving the public through various opportunities in stormwater quality decision making and hands on projects affecting stormwater quality. Recent actions by the City include the City starting to use social media platforms in attempts to reach out to the public regarding water quality issues. The efforts of the City benefit the areas of the GCMUDs. This is described in further detail below as are additional goals for this next permitting period.

3.2  TPDES PHASE II PERMIT REQUIREMENTS

Public Education and Outreach

(a) All permit holders 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 illegal discharges and improper disposal of waste and about the impacts that stormwater discharges may have on local waterways, as well as the steps the public may take to reduce pollutants in stormwater. As an existing permit holder, the City shall assess the previous program elements, modify, and develop and implement new elements as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. The program must, at a minimum:

(1) Define goals and objectives of the program based on high priority community-wide issues;
(2) Identify targeted audiences;
(3) Develop and use appropriate educational materials, such as printed materials, billboards, mass transit advertisements, signage at select locations, radio or television advertisements and websites;
(4) Determine cost effective and practical methods and procedures for distribution of materials.

(b) Throughout the permit term, all permittees shall make the educational materials available to convey the program’s message to the target audience(s) at least annually.

(c) Review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2 of the permit. All changes must be reflected in the annual report, maintained on site or in the SWMP, and made available for inspection by the TCEQ.

(d) MS4 operators may collaborate with other MS4 operators to maximize the program and cost effectiveness of the required outreach.

Public Involvement/Participation

(a) The MS4 operator must involve the public, and, at a minimum, comply with any state and local public notice requirements in the planning and implementation activities related to developing and implementing the SWMP. Correctional facilities are not required to implement this MCM. As an existing permit holder, the City shall assess the previous program elements, modify, and develop and implement new elements as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. The GCMUDs will follow the same program. The program must, at a minimum:

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

3.3 DISCUSSION OF STORMWATER PROGRAMS

The City of League City currently institutes a variety of public outreach and education programs to educate and inform the community of the effects their actions have on the environment.

3.3.1 BMP No. 1 – Stormwater Educational Outreach

The City will evaluate and update informational brochures to inform the public about water quality. The informational brochures available through the Clean Water Clear Choice program, (e.g. Joint Task Force consisting of Harris County, City of Houston, Harris County Flood Control and TxDOT-Houston) were used as a foundation for this program. Topics discussed in
the pamphlets include stormwater pollution reduction, clean boater guidelines, paint and pet waste disposal, fertilizer and mowing, and bacteria specific information. The pamphlets are available for distribution at the City Hall. The City will also post copies of all stormwater educational material distributed to the City’s website: http://tx-leaguecity.civicplus.com. The City covers the GCMUD areas and participation with the City’s participation in the Clean Water Clear Choice program.

**Measurable Goals:**

- Evaluate and develop informational brochure describing methods of stormwater pollution reduction and bacteria-related items for private residences.
- Continue to distribute informational brochure on stormwater pollution reduction.
- Continue to distribute clean boater guidelines.
- Continue to distribute paint and pet waste disposal.
- Continue to distribute fertilizer and mowing information.
- Develop and distribute a pollutant specific (e.g. bacteria and oxygen-demanding substance) promotional handout.

**Evaluation:**

- Record and report quantity of material developed.
- Record and report quantity of material distributed.

3.3.2 **BMP No. 2 – Education and Outreach for Commercial Activities**

The City will evaluate and update the educational brochures that are being distributed specifically targeting commercial activities. The brochures focus on stormwater pollution reduction and bacteria related items at commercial locations. The City covers the GCMUD areas with their participation with the educational brochures.

**Measurable Goals:**

- Evaluate and update, if necessary, brochures describing methods of stormwater pollution reduction and bacteria-related items for commercial locations.
- Continue to distribute informational brochures regarding commercial activities.

**Evaluation:**

- Record and report quantity of material developed or updated.
- Record and report quantity of material distributed.

3.3.3 **BMP No. 3 – Municipal Cable Television Channel (LCTV16)**

The City will continue to disseminate information on stormwater quality issues through its municipal cable television station (LCTV16) where residents obtain information regarding city policies, programs, procedures, and upcoming events. The municipal station will be utilized to
highlight public service announcements (PSAs) obtained through the TCEQ, the EPA, and additional outside educational sources and information regarding the development and implementation of the SWMP. The municipal channel reaches the viewing areas of the GCMUDs.

**Measurable Goals:**

- Continue to disseminate information on a quarterly basis via LCTV16.

**Evaluation:**

- Track and report the number of PSAs and other materials presented.

3.3.4 **BMP No. 4 – Website Hosting**

The City will continue to utilize the municipal website to inform the public of the issues associated with stormwater pollution and the issues of concern detailed in the SWMP. A section of the City’s website will continue to be dedicated to stormwater education and outreach. The web page will include general water quality information, residential and commercial resources, and information on public involvement and regulatory updates. The City will continue to comply with all state and local public notice requirements regarding the SWMP. This does not apply to the GCMUDs, as they do not have websites.

**Measurable Goals:**

- Continue to provide website access to updated SWMP.
- Continue to provide website access to stormwater Fact sheets.
- Provide link to updated bacteria impacts on stormwater quality.
- Continue to provide links to the City’s "Lean.Clean.Green" Program.
- Continue to provide website access to current educational materials, updated public commenting periods, contact information, water quality event dates and schedules, recycling information, and annual reports.

**Evaluation:**

- Provide link to SWMP.
- Provide link to Fact sheets.
- Provide link to Bacteria information.
- Provide link to “Lean.Clean.Green” Program.
- Track and report on website traffic and number of materials presented.

3.3.5 **BMP No. 5 – Social Media Outreach**

The City will also develop a social media outreach program tailored specifically for residents, businesses, and other community participants. The social media outreach program will help to educate the public about illegal discharges and improper disposal of waste and their associated
impacts on local waterways with the use of newer social media technologies. The City will choose the platform more appropriate for its educational goals and provide posts regarding water quality and other relevant environmental issues for residents. The City will then evaluate if social media is a better option to its existing educational brochure program in reaching residents with appropriate stormwater quality information. The City’s social media program will include areas within the GCMUDs.

**Measurable Goals:**

- Evaluate if social media is a better option and discontinue brochures, if necessary.
- Identify the most appropriate social media platform/s for the City to use.
- Develop and post information on social media (e.g. Facebook, YouTube, Twitter, Pinterest).

**Evaluation:**

- Document evaluation and decision to reduce or phase out utility bill inserts and informational brochures in favor of social media.
- Document the identification of most appropriate social media platform/s.
- Track and record number of public updates provided through social media.

**3.3.6 BMP No. 6 – Storm Drain Marking**

A piped storm sewer system serves much of the UA of League City. As a key stormwater conveyance feature, the storm sewer system provides an access point for dumping of pollutants into the City’s bayous and streams. The City will continue its existing storm drain marking program, which helps inform residents about prohibited dumping into its waterways. The inlets will be marked with a message stating that these inlets drain to Galveston Bay and that dumping is prohibited. Areas to be marked will be carefully selected to include those areas with high pedestrian traffic or where dumping has been identified as a source of pollution. The City will collaborate with volunteer groups, such as home owner associations (HOAs), the Boy/Girl Scouts and other similar organizations, to help mark inlets. GCMUDs 43, 44, and 46 will continue to assist in the implementation of this BMP.

**Measurable Goals:**

- Enlist HOAs, Boy/Girl Scouts, and/or other volunteer groups for help with placement.
- Continue to perform storm drain marking on new infrastructure.

**Evaluation:**

- Record and report number of volunteering groups and number of participants at events.
- Compile list of new infrastructure in need of marking.
3.3.7 **BMP No. 7 – Adopt-A-Stream Program**

Through the Adopt-A-Stream Program, the City will continue to collaborate with various civic organizations, schools, and businesses to solicit volunteers to adopt their local drainage ways, including drainage ditches and receiving waters. The purpose of the program is to remove trash and debris from the drainage ways and to provide volunteer monitors for possible problems in runoff water quality and quantity. City personnel perform maintenance activities identified by the volunteers, such as desilting drainage ditches. The City’s Adopt-A-Stream Program will include areas covered by the GCMUDs.

**Measurable Goals:**

- Continue to collaborate with other cleanup events (River, Lakes, Bays 'n Bayous Trash Bash).
- Collect reports from cleanup events.

**Evaluation:**

- Document the participation in events, including the number of attendees and goals of the events.
- Track reported volume of trash collected.

3.3.8 **BMP No. 8 – Community Contact**

The City has established a primary contact person for all stormwater quality related questions. This person responds to public complaints and inquiries. The contact information is published in City Matters, a local magazine, and on the City website and will be updated as needed. The GCMUDs will refer questions to the League City Community Contact.

**Measurable Goals:**

- Continue to provide updated contact information on City Matters quarterly newsletter and City's website.

**Evaluation:**

- Update contact information used for newsletter and website.

3.3.9 **BMP No. 9 – Grease Trap Program**

The City will evaluate and update its existing grease trap program designed to educate local restaurants about keeping grease and kitchen waste out of the MS4. Gas stations in League City and the GCMUD jurisdictions are required to have sand and oil separators, which are inspected in the same manner as the grease traps.
Measurable Goals:

- Evaluate and update Grease Trap Program if necessary.
- Continue to educate local restaurants.
- Continue to require gas stations to have sand and oil separators.

Evaluation:

- Update grease trap program if necessary.
- Record and report number of local restaurants reached.
- Record and report number of gas stations with sand and oil separators.

3.3.10 BMP No. 10 – Lawn and Garden Activities

In an effort to address possible pollutant concerns from lawn and garden activities, the City will provide the general public with information on fertilizing and mowing. The City will reach out to areas within the GCMUDs.

Measurable Goals:

- Provide website link to fertilizing and mowing information; update as needed.
- Distribute fertilizing and mowing pamphlets with their impacts on stormwater quality.

Evaluation:

- Compile list of links to fertilizing and mowing information.
- Record and report number of pamphlets distributed.

3.3.11 BMP No. 11 – Recycling Program

The City will continue to promote its current recycling programs and provide opportunities for the general public to participate in the various recycling events. The City’s Recycling Program will include areas covered by the GCMUDs.

Measurable Goals:

- Continue to promote recycling events (e.g. hazardous waste, e-waste, tire, Christmas tree, etc.) through the City’s website.

Evaluation:

- Record and report number of events posted and the amount of trash collected at each event annually.
3.3.12 **BMP No. 12 – Pet Waste Control**

The City will continue to resupply pet waste bag dispensers at local parks to help reduce the amount of waste and bacteria entering the storm sewer system and draining to local waterways. The City will also evaluate the need for additional dispensers annually. The City will also continue to evaluate and update educational material from entities such as the TCEQ, EPA, and the Texas A&M AgriLife Extension Service regarding pet waste control.

**Measurable Goals:**

- Continue to resupply pet waste bag dispensers at local parks.
- Continue to evaluate need for additional dispensers annually.

**Evaluation:**

- Record and report the number of dispensers resupplied annually.
- Record and report the number of new dispensers installed, if any.

3.3.13 **BMP No. 13 – Watershed BMP Networking**

HGAC and other entities host meetings relating to stormwater and BMPs. The City will continue to attend the meetings to review highlighted BMPs and stormwater controls by other MS4 permittees to help with the practical collaboration and information sharing at a watershed level. In addition, the meetings serve as a forum for collaborative development and maintenance of regionally accepted codes, design criteria, and BMP monitoring and evaluation guidelines. This BMP is not applicable to the GCMUDs.

**Measurable Goals:**

- Attend networking meetings hosted by H-GAC to discuss BMP progress/outlook and share strategies that have proven successful. City will attend at least two Watershed BMP networking events annually.

**Evaluation:**

- Record and report the number of meetings attended, the topics discussed, and any ideas deemed potentially useful and practical for the City.
<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>Measurable Goals</th>
<th>Permit Years</th>
<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stormwater Education and Outreach</strong></td>
<td>Evaluate and update informational brochure describing methods of stormwater pollution reduction and bacteria-related items for private residences.</td>
<td>Public Works</td>
<td>Record and report quantity of material developed.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to distribute informational brochure on stormwater pollution reduction.</td>
<td>Public Works, Parks</td>
<td>Record and report quantity of distributed material.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to distribute clean boater guidelines.</td>
<td>Public Works</td>
<td>Record and report quantity of distributed material.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to distribute paint and pet waste disposal.</td>
<td>Public Works, Parks</td>
<td>Record and report quantity of distributed material.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to distribute fertilizer and mowing information.</td>
<td>Public Works, Parks</td>
<td>Record and report quantity of distributed material.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to develop and distribute a pollutant specific (e.g. bacteria and oxygen-demanding substance) promotional handout.</td>
<td>Public Works</td>
<td>Record and report quantity of distributed material.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td><strong>Education and Outreach for Commercial Activities</strong></td>
<td>Evaluate and update brochures describing methods of stormwater pollution reduction and bacteria-related items for commercial locations.</td>
<td>Public Works</td>
<td>Record and report quantity of material developed/updated.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to distribute informational brochures regarding commercial activities.</td>
<td>Public Works</td>
<td>Record and report quantity of material distributed.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td><strong>Municipal Cable Television Channel (LCTV16)</strong></td>
<td>Continue to disseminate information on a quarterly basis via LCTV16 (local municipal channel).</td>
<td>Public Works</td>
<td>Track and report the number of PSAs and other materials presented.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td><strong>Website Hosting</strong></td>
<td>Continue to provide website access to updated SWMP.</td>
<td>Public Works</td>
<td>Provide link to SWMP on City's website</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to provide website access to stormwater Fact Sheets.</td>
<td>Public Works</td>
<td>Provide link to Factsheets on City's website.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide links regarding bacteria impacts on stormwater quality.</td>
<td>Public Works</td>
<td>Provide links to water quality related impacts from bacteria.</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue to provide links to the City's &quot;Lean.Clean.Green&quot; Program.</td>
<td>Public Works</td>
<td>Provide link to &quot;Lean.Clean.Green&quot; Program.</td>
<td>Annually</td>
<td></td>
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<td></td>
<td>Continue to provide web access to current educational materials, updated public commenting periods, contact information, water quality event dates and schedules, recycling information, and annual reports.</td>
<td>Public Works</td>
<td>Track and report on website traffic and number of materials presented.</td>
<td>Annually</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 3-1: PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT

<table>
<thead>
<tr>
<th>Best Management Practice</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1  2  3  4  5</td>
<td>Public Works</td>
<td>Document evaluation and decision to reduce or phase out utility bill inserts and informational brochures in favor of social media.</td>
<td>Once during permit term</td>
</tr>
<tr>
<td>Social Media Outreach</td>
<td>Evaluate if social media is a better option and discontinue brochures, if necessary.</td>
<td></td>
<td></td>
<td>Hold social media outreach goal.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify the most appropriate social media platform/s for the City to use.</td>
<td></td>
<td></td>
<td>Document the identification of most appropriate social media platform/s.</td>
<td>Once during permit term</td>
</tr>
<tr>
<td></td>
<td>Develop and post information on social media (e.g. Facebook, YouTube, Twitter, Pinterest, etc.).</td>
<td></td>
<td></td>
<td>Track and record number of public updates provided through social media.</td>
<td>Annually</td>
</tr>
<tr>
<td>Storm Drain Marking</td>
<td>Enlist HOAs, Boy/Girl Scouts, and/or other volunteer groups for help with placement.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of volunteering groups and number of participants at events.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Continue to perform storm drain marking on new infrastructure.</td>
<td></td>
<td>Public Works/GCMUDs 43, 44 and 46</td>
<td>Compile list of new infrastructure in need of marking.</td>
<td>Annually</td>
</tr>
<tr>
<td>Adopt-A-Stream Program</td>
<td>Continue to collaborate with other cleanup events (River, Lakes, Bays ‘n Bayous Trash Bash, Adopt-A-Stream Program).</td>
<td></td>
<td>Public Works</td>
<td>Document the participation in events including the number of attendees and goals of the events.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Collect reports from cleanup events.</td>
<td></td>
<td>Public Works</td>
<td>Track reported volume of trash collected.</td>
<td>Annually</td>
</tr>
<tr>
<td>Community Contact</td>
<td>Continue to provide updated contact information on City Matters quarterly newsletter and City's website.</td>
<td></td>
<td>Public Works</td>
<td>Update contact information used for newsletter and website.</td>
<td>Annually</td>
</tr>
<tr>
<td>Grease Trap Program</td>
<td>Evaluate and update Grease Trap Program, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Update the grease trap program, if necessary.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Continue to educate local restaurants.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of local restaurants reached.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Continue to require gas stations to have sand and oil separators.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of gas stations with sand and oil separators.</td>
<td>Annually</td>
</tr>
<tr>
<td>Lawn and Garden Activities</td>
<td>Provide website link to fertilizing and mowing information; update as needed.</td>
<td></td>
<td>Public Works</td>
<td>Compile list of links to fertilizing and mowing information.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Distribute fertilizing and mowing pamphlets with their impacts on stormwater quality.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of pamphlets distributed.</td>
<td>Annually</td>
</tr>
<tr>
<td>Best Management Practice</td>
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</tr>
<tr>
<td>Recycling Program</td>
<td>Continue to promote recycling events (hazardous waste, e-waste, tire, Christmas tree, etc.) through the City’s website.</td>
<td>1</td>
<td>Public Works</td>
<td>Record and report number of events posted and the amount of trash collected at each event annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>Pet Waste Control</td>
<td>Continue to resupply pet waste bag dispensers at local parks.</td>
<td>1</td>
<td>Public Works, Parks</td>
<td>Record and report number of dispensers resupplied annually.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Continue to evaluate need for additional dispensers annually.</td>
<td>1</td>
<td>Public Works, Parks</td>
<td>Record and report number of new dispensers installed, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td>Watershed BMP Networking</td>
<td>Attend networking meetings hosted by H-GAC to discuss BMP progress/outlook and share strategies that have proven successful. City will attend at least two Watershed BMP networking events annually.</td>
<td>1</td>
<td>Public Works</td>
<td>Record and report the number of meetings attended, the topics discussed, and any ideas deemed potentially useful and practical for the City.</td>
<td>Annually</td>
</tr>
</tbody>
</table>
4.0 MCM2: ILLICIT DISCHARGE DETECTION AND ELIMINATION

4.1 OVERVIEW

The illicit discharge detection and elimination MCM is intended to detect and eliminate discharges to the MS4 system that are not entirely composed of stormwater. As identified in the Phase II TPDES permit, MS4 permittees are required to develop a strategy to detect and eliminate illicit discharges to the storm drain system. The EPA has defined an illicit discharge as “any discharge into a separate storm sewer system that is not composed entirely of stormwater.”

4.2 TPDES PHASE II PERMIT REQUIREMENTS

Illicit Discharge Detection and Elimination

(a) Permit Requirements (Level 2 and 3 Small MS4s)

(1) MS4 Mapping

An updated map of the storm sewer system must be developed and must include the following:

i. The location of all outfalls operated by the permittee and the discharge in Waters of the U.S.;
ii. The names and locations of all surface waters receiving discharges from MS4’s outfalls; and
iii. Priority areas identified under Part III.B.2(e)(1) any additional information needed by the permittee to implement its SWMP.

(2) Education and Training

All permittees shall implement a method for informing or training all the permittee’s field staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small MS4 as part of their normal job responsibilities.

(3) Public Reporting of Illicit Discharges and Spills

To the extent feasible, all permittees shall publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the MS4.

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

(5) Source Investigation and Elimination
i. Minimum investigation requirements – upon becoming aware of an illicit discharge, all permittees shall conduct an investigation to identify and locate the source of such illicit discharges as soon as practicable.

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

iii. Corrective action to eliminate illicit discharges.

(6) Inspections

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

(b) Allowable Non-Stormwater Discharges

Non-stormwater flows listed in Part II.C do not need to be considered by the MS4 operator as an illicit discharge requiring elimination unless the operator of the small MS4 or the executive director identifies the flow as a significant source of pollutants to the small MS4. In lieu of considering non-stormwater sources on a case-by-case basis, the MS4 operator may develop a list of common and incidental non-stormwater discharges that will not be addressed as illicit discharges requiring elimination. If developed, the listed sources must not be reasonably expected to be significant sources of pollutants either because of the nature of the discharge or the conditions that are established by the MS4 operator prior to accepting the discharge to the small MS4. If this list is developed, then all local controls and conditions established for these listed discharges must be described in the SWMP and any changes to the SWMP must be included in the annual report described in Part IV.B.2 of this general permit, and must meet the requirements of Part II.D.3 of the general permit.

(c) Additional Requirements for Level 3 Small MS4 (League City only)

(1) Source Investigations and Elimination: As a level 3 small MS4, the City is required to verify that all illicit discharges reported have been eliminated. The City will document its follow-up investigation and may seek recovery and remediation costs from responsible parties consistent with Part III.A.3.

4.3 ALLOWABLE NON-STORMWATER DISCHARGES

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4’s Illicit Discharge and Detection or other MCMs, unless they are determined by the permittee or the TCEQ to be significant contributors of pollutants to the small MS4:
- water line flushing;
- runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;
- discharges from potable water sources that do not violate Texas Surface Water Quality Standards;
- diverted stream flows;
- rising ground waters and springs;
- uncontaminated ground water infiltration;
- uncontaminated pumped ground water;
- foundation and footing drains;
- air conditioning condensation;
- water from crawl space pumps;
- individual residential vehicle washing;
- flows from wetlands and riparian habitats;
- dechlorinated swimming pool discharges that do not violate Texas Surface Water Quality Standards;
- street wash water;
- discharges or flows from fire-fighting activities (fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
- other allowable non-stormwater discharges listed in 40 CFR 122.26(d)(2)(iv)(B)(1);
- non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR050000 or the TPDES Construction General permit (CGP) TXR150000;
- discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
- other similar occasional incidental non-stormwater discharges, unless the TCEQ develops permits or regulations addressing these discharges.

The City of League City has not identified any of these discharges as significant contributors of pollution to the City’s MS4. Therefore, these discharges will not be specifically addressed in the City’s SWMP. However, in order to manage the release of potential pollutants from these discharges, the City will review current policies and procedures to minimize water quality impacts throughout the community. If in the future the above-referenced discharges prove to be a significant contributor of pollution to the MS4, the SWMP will be revised to include BMPs for those discharges.

4.4 DISCUSSION OF STORMWATER PROGRAMS

The City of League City currently implements a variety of illicit discharge detection programs to identify sources of stormwater pollution throughout the community.
4.4.1 **BMP No. 1 – Storm Sewer Mapping**

The City will evaluate and update the existing GIS work plan, if necessary. In addition, the City will annually update the MS4 map of the storm sewer system, detailing the locations of major and minor outfalls to the Waters of the U.S. An up-to-date storm sewer map is crucial in detecting and removing illicit sewer connections and thereby eliminating illicit discharges. New outfall locations are to be visually inspected and verified by field crews, and ongoing field verification is necessary to keep the system map up-to-date. New drainage features located in areas outside the coverage of the developer-provided drawings are to be identified and located by field surveying or GPS. The City’s mapping efforts will include the GCMUD areas, being performed by the City.

**Measurable Goals:**

- Evaluate and update GIS work plan and compile list of additional information needed.
- Update MS4 Outfall Map.
- Evaluate and update policies and procedures for GIS mapping to ensure program accuracy.

**Evaluation:**

- Compile and report changes to GIS work plan, if any.
- Document updates of system map.
- Compile and report on updates to policies and procedures for GIS mapping, if any.

4.4.2 **BMP No. 2 – Field Staff Training**

The City will continue to implement a training program, including annual classroom and field training to all City staff that have the potential to encounter or respond to illicit discharges and identify spills. Since the City is the entity conducting the illicit discharge inspections and is in charge of the enforcement, the GCMUDs will not participate in the program and refer all inspections and complaints to the City.

**Measurable Goals:**

- Provide annual training to City staff members that have the potential to encounter or respond to illicit discharges.

**Evaluation:**

- Document the number of training classes provided on illicit discharge and elimination and the names and number of staff participating.
4.4.3 **BMP No. 3 – Public Reporting of Illicit Discharges and Spills**

Illicit discharges and spills that affect the City’s MS4 may cause visible environmental impacts to the City’s streams and waterways. These resulting environmental impacts may lead to fish kills, discoloration in water, oil sheen on water, large-scale algal blooms, etc. which are water quality concerns that may prompt the public to notify the City. In order to streamline responses to illicit discharges and spills, the City will develop procedures to accept, prioritize and respond to public reporting. GCMUDs will report any illicit discharges or spills to the City.

**Measurable Goals:**

- Develop, implement, and maintain a method of reporting illicit discharges and spills to the public.
- Develop and implement an internal list of referrals and internal procedures to direct public reports to the appropriate department.

**Evaluation:**

- Record and report the number of illicit discharges and spills reported.
- Document the internal referral of received illicit discharge and spill reports.

4.4.4 **BMP No. 4 – On-site Sewage Facilities**

The City will continue to refer all OSSF related complaints to the Galveston County Health District. In addition, the City has a “300’ Rule” regarding OSSFs; that states where if an OSSF is within 300’ of City right-of-way, the property must get off its OSSF and onto the City’s system. The GCMUDs do not have any on-site sewage facilities.

**Measurable Goals:**

- Continue to refer all OSSF complaints to the Galveston County Health District.
- Continue “300’ Rule” where identified OSSFs within 300’ of City ROW must be brought onto the City’s system.

**Evaluation:**

- Record and report number of OSSF complaints received annually.
- Record and report number of OSSFs brought onto City’s system, if any.

4.4.5 **BMP No. 5 – Illicit Discharge Ordinance**

The City will evaluate and revise, if necessary, its existing illicit discharge ordinance. The ordinance prohibits illicit discharges and connections, non-stormwater discharges that significantly contribute pollutants to the MS4, and illegal dumping. The ordinance includes
appropriate enforcement procedures/actions in addition to establishing the legal authority for the City to carry out inspection and monitoring procedures deemed necessary to ensure compliance. The GCMUDs will follow the City’s illicit discharge ordinances and refer enforcement cases, when necessary, to the City.

Measurable Goals:

- Evaluate and update ordinance, if necessary.
- Implement the ordinance modifications, if necessary.

Evaluation:

- Document the evaluation of the existing ordinance.
- Record the number of ordinance violations and compare with prior years to assess ordinance and BMP effectiveness.

4.4.6 BMP No. 6 – Illicit Discharge Detection and Elimination Program

The City will evaluate and update its existing illicit discharge detection and elimination program, if necessary. The program will contain procedures to identify illicit discharges, track to the source, eliminate, and follow-up procedures. The City will document all actions under this program. The City is undergoing significant growth and will need to evaluate the updated MS4 map. The City will select areas of concern for outfall screening (e.g. 303(d) listed waters, areas of previous water quality complaints, high bacteria water samples, etc.) but will determine the percentage of outfalls to be screened during the update of the IDDE program. The City plans to implement their illicit discharge program in the areas of the MUDs. MUDs will refer illicit discharges to the City.

Measurable Goals:

- Evaluate and update procedures for selecting areas with the most potential for illicit discharges, if necessary.
- Evaluate and update the screening, inspection and detection program to identify illicit discharges, if necessary.
- Evaluate and update procedures for tracking illicit discharges to their source, follow-up investigations, elimination procedures, and corrective actions.
- Evaluate and update existing regulations and policies regarding fats, oils, and grease, if necessary.

Evaluation:

- Document changes to high priority area selection procedures, if any.
- Track the number of screenings performed.
• Record and report the number of illicit discharges detected and followed up on annually, noting elimination method/corrective action taken.
• Document changes to regulations and policies, if any.
<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>Measurable Goals</th>
<th>Permit Years</th>
<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Sewer Mapping</td>
<td>Evaluate and update GIS work plan, if necessary, and compile list of additional information needed.</td>
<td>1 2 3 4</td>
<td>Public Works</td>
<td>Compile and report changes to GIS work plan, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Update MS4 outfall map.</td>
<td></td>
<td>Public Works</td>
<td>Document updates of system map.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update policies and procedures for GIS mapping to ensure program accuracy, if necessary.</td>
<td>3 4</td>
<td>Public Works</td>
<td>Compile and report on updates to policies and procedures for GIS mapping, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td>Field Staff Training</td>
<td>Provide annual classroom and field training to City staff that have the potential to encounter or respond to illicit discharges.</td>
<td></td>
<td>Public Works</td>
<td>Document the number of training classes provided on illicit discharges and names and number of staff participation.</td>
<td>Annually</td>
</tr>
<tr>
<td>Public Report of Illicit Discharges and Spills</td>
<td>Develop, implement and maintain a method of reporting illicit discharges and spills to the public.</td>
<td></td>
<td>Public Works</td>
<td>Record and report the number of illicit discharges and spills reported.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Develop and implement an internal list of referrals and internal procedures to direct public reports to the appropriate department.</td>
<td></td>
<td>Public Works</td>
<td>Document the internal referral of received illicit discharge and spill reports.</td>
<td>Annually</td>
</tr>
<tr>
<td>On-site Sewage Facilities (OSSFs)</td>
<td>Continue to refer all OSSF complaints to the Galveston County Health District.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of OSSF complaints received annually.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Continue “300’ Rule” where identified OSSFs within 300’ of City ROW must be brought onto the City’s system.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of OSSFs brought onto City’s system, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td>Illicit Discharge Ordinance</td>
<td>Evaluate and update ordinance, if necessary.</td>
<td></td>
<td>Public Works, Planning &amp; Development</td>
<td>Document the evaluation of the existing ordinance.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Implement the ordinance modifications, if necessary.</td>
<td></td>
<td>Public Works, Planning &amp; Development</td>
<td>Record the number of ordinance violations and compare with prior years to assess ordinance and BMP effectiveness.</td>
<td>Annually</td>
</tr>
<tr>
<td>Best Management Practice</td>
<td>Measurable Goals</td>
<td>Permit Years</td>
<td>Key City Departments/MUDs</td>
<td>Annual Evaluation</td>
<td>Annual Tracking Tool</td>
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<td>---------------------------------------------------------------</td>
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</tr>
<tr>
<td>Illicit Discharge Detection and Elimination Program</td>
<td>Evaluate and update procedures for selecting areas with the most potential for illicit discharges, if necessary.</td>
<td>1 2 3 4 5</td>
<td>Public Works</td>
<td>Document changes to high priority area selection procedures, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update the screening, inspection and detection program to identify illicit discharges, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Track the number of screenings performed.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update procedures for tracking illicit discharges to their source, follow-up investigations, elimination procedures, and corrective actions.</td>
<td></td>
<td>Public Works</td>
<td>Record and report the number of illicit discharges detected and followed up on annually, noting elimination method/corrective action taken.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update existing regulations and policies regarding fats, oils, and grease, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document changes to regulations and policies, if any.</td>
<td>Once during the permit term</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Begins Permit Year 1</th>
<th>Begins Permit Year 2</th>
<th>Begins Permit Year 3</th>
<th>Begins Permit Year 4</th>
<th>Begins Permit Year 5</th>
</tr>
</thead>
</table>

TABLE 4: ILLICIT DISCHARGE DETECTION AND ELIMINATION
5.0 MCM3: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

5.1 OVERVIEW

Construction site stormwater runoff control measures are designed to prevent soil and construction debris from entering the MS4 system from construction sites. During construction activities, vegetation and topsoil are stripped away, making the area especially vulnerable to erosion, and the activities performed on construction sites usually disturb a large amount of land and generate large amounts of waste.

5.2 TPDES PHASE II PERMIT REQUIREMENTS

Construction Site Stormwater Runoff Control

The MS4 operator, to the extent allowable under State and local law, must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to the small one acre or if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more of land. 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.

As a previous permit holder, the City will assess their previous program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. Unlike the City, the GCMUDs are new to the MS4 permit and will only participate in Level 2 requirements. The Level 2 and 3 requirements are as follows:

(a) Requirements for construction site contractors to, at a minimum:

(1) implement appropriate erosion and sediment control BMPs;
(2) stabilize soils of disturbed areas immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site;
(3) design, install, implement, and maintain effective BMPs to minimize the discharge of pollutants to the small MS4.

(b) Control waste such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

(c) The MS4 operator must develop procedures for:

(1) site plan review which incorporate consideration of potential water quality impacts;
(2) receipt and consideration of information submitted by the public; and
(3) site inspection and enforcement of control measures to the extent allowable under
state and local law.

(d) The MS4 operator must develop and implement procedures for inspecting large and small
construction projects

(e) All permittees shall implement a method for informing or training all the permittee’s field
staff that may perform construction site inspections or respond to stormwater
construction related water quality complaints.

(f) Additional Requirements for Level 3 and 4 Small MS4s (League City only)

(1) Construction Site Inventory: Permittees who operate Level 3 and 4 Small MS4s shall
maintain an inventory of all permitted active public and private construction sites that
result in a total land disturbance of one or more acres or that result in a total land
disturbance of less than one acre if it is part of a larger common plan or development or
sale.

5.3 DISCUSSION OF STORMWATER PROGRAMS

The City of League City currently utilizes a variety of construction site stormwater runoff control
measures to monitor and reduce pollutants from construction sites throughout the community.

5.3.1 BMP No. 1 – Construction Site Stormwater Runoff Control and Waste Control
Ordinances

The City will evaluate and update existing ordinances dealing with stormwater runoff control
and waste control. The ordinances require construction site operators to utilize erosion and
sediment control device during construction related activities, as well as sanctions to ensure
compliance. In addition, the ordinances require construction site operators to control and dispose
of on-site waste materials such as discarded building materials, concrete truck washout water,
chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to
water quality, as well as sanctions to ensure compliance. The City will review and revise, if
necessary, any current ordinances containing methods of enforcing violations, mirror the
requirements of the TCEQ Construction General Permit TXR150000, and mandate that
construction site operators install, maintain, and properly dispose of erosion and sediment
controls. The City’s existing stormwater ordinances are in Chapter 43 - Clean Water, and the
waste control ordinances are in Chapter 54 – Health and Sanitation. The GCMUDs will follow
the City’s construction ordinances (runoff control and waste control). The City plans to handle
all enforcement in the areas of the MUDs. The GCMUDs will refer enforcement cases, when
necessary, to the City.

Measurable Goals:

- Evaluate and update existing ordinances, if necessary.
• Implement any ordinance modifications and prohibit discharges according to the permit.

Evaluation:
• Develop ordinance modifications, if any.
• Record the number of ordinance violations and compare with prior years to assess ordinance and BMP effectiveness.

5.3.2 BMP No. 2 – Site Plan Reviews Process

The City will evaluate the existing city procedures for site plan review of construction plans so that potential water quality impacts are considered. The Construction Site Plan Review Procedures should consider potential water quality effects from construction activities including control of erosion, sediment, and waste at the site. The program will include the review of Stormwater Pollution Prevention Plans (SWPPP) and TCEQ permit documentation in order to ensure permit compliance. During the review process, staff will also consider the nature of construction, the topography of the site, soil characteristics of the site, and the condition of the receiving stream. Forms, checklists, and a standard format for the submission of plans will also be developed or revised. The GCMUDs do not review or approve plans. All plan reviews will be conducted by the City.

Measurable Goals:
• Continue to hold weekly Development Review Committee (DRC) meetings.
• Evaluate and update NOI submittal requirements, if necessary.
• Evaluate and update site plan review process, if necessary.
• Implement new site plan review process.
• Notify developers/design engineers on any updated stormwater requirements, if necessary.

Evaluation:
• Document the weekly DRC meeting topics and findings.
• Document the submittal of NOI by developers.
• Adopt new site plan review procedures.
• Record the number of plans reviewed and compare with number of plans submitted.
• Document list of developers/design engineers notified of new stormwater requirements, if any.

5.3.3 BMP No. 3 – Construction Site Inspection Program

The City will develop a program with procedures for construction site inspections and enforcement with the goal of reducing stormwater runoff pollutants to the MS4. Operators will
address erosion and sediment controls, soil stabilizations, selection of appropriate BMPs and development of SWPPP. City staff will perform construction site inspections on municipal and non-municipal construction activities throughout the City. All construction site inspections will be performed in accordance with the developed procedures, and enforcement proceedings will be administered in accordance with the construction site runoff control ordinance and construction site waste control ordinance. The program will require construction site operators to develop and maintain SWPPP, comply with TPDES General Permit for Construction Activities (or individual permit if applicable), and implement erosion and sediment control BMPs to minimize the discharge of pollutants:

- Require soil stabilization measures, and implementation of BMPs to control pollutants from equipment and vehicle washing and other wash waters.
- Require operators to minimize exposure to stormwater of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials.
- Minimize the discharge of pollutants from spills and leaks.

The City will conduct all construction site inspections within the GCMUD areas. All enforcement and inspections will go through the City.

**Measurable Goals:**

- Evaluate and update construction site inspection procedures and inspection forms, if necessary.
- Evaluate and update stormwater pollution prevention training for contractors, if necessary.
- Conduct site inspections during active construction.
- Resolve all non-compliance issues in a timely manner, number of days to be determined during program development.
- Perform enforcement proceedings in accordance with the adopted construction site ordinances and prohibited discharges.

**Evaluation:**

- Adopt updated inspection procedures, if any.
- Document contractor training attendance.
- Report the number of construction site inspections performed.
- Report the number of sites cited for non-compliance.
- Report the number of sites requiring enforcement proceedings.

**5.3.4 BMP No. 4 – Construction Site Inventory**

The City will develop and maintain an inventory of all public and private construction sites within the regulated areas of the small MS4. The inventory will help with identifying the need
for stormwater management BMPs at each location and an implementation plan for the effective management of the BMPs. The inventory is a Level 3 community requirement and therefore will not be adopted by the GCMUDs.

**Measurable Goals:**

- Develop an inventory of all public and private construction sites; update as needed.
- Develop a process to update inventory as necessary.

**Evaluation:**

- Report and document inventory creation and update.
- Document the set of procedures and schedule developed for updating inventory.

5.3.5 **BMP No. 5 – Information Submitted by the Public**

The City will develop procedures for the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities. This shall consist of a tracking process in which submitted information from the public, both written and verbal, is recorded and then provided to the construction site inspector for possible follow-up. The City’s procedures will be used for each of the GCMUDs as well.

**Measurable Goals:**

- Update City’s website to include a method (e.g. link, from, number or e-mail) for tracking status of information submitted by the public.
- Continue to maintain website and method of reporting construction-related submittals to the City.

**Evaluation:**

- Adopt procedures for tracking public inquiries, concerns, and information submitted.
- Record and report the number of public submissions to the contact page.

5.3.6 **BMP No. 6 – Staff Training**

The City will continue to train applicable City staff on stormwater construction site regulation and construction site inspections. The City will provide annual classroom and field training to City staff that have the potential to perform construction site inspections. Since the City is the entity conducting the construction stormwater inspections and is in charge of the enforcement, the GCMUDs will not participate in the program and refer all inspections and complaints to the City.
Measurable Goals:

- Continue to provide annual classroom and field training to City staff that have the potential to perform construction site inspections.

Evaluation:

- Document the number of training classes presented, the topics of discussion, and the staff that participated.
<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>Measureable Goals</th>
<th>Permit Years</th>
<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Site Stormwater Runoff Control and Waste Control Ordinances</strong></td>
<td>Evaluate and update existing ordinances, if necessary.</td>
<td></td>
<td>Public Works, Planning &amp; Development</td>
<td>Develop ordinance modifications, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Implement any ordinance modifications and prohibit discharges according to the permit, if necessary.</td>
<td></td>
<td>Public Works, Planning &amp; Development</td>
<td>Record the number of ordinance violations and compare with prior years to assess ordinance and BMP effectiveness.</td>
<td>Annually</td>
</tr>
<tr>
<td><strong>Site Plan Review Process</strong></td>
<td>Continue to hold weekly Development Review Committee (DRC) meetings.</td>
<td></td>
<td>Public Works</td>
<td>Document the weekly DRC meeting topics and findings.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update NOI submittal requirements, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document the submittal of NOI by developers.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update site plan review process, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Adopt new procedures.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Implement new site plan review process.</td>
<td></td>
<td>Public Works</td>
<td>Record the number of plans reviewed and compare with number of plans submitted.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Notify developers/design engineers on any updated stormwater BMP requirements, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document list of developers/design engineers notified of new stormwater requirements, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td><strong>Construction Site Inspection Program</strong></td>
<td>Evaluate and update construction site inspection procedures and inspection forms, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Adopt updated inspection procedures, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update stormwater pollution prevention training for contractors, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document contractor training attendance.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Conduct site inspections during active construction.</td>
<td></td>
<td>Public Works</td>
<td>Report the number of construction site inspections performed.</td>
<td>As Needed</td>
</tr>
<tr>
<td></td>
<td>Resolve all non-compliance issues in a timely manner, number of days to be determined during program development.</td>
<td></td>
<td>Public Works, Code Compliance</td>
<td>Report the number of sites cited for non-compliance.</td>
<td>As Needed</td>
</tr>
<tr>
<td></td>
<td>Perform enforcement proceedings in accordance with the adopted construction site ordinances and prohibited discharges.</td>
<td></td>
<td>Public Works, Code Compliance</td>
<td>Report the number of sites requiring enforcement proceedings.</td>
<td>As Needed</td>
</tr>
<tr>
<td>Best Management Practice</td>
<td>Measurable Goals</td>
<td>Permit Years</td>
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</tr>
<tr>
<td>Construction Site Inventory</td>
<td>Develop an inventory of all active public and private construction sites; update as needed.</td>
<td>1</td>
<td>Public Works</td>
<td>Report and document inventory creation and update.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Develop process to update inventory as necessary.</td>
<td>2</td>
<td>Public Works</td>
<td>Document the set of procedures and schedule developed for updating inventory.</td>
<td>Once during permit term</td>
</tr>
<tr>
<td>Information Submitted by the Public</td>
<td>Update City’s website to include a method (e.g. link, form, number or e-mail) for tracking status of information submitted by the public.</td>
<td>3</td>
<td>Public Works</td>
<td>Adopt procedures for tracking public inquiries, concerns, and information submitted.</td>
<td>Once during permit term</td>
</tr>
<tr>
<td></td>
<td>Continue to maintain website and method of reporting construction-related submittals to the City.</td>
<td>4</td>
<td>Public Works</td>
<td>Record and report the number of public submissions to the contact page.</td>
<td>Annually</td>
</tr>
<tr>
<td>Staff Training</td>
<td>Continue to provide annual classroom and field training to City staff that have the potential to perform construction site inspections.</td>
<td>5</td>
<td>Public Works</td>
<td>Document the number of training classes presented, the topics of discussion, and the staff that participated.</td>
<td>Annually</td>
</tr>
</tbody>
</table>
6.0 MCM4: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

6.1 OVERVIEW

Post-construction stormwater management in new development and redevelopment focuses on the implementation of controls to maintain good water quality conditions after an area has been developed. New development can also have a significant effect on water quality because during the course of development, natural landscapes are often replaced by impermeable roads, parking lots, sidewalks and other paved surfaces that lead to increases in both the volume of stormwater runoff and the accompanying pollutants that reach local water bodies.

The MS4s are required 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 or sale that discharge to the small MS4. The program must ensure that controls are in place to prevent or minimize water quality impacts.

6.2 TPDES PHASE II PERMIT REQUIREMENTS

Post Construction Stormwater Management in New Development and Redevelopment

To the extent allowable under state and local law, the MS4 operator must 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 of land, including projects less than one acre that are part of a larger common plan of development or sale that will result in disturbance of one or more acres, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. The permittee shall:

(a) Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community;

(b) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and re-development projects to the extent allowable under state and local law; and

(c) Ensure adequate long-term operation and maintenance of BMPs
6.3 DISCUSSION OF STORMWATER PROGRAMS

Currently, the City has several ordinances requiring erosion and sedimentation controls during construction activities. The following BMPs have been selected to address this MCM.

6.3.1 BMP No. 1 – Post-Construction Ordinance

The City will evaluate the existing city ordinances that address the control of post-construction site stormwater run-off and revise/update, if necessary. The City will continue to include selected structural and non-structural BMPs and ensure adequate long-term operation and maintenance of the BMPs. The ordinance will allow the City to develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment of one or more acres that discharge into the MS4. The GCMUDs will follow the City’s post construction ordinance and refer enforcement cases, when necessary, to the City.

Measurable Goals:

- Evaluate and update ordinance, if necessary.
- Implement the ordinance modifications, if necessary.

Evaluation:

- Develop ordinance modifications, if any.
- Record the number of ordinance violations/enforcement actions and compare with prior years to assess ordinance and BMP effectiveness.

6.3.2 BMP No. 2 – Post-Construction Site Inspections

The site owner/operator will be responsible for the upkeep of the detention pond once construction is complete. All site owners/operators will be responsible for performing annual inspections and submitting them to the City. The City will supply each site owner/operator with the appropriate inspection forms. The site owner/operators will be responsible for maintaining this paperwork and submitting to the City annually. The City will conduct all site inspections for the City and the GCMUDs.

Measurable Goals:

- Site owner/operator will inspect their ponds annually.

Evaluation:

- Record and report the number of annual inspection forms received from site owners/operators along with any noncompliance issues found.
6.3.3 BMP No. 3 – Post-Construction Development Review Procedures

In order to reflect the adoption of a post-construction stormwater management development code requiring post-construction controls for new development and redevelopment, the City’s existing development review procedures will be examined and revised, if necessary. In addition, the City will continue to integrate post-construction stormwater quality requirements into the existing inspection programs. The GCMUDs will abide by the City’s procedures as they reside within the City limits.

Measurable Goals:

- Evaluate Harris County Flood Control District Policy Criteria and Procedure Manual for sedimentation and erosion control and develop additional requirements, if necessary.
- Review submitted plans for compliance with floodplain requirements, adequacy of infrastructure design for drainage, use of detention ponds, etc.

Evaluation:

- Document the review process during and any additional requirements developed.
- Record the number of permits renewed and compare with number of permits requested.

6.3.4 BMP No. 4 – Long-term Operation and Maintenance Program

The City will evaluate and update operation and maintenance programs with regards post-construction stormwater quality requirements during the plan review process. Developers are required to submit plans and provisions for the long-term maintenance of any stormwater structural controls installed and implemented within their development in order to maintain stormwater quality. Routine maintenance of stormwater structural controls assist in the identification and repair of problems associated with the system before the problems become serious. The City retains the authority over the long-term operation and maintenance program within the areas of the GCMUDs. The City will conduct all evaluations, inspections, maintenance and plan review on behalf of the GCMUDs.

Measurable Goals:

- Evaluate and revise existing development plans and procedures to ensure long-term maintenance of structural controls, if necessary.
- Continue to implement updated maintenance program, if necessary.

Evaluation:

- Document revisions made to long-term operation and maintenance programs, if any.
- Document maintenance activities performed annually.
### TABLE 6-1: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>Measurable Goals</th>
<th>Permit Years</th>
<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Construction Stormwater Management Ordinance</td>
<td>Evaluate and update ordinance, if necessary.</td>
<td>1 2 3 4 5</td>
<td>Public Works, Planning &amp; Development</td>
<td>Develop ordinance modifications, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Implement the ordinance modifications, if necessary.</td>
<td></td>
<td>Public Works, Planning &amp; Development</td>
<td>Record the number of ordinance violations/enforcement actions and compare with prior years to assess ordinance and BMP effectiveness.</td>
<td>Annually</td>
</tr>
<tr>
<td>Post Construction Site Inspections</td>
<td>Site owner/operator will inspect ponds annually.</td>
<td></td>
<td>Public Works</td>
<td>Record and report the number of annual inspection forms received from site owners/operators along with any noncompliance issues found.</td>
<td>Annually</td>
</tr>
<tr>
<td>Post-Construction Development Review Procedures</td>
<td>Evaluate Harris County Flood Control District Policy Criteria and Procedure Manual for sedimentation and erosion control and develop additional requirements, if necessary.</td>
<td></td>
<td>Public Work</td>
<td>Document the review process during and any additional requirements developed.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Review submitted plans for compliance with floodplain requirements, adequacy of infrastructure design for drainage, use of detention ponds, etc.</td>
<td>1 2 3 4 5</td>
<td>Public Works, Planning &amp; Development</td>
<td>Record number of permits renewed and compare with number of permits requested.</td>
<td>Annually</td>
</tr>
<tr>
<td>Long-term Operation and Maintenance Program</td>
<td>Evaluate and revise existing development plans and procedures to ensure long-term maintenance of structural controls, if necessary.</td>
<td>1 2 3 4 5</td>
<td>Public Works</td>
<td>Document revisions made to long-term operation and maintenance programs, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Continue to implement updated maintenance program, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document maintenance activities performed annually.</td>
<td>Annually</td>
</tr>
</tbody>
</table>
7.0 MCM5: POLLUTION PREVENTION AND GOOD HOUSEKEEPING
FOR MUNICIPAL OPERATIONS

7.1 OVERVIEW

Municipalities conduct a variety of activities throughout their daily operations, which have the potential to affect water quality throughout the community. With the adoption and implementation of stormwater management policies and procedures, the City of League City and GCMUDs will protect stormwater quality and continue to deliver public services at the present service levels. A variety of municipal operations is affected by stormwater management policies and procedures. These municipal operations include, but are not limited to, parks maintenance, open space management, road and rights-of-way maintenance, water/wastewater utilities, fleet and building maintenance, city construction projects, and stormwater system maintenance.

7.2 TPDES PHASE II PERMIT REQUIREMENTS

Pollution Prevention/Good Housekeeping for Municipal Operations

A section within the SWMP must be developed to establish an operation and maintenance program, including an employee-training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The Level 2 and 3 Small MS4s are required to address the following goals:

(a) Permittee-owned Facilities and Control Inventory

(1) Permittees shall develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the small MS4.

(b) Training

A training program must be developed for all employees responsible for municipal operations subject to the pollution prevention/good housekeeping program. The training program must include training materials directed at preventing and reducing stormwater pollution from municipal operations. Materials may be developed, or obtained from the EPA, states, or other organizations and sources. Examples or descriptions of training materials being used must be included in the SWMP.

(c) Disposal of Waste

Waste materials removed from the small MS4 and waste that is collected as a result of maintenance of stormwater structural controls must be properly disposed.

(d) Contractor Requirements and Oversight

Contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control
measures, good housekeeping practices, and facility-specific stormwater management operating procedures. All permittees shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and standard operating procedures (SOPs).

(e) Municipal Operations and Municipal Activities

(1) The MS4 operator must evaluate the operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater from their own operations.
(2) Identify pollutants of concern that could be discharged from above O&M activities.
(3) Develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from O&M activities.
(4) Inspect pollution prevention measures.

(f) Structural Control Maintenance

If BMPs include structural controls, maintenance of the controls must be performed at a frequency determined by the MS4 operator and consistent with maintaining the effectiveness of the BMP.

Additional Requirements for Level 3 and 4 Small MS4s (League City only):

(g) Storm Sewer System Operation and Maintenance

(1) Permittees who operate Level 3 or 4 Small MS4s shall develop and implement an O&M program to reduce to the MEP the collection of pollutants in catch basins and other surface drainage structures.
(2) Permittees who operate Level 3 or 4 Small MS4s shall develop a list of potential problem areas. The permittees shall identify and prioritize problem areas for increased inspection.

(h) Operation and Maintenance Program to Reduce Discharges of Pollutants from Roads

Permittees who operate Level 3 or 4 Small MS4s shall implement an O&M program includes, if feasible and practicable, a street sweeping and cleaning program, or an equivalent BMP such as an inlet protection program, which will include an implementation schedule and waste disposal procedure.

(i) Mapping of Facilities

Permittees shall identify on a map in the regulated area under this permit, where the permittee-owned and operated facilities and stormwater controls are located.

(j) Facility Assessment
Permittees who operate Level 3 or 4 Small MS4s shall perform the following facility assessment in the regulated portion of the Small MS4 operated by the permittee:

1. Assessment of Facilities Pollutant Discharge Potential;
2. Identification of high priority facilities;
3. Documentation of Assessment Results

(k) Development of Facility Specific SOPs

Permittees who operate Level 3 or 4 Small MS4s shall develop facility specific stormwater management SOPs.

(l) Stormwater Controls for High Priority Facilities

1. Performing general good housekeeping;
2. Storing de-icing and anti-icing materials to the MEP that discharges from these materials are not discharged in stormwater runoff;
3. Developing SOPs for fueling operations and vehicle maintenance to address spill prevention and spill controls at permittee-owned facilities.
4. Developing SOPs that address equipment and vehicle washing activities at permittee-owned and operated facilities. Discharges of equipment and vehicle wash water to the Small MS4 or directly to receiving waters from permittee-owned facilities is not authorized under the general permit.

(m) Inspections

Permittees who operate Level 3 or 4 Small MS4s shall develop and implement an inspection program, which at a minimum must include periodic inspections of high priority permittee-owned facilities.

7.3 DISCUSSION OF STORMWATER PROGRAMS

The City of League City is currently performing various maintenance activities throughout the community in order to reduce pollutants from affecting stormwater quality.

7.3.1 BMP No. 1 – Inventory of Permittee Owned Facilities and Controls

The City will develop and maintain an inventory of all facilities and stormwater controls owned and operated by the City within the regulated areas of the small MS4. The inventory will help identify the need for stormwater management BMPs at each facility and an implementation plan for the effective management of the BMPs. Any City owned facilities or controls within the GCMUD jurisdictions will be captured on the League City inventory. It is understood that the GCMUDs do not own any facilities or own any structural controls themselves.
Measureable Goals:

- Perform an initial inventory of all permittee-owned facilities and structural controls.
- Compile a list of all TCEQ and other applicable permit numbers.
- Maintain and update inventory annually.

Evaluation:

- Document the creation of the inventory and the initial findings.
- Record and report all applicable permit numbers.
- Record and report updates to inventory data.

7.3.2 BMP No. 2 – Training Program for Municipal Employees

The City will continue to provide employee-training to prevent and reduce stormwater pollution from activities such as park maintenance, fleet and building maintenance, new construction, land disturbance, and stormwater system maintenance and promote good housekeeping procedures. Training programs ensure that stormwater quality programs are properly implemented and BMPs are properly installed and maintained. The GCMUDs will send a representative to attend any training provided by the City.

Measureable Goals:

- Provide annual training to staff regarding pollution prevention and good housekeeping.

Evaluation:

- Document number of training sessions provided and names/number of employees attending.

7.3.3 BMP No. 3 – Waste Storage and Disposal Program

Through BMP No. 1, the City will conduct an inventory of all storage locations and the types of materials utilized in municipal operations. The storage locations will be assessed for adequacy of storage and measures of stormwater protection. The City will develop a program to properly store, dispose of or recycle any unused or potentially harmful materials generated at City owned facilities. Staff will identify, implement, and maintain stormwater quality BMPs at storage facilities. The GCMUDs will follow the Waste Storage and Disposal Program, as applicable since the GCMUDs are not expected to store any materials.

Measureable Goals:

- Evaluate and update city facilities subject to waste disposal program, if necessary.
- Evaluate and update record keeping documents for waste storage and disposal program, if necessary.
Evaluation:

- Compile list of facilities subject to program.
- Document revisions to record keeping documents, if any.

7.3.4 BMP No. 4 – Contractor Requirements and Oversight

The City and GCMUDs will require contractors who work for the City to adopt the City’s stormwater pollution prevention practices.

Measurable Goals:

- Upon expiration of existing contracts that relate to City owned properties and have the potential to impact stormwater quality, City will evaluate and revise contracts to adopt stormwater quality BMPs.
- Implement revised contracts.

Evaluation:

- Record and report the number of landscaping contracts that follow the City adopted stormwater quality BMPs.
- Have new contracts adopt City’s stormwater program.

7.3.5 BMP No. 5 – Operations & Maintenance Program

The City will evaluate and update its existing operations and maintenance programs with the goal of preventing or reducing pollutant run-off from municipal operation into the storm sewer system. The operations to be included in this process shall include: park and open space maintenance, street 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, salt/sand storage locations, waste disposal from municipal operations, and structural control maintenance for BMPs. The program will include a list of all maintenance activities, maintenance schedules, and long-term inspection procedures for controls used to reduce floatables and other pollutants. As part of the program, procedures for the proper disposal of waste from structural controls and maintenance activities will be included. The GCMUDs will follow the Operations & Maintenance Program developed by the City, however all of the operations & maintenance on the storm sewer system and controls are performed by the City.

Measurable Goals:

- Evaluate and update existing city operations and maintenance programs, if necessary.
- Develop policies and procedures for reducing pollutant runoff into storm sewer system.
- Implement pollutant runoff reduction policies and procedures.
Evaluation:

- Document the review of existing programs.
- Document the development of pollutant reduction policies and procedures.
- Adopt policies and procedures, update annually.

7.3.6 **BMP No. 6 – Structural Control Maintenance**

The City will evaluate and update existing procedures for maintaining permanent structural controls at City owned facilities. Any BMPs implemented which call for structural controls will need to be inspected and maintained to retain BMP effectiveness. The GCMUDs will conduct Structural Control Maintenance under BMP No. 11 of this SWMP.

**Measurable Goals:**

- Evaluate and update existing procedures for maintaining structural controls.
- Continue to perform maintenance of structural controls.

Evaluation:

- Document the review of existing operations and maintenance activities.
- Record and report number of maintenance activities performed.

7.3.7 **BMP No. 7 – Operations and Maintenance Program to Reduce Discharges of Pollutants from Roads**

Street sweeping can capture a substantial amount of solids and pollutants from street surfaces before they are washed into the stormwater drainage system and discharged into local waterways. The Texas Department of Transportation (TxDOT) already has a street sweeping program that takes place in specific areas of the City. The City will look to develop and implement a street sweeping schedule and frequency, if necessary. The City will coordinate with TxDOT to evaluate and prioritize sweeping locations and frequency by pollution potential. The City will annually evaluate and determine whether increased street sweeping would be beneficial to its stormwater management effort. Materials swept from streets have a significant pollution potential and must be disposed of properly.

Currently, the City does not own or operate a street sweeper. As a Level 3 community, the City is now required to develop a street sweeping and cleaning program, or an equivalent BMP such as an inlet protection program to meet the new requirements of Part III(B)(5)(c)(2). The City will consider options of conducting street sweeping activities through contracting services or cooperative efforts with other local agencies. This BMP is only for Level 3 Small MS4s (League City).
Measurable Goals:

- Evaluate and explore funding options, cooperative efforts, and strategies to develop a street sweeping program.
- Develop a program to include:
  - street sweeping schedule and frequency;
  - policies/procedures for the handling and proper disposal of sweeper waste material; and
  - evaluation of source controls and/or inlet protection measures to creeks and storm drains.
- Implement a street sweeping program.

Evaluation:

- Document and report funding options and cooperative efforts/agreements.
- Document street sweeping program.
- Document adoption and implementation of street sweeping program.
- Report activities performed annually by the street sweeping program.

7.3.8 BMP No. 8 – Mapping of Facilities

The City will develop a map of all facilities owned and operated by the City. Facilities will include, not limited to; fire stations, storage facilities, fleet wash stations, parks, golf courses owned and operated by the City, water and waste water treatment plants, and city buildings. The map will show the location of any stormwater controls and notation of any additional stormwater permit requirements. This BMP is only for Level 3 Small MS4s (League City).

Measurable Goals:

- Develop a map of the area regulated under the permit, identifying permittee-owned and operated facilities and where stormwater controls are located.

Evaluation:

- Complete map of permittee-owned facilities regulated under the permit; update annually.

7.3.9 BMP No. 9 – Municipal Operations and Facility Survey

The City operates and maintains a variety of facilities and structural controls that have the potential to affect stormwater quality. The goal of the survey will be to assess the City’s operations and maintenance practices, identify pollutants of concern, develop, and implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater and perform pollution prevention inspection measures. The information collected during the survey
will serve as a baseline for BMP development and implementation at each facility. This BMP is only for Level 3 Small MS4s (League City).

**Measurable Goals:**

- Perform a municipal operations and facility survey.
- Evaluate/update existing stormwater BMPs and develop/implement additional BMPs identified in the municipal operations and facility survey, if necessary.

**Evaluation:**

- Report the number of facilities surveyed.
- Track the development and implementation of the stormwater BMPs, if necessary.

### 7.3.10 BMP No. 10 – Facility Inspection Program

Inspections facilitate early response to potential problems. With the completion of the municipal operations and facilities survey, the City will identify facilities deemed as “high priority” areas and associated pollutants that may affect stormwater runoff. The City will develop a program to document, assess, and identify areas of deficiency and recommendations for corrective actions. This BMP is only for Level 3 Small MS4s (League City).

**Measurable Goals:**

- Review and revise facility inspection procedures and inspection checklists, if necessary.
- Identify "high priority" facilities and their potential to contribute pollutants to stormwater runoff.
- Develop Standard Operating Procedures (SOPs) for high priority areas, which will identify BMPs installed, implemented, and maintained for the discharge of pollutants in stormwater (if applicable).
- Conduct facility inspections and document assessments, identifying any areas of deficiencies and corrective actions.

**Evaluation:**

- Document changes in inspection program, if any.
- Compile list of "high priority" facilities.
- Record and report SOPs for each "high priority" facility.
- Record and report number of facility inspections performed.
7.3.11 **BMP No. 11 – Mowing/Maintenance of District-Owned Ponds**

GCMUDs 43, 44, 45 and 46 will perform mowing and other maintenance activities on as-needed basis. GCMUDs 43, 44, & 46 will mow and maintain the District-owned ponds. GCMUD 45’s District-owned ponds are mowed and maintained by City of League City. During the permit term, GCMUD 45 will explore the possibility of mowing the grassed areas on a more regular basis than the City of League City.

**Measurable Goals:**

- Develop/continue to implement a mowing and maintenance program for district ponds.
- Mow and maintain ponds, side slopes, and perform litter and trash pick-up on as-needed basis.

**Evaluation:**

- Document implementation of mowing and maintenance program.
- Record and report maintenance schedule(s) and copies of invoices for completed work within each district
<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>Measurable Goals</th>
<th>Permit Years</th>
<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory of Permittee Owned Facilities and Controls</td>
<td>Perform inventory of all permittee-owned facilities and structural controls.</td>
<td></td>
<td>Public Works</td>
<td>Document the creation of the inventory and initial findings.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Compile list of all TCEQ and other applicable permit numbers.</td>
<td></td>
<td>Public Works</td>
<td>Record and report all applicable permit numbers.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Maintain and update inventory annually.</td>
<td></td>
<td>Public Works</td>
<td>Record and report updates to inventory data.</td>
<td>Annually</td>
</tr>
<tr>
<td>Training Program for Municipal Employees</td>
<td>Provide annual training to staff regarding pollution prevention and good housekeeping.</td>
<td></td>
<td>All Applicable Departments</td>
<td>Document number of training sessions provided and names/number of employees attending.</td>
<td>Annually</td>
</tr>
<tr>
<td>Waste Storage and Disposal Program</td>
<td>Evaluate and update city facilities subject to waste disposal program, if necessary.</td>
<td></td>
<td>All Applicable Departments, Purchasing</td>
<td>Compile list of facilities subject to program.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate and update record keeping documents for waste storage and disposal program, if necessary.</td>
<td></td>
<td>All Applicable Departments, Purchasing</td>
<td>Document revisions to record keeping documents, if any.</td>
<td>Annually</td>
</tr>
<tr>
<td>Contractor Requirements and Oversight</td>
<td>Upon expiration of existing contracts that relate to City owned properties and have the potential to impact stormwater quality, City will evaluate and revise contracts to adopt stormwater quality BMPs.</td>
<td></td>
<td>Public Works, Purchasing</td>
<td>Record and report the number of landscaping contracts that follow the City adopted stormwater quality BMPs.</td>
<td>As Needed</td>
</tr>
<tr>
<td></td>
<td>Implement revised contracts.</td>
<td></td>
<td>Public Works, Purchasing</td>
<td>Have new contracts adopt City’s stormwater program.</td>
<td>As Needed</td>
</tr>
<tr>
<td>Operations &amp; Maintenance Program</td>
<td>Evaluate and existing city operations and maintenance programs, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document review of programs.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Develop policies and procedures for reducing pollutant runoff into storm sewer system.</td>
<td></td>
<td>Public Works</td>
<td>Document development of policies and procedures.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Implement pollutant runoff reduction policies and procedures.</td>
<td></td>
<td>Public Works</td>
<td>Adopt policies and procedures, update annually.</td>
<td>Annually</td>
</tr>
<tr>
<td>Structural Control Maintenance</td>
<td>Evaluate and existing procedures for maintaining structural controls.</td>
<td></td>
<td>Public Works</td>
<td>Document the review of existing operations and maintenance activities.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Continue to perform maintenance of structural controls.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of maintenance activities performed.</td>
<td>Annually</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
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<th>Key City Departments/MUDs</th>
<th>Annual Evaluation</th>
<th>Annual Tracking Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations and Maintainance Program to Reduce Discharges of Pollutants from Roads</td>
<td>Evaluate and explore funding options, cooperative efforts, and strategies to develop a street sweeping program.</td>
<td>1, 2, 3, 4, 5</td>
<td>Public Works</td>
<td>Document and report funding options and cooperative efforts/agreements.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Develop a street sweeping program.</td>
<td></td>
<td>Public Works</td>
<td>Document street sweeping program.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement a street sweeping program.</td>
<td></td>
<td>Public Works</td>
<td>Document adoption and implementation of program; report activities performed annually as part of the program.</td>
<td>Annually</td>
</tr>
<tr>
<td>Mapping of Facilities</td>
<td>Develop a map of the area regulated under the permit, identifying permittee-owned and operated facilities and where stormwater controls are located.</td>
<td></td>
<td>Public Works</td>
<td>Complete map of permittee-owned facilities regulated under the permit; update annually.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td>Municipal Operations and Facility Survey</td>
<td>Perform municipal operations and facility survey.</td>
<td></td>
<td>Public Works</td>
<td>Report the number of facilities surveyed.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Evaluate/update existing stormwater BMPs and develop/implement additional BMPs identified in the municipal operations and facility survey, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Track the development and implementation of the stormwater BMPs, if necessary.</td>
<td>Annually</td>
</tr>
<tr>
<td>Facility Inspection Program</td>
<td>Review and revise facility inspection procedures and inspection checklists, if necessary.</td>
<td></td>
<td>Public Works</td>
<td>Document changes in inspection program, if any.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Identify &quot;high priority&quot; facilities and their potential to contribute pollutants to stormwater runoff.</td>
<td></td>
<td>Public Works</td>
<td>Compile list of &quot;high priority&quot; facilities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop Standard Operating Procedures (SOPs) for high priority areas, which will identify BMPs installed, implemented, and maintained for the discharge of pollutants in stormwater (if applicable).</td>
<td></td>
<td>Public Works</td>
<td>Record and report SOPs for each &quot;high priority&quot; facility.</td>
<td>Once during the permit term</td>
</tr>
<tr>
<td></td>
<td>Conduct facility inspections and document assessments, identifying any areas of deficiencies and corrective actions.</td>
<td></td>
<td>Public Works</td>
<td>Record and report number of facility inspections performed.</td>
<td></td>
</tr>
<tr>
<td>Mowing/Maintenance of District-Owned Ponds</td>
<td>Develop/continue to implement a mowing and maintenance program for District ponds. Mow and maintain ponds, side slopes and perform litter and trash pick-up on as-needed basis.</td>
<td></td>
<td>GCMUDs 43, 44, 45 and 46</td>
<td>Document implementation of program; Record and report maintenance schedule(s) and copies of invoices for completed work within each District.</td>
<td>As Needed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Begins Permit Year 1</th>
<th>Begins Permit Year 2</th>
<th>Begins Permit Year 3</th>
<th>Begins Permit Year 4</th>
<th>Begins Permit Year 5</th>
</tr>
</thead>
</table>

City of League City SWMP; Galveston County MUDs 43, 44, 45 and 46
8.0 RECORDKEEPING AND REPORTING

As detailed in TPDES General Permit TXR040000, the City must document and report the implementation of all stormwater BMPs throughout the course of the permit period, and the TCEQ will require that the City submit annual reports to document the development and implementation of the SWMP.

8.1 RECORDKEEPING

In order to properly evaluate the success of the SWMP, the City must document the development and implementation of all stormwater programs throughout the permit period, and as referenced in the TPDES general permit, the City must comply with a series of recordkeeping requirements:

- Retain all records, a copy of the TPDES general permit, and records of all data used to complete the application (NOI) for the general permit.
- Satisfy the public participation requirements, for a period of at least three years, or for the remainder of the term of this general permit, whichever is longer.
- The SWMP required by this general permit (including a copy of the general permit) must be retained at a location accessible to the TCEQ.
- Make the NOI and the SWMP available to the public if requested to do so in writing. Copies of the SWMP must be made available within 10 working days of receipt of a written request. Other records must be provided in accordance with the Texas Public Information Act.

As previously referenced, a copy of the SWMP and all annual reports will be accessible on the City’s stormwater website. Individuals may also contact the City to request additional program documentation. Reference the TPDES general permit for additional information regarding recordkeeping requirements.

8.2 REPORTING

The TPDES general permit requires that the City report to the TCEQ throughout the permit period and comply with specific reporting requirements:

- **Noncompliance Notification** - According to 30 TAC 305.125 (9), any noncompliance which may endanger human health or safety, or the environment, must be reported by the permittee to the TCEQ.
- **Other Information** – When the permittee becomes aware that it either submitted incorrect information or failed to submit complete and accurate information requested in an NOI, NOT, or NOC, or any other report, it must promptly submit the facts or information to the executive director.
- **Annual Report** – The MS4 operator must submit a concise annual report to the executive director within 90 days of the end of each permit year. The annual report must address the previous permit year and include the following information:
The status of the compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals;

Status of any additional control measures implemented by the permittee (if applicable);

Any MCM activities initiated before permit issuance may be included, under the appropriate headings, as part of the first year’s annual report;

A summary of the results of information (including monitoring data) collected and analyzed, if any, during the reporting period used to assess the success of the program at reducing the discharge of pollutants to the MEP;

A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting cycle;

Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;

The number of municipal construction activities authorized under this general permit and the total number of acres disturbed;

The number of non-municipal construction activities that occurred within the jurisdiction of the permittee (as noticed to the permittee by the construction operator);

Notice that the MS4 operator is relying on another government entity to satisfy some of its permit obligations (if applicable);

Each permittee must sign and certify the annual report in accordance with 30 TAC 305.128 (relating to Signatories to Reports); and

The annual report must be submitted to the following address:

Texas Commission on Environmental Quality
Stormwater & Pretreatment Team; MC – 148
P.O. Box 13087
Austin, Texas 78711-3087
9.0 REFERENCES


APPENDIX A: DEFINITIONS AND TERMINOLOGY

I. DEFINITIONS

**Arid Areas** – Areas with an average annual rainfall of less than ten (10) inches.

**Best Management Practices (BMPs)** – Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

**Catch Basins** – Storm drain inlets and curb inlets to the storm drain system. Catch basins typically include a grate or curb inlet that may accumulate sediment, debris, and other pollutants.

**Classified Segment** – A water body that is listed and described in Appendix A or Appendix C of the Texas Surface Water Quality Standards, at 30 Texas Administrative Code (TAC) § 307.10.


**Common Plan of Development or Sale** - A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development or sale is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities.

**Construction Activity** – Soil disturbance, including clearing, grading, and excavating; and not including routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g. the routine grading of exiting dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

**Small Construction Activity** is construction that results in land disturbances of equal to or great than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land.

**Large Construction Activity** is construction that results in land disturbances of equal to or great than five (1) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common
plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land.

**Construction Site Operator** - The person or persons associated with a small or large construction project that meets either of the following two criteria:

(a) The entity or entities that have operational control over construction plans and specifications (including approval of revisions) to the extent necessary to meet the requirements and conditions of this general permit; or

(b) The entity or entities that have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a stormwater pollution prevention plan (SWP3) for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

**Control Measures** – Any BMP or other method used to prevent or reduce the discharge of pollutants to water in the state.

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

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

**Edwards Aquifer** – As defined in 30 TAC § 213.3 (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestone in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil’s River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

**Edwards Aquifer Recharge Zone** – Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the TCEQ or the TCEQ website.

**Final Stabilization** - A construction site where either of the following conditions are met:

(a) All soil disturbing activities at the site have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70
percent of the native background vegetative cover for the area has been established on all
unpaved areas and areas not covered by permanent structures, or equivalent permanent
stabilization measures (such as the use of riprap, gabions, or geotextiles) have been
employed.

(b) For individual lots in a residential construction site by either:

(1) the homebuilder completing final stabilization as specified in condition (a)
above; or

(2) the homebuilder establishing temporary stabilization for an individual lot prior to
the time of transfer of the ownership of the home to the buyer and after informing
the homeowner of the need for, and benefits of, final stabilization.

(c) For construction activities on land used for agricultural purposes (e.g. pipelines across
crop or range land), final stabilization may be accomplished by returning the disturbed
land to its preconstruction agricultural use. Areas disturbed that were not previously used
for agricultural activities, such as buffer strips immediately adjacent to a surface water
and areas which are not being returned to their preconstruction agricultural use must meet
the final stabilization conditions of condition (a) above.

**General Permit** – A permit issued to authorize the discharge of waste into or adjacent to water
in the state for one or more categories of waste discharge within a geographical area of the state
or the entire state as provided by Texas Water Code (TWC) § 26.040.

**Ground Water Infiltration** - For the purposes of this permit, groundwater that enters a MS4
(including sewer service connections and foundation drains) through such means as defective
pipes, pipe joints, connections, or manholes.

**High Priority Facilities** – High priority facilities are facilities with a high potential to generate
stormwater pollutants. These facilities must include, at a minimum, the MS4 operator’s
maintenance yards, hazardous waste facilities, fuel storage locations, and other facilities where
chemicals or other materials have a high potential to be discharged in stormwater. Among the
factors that must be considered when giving a facility a high priority ranking are: the amount of
urban pollutants stored at the site, the identification of improperly stored materials, activities that
must not be performed outside (for example, changing automotive fluids, vehicle washing),
proximity to water bodies, proximity to sensitive aquifer recharge features, poor housekeeping
practices, and discharge of pollutant(s) of concern to impaired water(s).

**Hyperchlorinated Water** – Water resulting from hyperchlorination of waterlines or vessels,
with a chlorine concentration greater than 10 milligrams per liter (mg/L).

**Illicit Connection** – Any man-made conveyance connecting an illicit discharge directly to a
MS4.
**Illicit Discharge** – Any discharge to a MS4 that is not entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency firefighting activities.

**Impaired Water** – A surface water body that is identified on the latest approved CWA § 303(d) List as not meeting applicable state water quality standards. Impaired waters include waters with approved or established total maximum daily loads (TMDLs), and those where a TMDL has been proposed by TCEQ but has not yet been approved or established.

**Indian County** – Defined in 18 USC Section § 1151, means (a) all land within the limits of any Indian reservation under the jurisdiction of the United States (U.S.) Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

**Indicator Pollutant** – An easily measured pollutant, that may or may not impact water quality that indicates the presence of other stormwater pollutants.

**Industrial Activity** – Any of the ten (10) categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined in 40 Code of Federal Regulations (CFR) § 122.26(b)(14)(i)-(ix) and (xi).

**Maximum Extent Practicable (MEP)** – The technology-based discharge standard for MS4s to reduce pollutants in stormwater discharges that was established by the CWA § 402(p). A discussion of MEP as it applies to small MS4s is found in 40 CFR § 122.34.

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

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

(a) Owned or operated by the U.S., a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under the CWA §208 that discharges to surface water in the state;

(b) That is designated or used for collecting or conveying stormwater;
(c) That is not a combined sewer; and

(d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CPR § 122.2.

**Non-traditional Small MS4** – A small MS4 that often cannot pass ordinances and may not have the enforcement authority like a traditional small MS4 would have to enforce the SWMP. Examples of non-traditional small MS4s include counties, transportation authorities (including the Texas Department of Transportation), municipal utility districts, drainage districts, military bases, prisons and universities.

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

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

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

**Outfall** – A point source at the point where a small MS4 discharges to waters of the U.S. and does not include open conveyances connecting two MS4s, or pipes, tunnels, or other conveyances that connect segments of the same stream or other waters of the U.S. and are used to convey waters of the U.S. For the purpose of this permit, sheet flow leaving a linear transportation system without channelization is not considered an outfall. Point sources such as curb cuts, traffic or right-of-way barriers with drainage slots that drain into open culverts, open swales or an adjacent property, or otherwise not actually discharging into waters of the U.S. are not considered an outfall.

**Permittee** – The MS4 operator authorized under this general permit.

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

**Pollutant(s) of Concern** – For the purpose of this permit, includes biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from an MS4. (Definition from 40 CFR § 122.32(e)(3)).

**Redevelopment** – Alterations of a property that changed the “footprint” of a site or building in such a way that there is a disturbance of equal to or greater than one (1) acre of land. This term
does not include such activities as exterior remodeling, routine maintenance activities, and linear utility installation.

**Semiarid Areas** – Areas with an average annual rainfall of at least ten (10) inches, but less than 20 inches.

**Small Municipal Separate Storm Sewer System (MS4)** – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(a) Owned or operated by the United States, a state, city, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under CWA § 208;

(b) Designed or used for collecting or conveying stormwater;

(c) Which is not a combined sewer;

(d) Which is not part of a publicly owned treatment works (POTW) as defined at 40 CFR § 122.2; and

(e) Which was not previously authorized under a NPDES or a TPDES individual permit as a medium or large MS4, as defined at 40 CFR §§ 122.26(b)(4) and (b)(7).

This term includes systems similar to separate storm sewer systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings. For the purpose of this permit, a very discrete system also includes storm drains associated with certain municipal offices and education facilities serving a nonresidential population, where those storm drains do not function as a system, and where the buildings are not physically interconnected to an MS4 that is also operated by that public entity.

**Stormwater and Stormwater Runoff** – Rainfall runoff, snow melt runoff, and surface runoff and drainage.

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

**Stormwater Management Program (SWMP)** - A comprehensive program to manage the quality of discharges from the MS4.

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

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

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

**Traditional Small MS4** – A small MS4 that can pass ordinances and have the enforcement authority to enforce the SWMP. An example of traditional MS4s includes cities.

**Urbanized Area (UA)** – An area of high population density that may include multiple MS4s as defined and used by the U.S. Census Bureau in the 2000 and 2010 Decennial census.

**Waters of the United States** - (from 40 CFR § 122.2) 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 intrastate 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:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;
(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

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

(f) The territorial sea; and

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

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR§ 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water, which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.
## II. COMMONLY USED ACRONYMS

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<tr>
<th>Acronym</th>
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<tr>
<td>BMP</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>CGP</td>
<td>Construction General Permit, TXR150000</td>
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<td>CWA</td>
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<td>DMR</td>
<td>Discharge Monitoring Report</td>
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<td>EPA</td>
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<td>MS4</td>
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<td>Notice of Termination (to terminate coverage under a general permit)</td>
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<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>Stormwater Pollution Prevention Plan</td>
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<td>Texas Pollutant Discharge Elimination System</td>
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TWC  Texas Water Code
APPENDIX B: GCMUDs Certification Letters
Galveston County Municipal Utility District No. 43 has read The City of League City's Stormwater Management Program (SWMP) and has chosen to contribute to the development and/or implementation of the SWMP. Galveston County Municipal Utility District No. 43 will be responsible for meeting SWMP requirements within the boundaries of its regulated small MS4.

Galveston County Municipal Utility District No. 43 MS4  
TCEQ Customer Number: CN602563645  
Regulated Entity Number: Pending  
Approved Permit Number: Pending

Signature

Janice Hargrove
Name

President
Title

6/13/14
Date
Galveston County Municipal Utility District No. 44 has read The City of League City’s Stormwater Management Program (SWMP) and has chosen to contribute to the development and/or implementation of the SWMP. Galveston County Municipal Utility District No. 44 will be responsible for meeting SWMP requirements within the boundaries of its regulated small MS4.

**Galveston County Municipal Utility District No. 44 MS4**

TCEQ Customer Number: CN602565715
Regulated Entity Number: Pending
Approved Permit Number: Pending

[Signature]

**Doc Scott**

Name

[Title]

06-02-14

Date
Galveston County Municipal Utility District No. 45 has read The City of League City's Stormwater Management Program (SWMP) and has chosen to contribute to the development and/or implementation of the SWMP. Galveston County Municipal Utility District No. 45 will be responsible for meeting SWMP requirements within the boundaries of its regulated small MS4.

**Galveston County Municipal Utility District No. 45 MS4**  
TCEQ Customer Number: CN602618498  
Regulated Entity Number: Pending  
Approved Permit Number: Pending

[Signature]

**Todd Dillowski**  
Name

[Title]

6-3-14  
Date
Galveston County Municipal Utility District No. 46 has read The City of League City's Stormwater Management Program (SWMP) and has chosen to contribute to the development and/or implementation of the SWMP. Galveston County Municipal Utility District No. 46 will be responsible for meeting SWMP requirements within the boundaries of its regulated small MS4.

**Galveston County Municipal Utility District No. 46 MS4**

TCEQ Customer Number: CN602635179
Regulated Entity Number: Pending
Approved Permit Number: Pending

[Signature]

_E. Rusty Vidrine_
Name

_President_
Title

6/3/14
Date