CLEAR LAKE CITY WATER AUTHORITY STORMWATER MANAGEMENT PROGRAM

Prepared for:

Clear Lake City Water Authority

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EXECUTIVE SUMMARY

On December 13, 2013, the Texas Commission on Environmental Quality (TCEQ) issued Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 for stormwater discharges from MS4 Phase II cities in Texas. The Clear Lake City Water Authority (CLCWA) 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 December 12, 2018.

On January 24, 2019, the TCEQ reissued TPDES General Permit No. TXR040000 with new requirements and measures for issuing permits based on the 2010 U.S. Census Bureau's defined Urbanized Areas (UA). As a previous permit holder, CLCWA 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.

To obtain permit coverage, CLCWA must develop and submit a SWMP, Notice of Intent and an application fee within 180 days of the issuance of the Small MS4 General Permit.

This SWMP describes in detail the BMPs CLCWA has developed to address each of the required MCMs. 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 selected BMP's 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 BACKGROUND

1.1.1 Overview of CLCWA

CLCWA was created by House Bill 1003, 58th Legislature of Texas, Regular Session, on May 6, 1963 (compiled as 8280-280, Texas Revised Civil Statutes). CLCWA provides, operates, and maintains waterworks systems, sanitary sewer systems, and drainage facilities to serve lands within its boundaries. CLCWA operates under the authority of the Texas Constitution, Texas Revised Civil Statutes, Article 8280-280 and Chapters 49 and 51 of the Texas Water Code, as amended.

CLCWA sits almost entirely within southeast Harris County in the Clear Lake area, about 20 miles southeast of downtown Houston. CLCWA surrounds the Johnson Space Center on three sides, and Ellington Fields is located just outside CLCWA's northwest boundary.

At the time of its creation on May 6, 1963, CLCWA consisted of 12,269 acres (19 square miles). Through various annexations, the current total land area is approximately 16,106 acres (25 square miles). Approximately 13,490 acres (21 square miles) have already been developed for various commercial, residential, and public recreational uses. CLCWA is the largest water district in Texas.

The general area covered by CLCWA ranges in elevation from 10 feet mean sea level along the extreme eastern boundary to about 35 feet mean sea level along the northwestern boundary. Nearly all existing development areas or areas proposed for development within CLCWA are above the projected 10-year floodplain. The three major drainage channels are Horsepen Bayou, Armand Bayou, and Cow Bayou. The channels all discharge through Clear Lake into Galveston Bay.

1.1.2 Armand Bayou Watershed

CLCWA discharges to the Armand Bayou Watershed, specifically, Armand Bayou Tidal (segment 1113), Armand Bayou Above Tidal (segment 1113A), Horsepen Bayou Tidal (segment 1113B), an unnamed tributary to Horsepen Bayou (segment 1113C), Willow Springs Bayou (segment 1113D), Big Island Slough (segment 1113E), and two unnamed tributaries of Armand Bayou Above Tidal (segments 1113F and 1113H). The Armand Bayou Watershed covers approximately 59 square miles in area in Harris County, including portions of the cities of Houston, Pasadena, Deer Park, and La Porte. Armand Bayou attracts a variety of canoeists, kayakers, fishermen, and birdwatchers every day. In addition, there are several parks and recreational areas along the bayou, such as Bay Area Park and the Armand Bayou Nature Center. Figure 1-1 shows a map of the watershed.

Armand Bayou Watershed has various segments that do not meet State water quality standards (e.g. bacteria and dissolved oxygen). Regional stakeholders formed the Armand Bayou Watershed Partnership to assist in the development of the bacteria TMDLs and an implementation plan (I-Plan) for the bayou. Based on survey results and stakeholder preferences,

the Armand Bayou Watershed Partnership secured funding and began developing the bacteria TMDLs and I-Plan for Armand Bayou and several of its tributaries, including TCEQ WQ Segments 1113, 1113A, 1113B, 1113C, 1113D, and 1113E. The Houston-Galveston Area Council (H-GAC) is currently coordinating public participation for the project, and a Technical Support Document was prepared and released in April 2014 (https://www.tceq.texas.gov/waterquality/tmdl/89-armandbacteria.html).

On May 27, 2014, the Houston-Galveston Region Bacteria Implementation Group (B.I.G.) met for their annual meeting. At this meeting, the B.I.G. committee approved a formal petition from the Armand Bayou Watershed Partnership and its stakeholders to join the B.I.G. project area. At the moment, Armand Bayou does not have an approved TMDL.

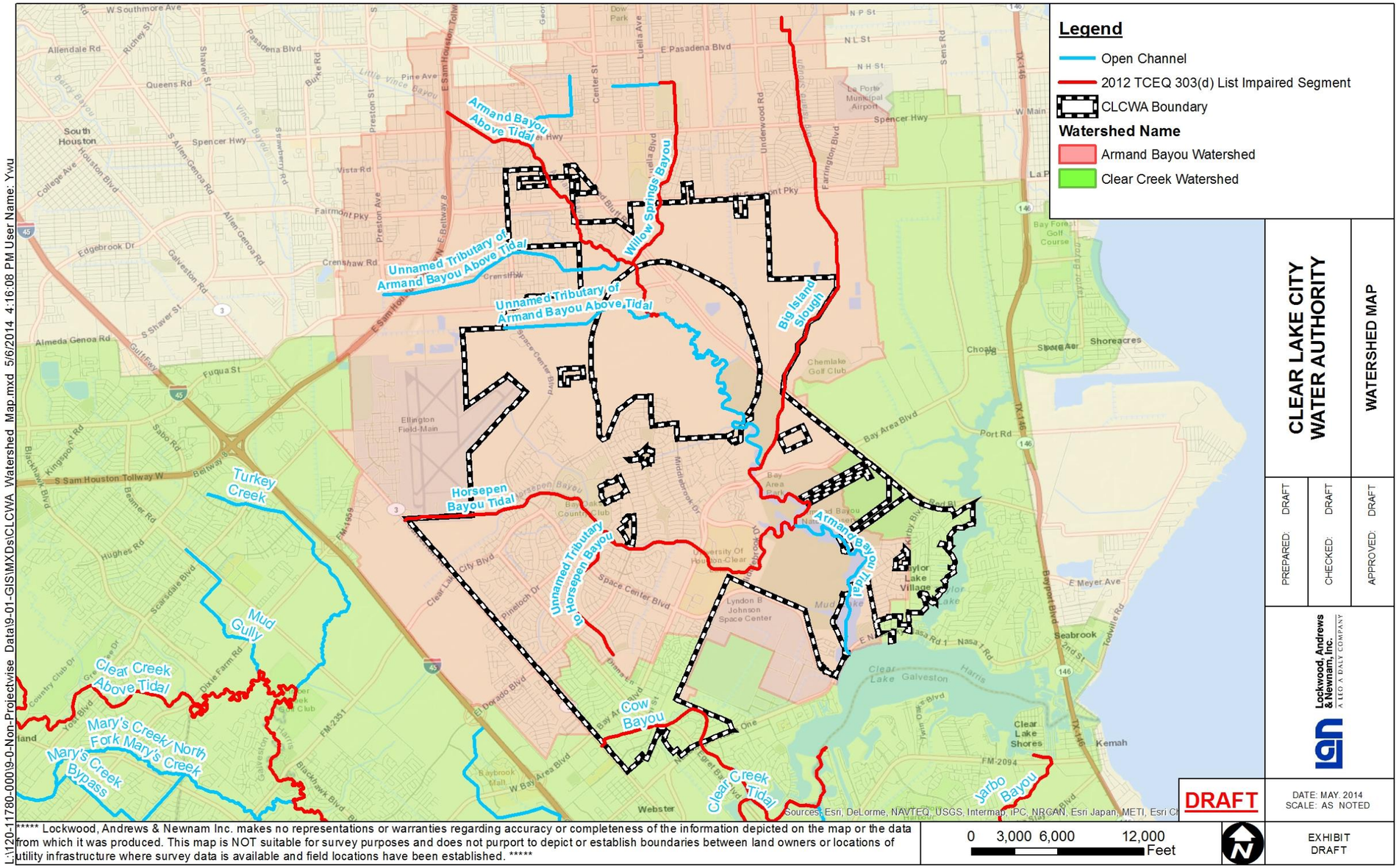
1.1.3 Clear Creek Watershed

CLCWA also discharges to the Clear Creek Watershed, specifically, Clear Creek (segment 1101), Cow Bayou (segment 1101), Clear Lake (segment 2425), and Taylor Lake (segment 2425A). The Clear Creek Watershed is approximately 180 square miles in area, of which, approximately 40 percent lies 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.

In the Houston-Galveston region, bacteria is a common constituent for impairment of several water bodies. On September 10, 2008, TCEQ adopted nine TMDLs for bacteria in Clear Creek and its tributaries. Clear Creek contains nine impaired segments, including two main-stem segments and seven tributary segments. The TCEQ used the TMDLs to determine the loadings of a particular pollutant that a water body can receive while meeting applicable Texas Surface Water Quality Standards, and to estimate the reduction in pollutant load needed from all identified sources to meet the standards.

The I-Plan developed to implement the Clear Creek TMDLs is a part of a larger regional I-Plan developed by the 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 interests, 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 of measurable outcomes, and communication strategies to disseminate to stakeholders and interested parties. The goal of the I-Plan is to restore impaired water bodies to standards that allow for primary contact recreational use. Figure 1-1 shows a map of the area watersheds.

FIGURE 1-1: WATERSHED MAP



1.2 STORMWATER REGULATON

1.2.1 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 National Pollutant Discharge Elimination System (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 amended the CWA again 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 NPDES program requiring permit coverage for stormwater discharges from medium and large municipal separate storm sewer systems (MS4s) with populations of 100,000 or more and several categories of industrial activities, including large 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, 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 December 13, 2013, the TCEQ issued TPDES General Permit No. TXR040000 for stormwater discharges from Phase II cities in Texas. The CLCWA obtained permit coverage within 180 days of the permit issuance, developed a five-year SWMP, and summarized stormwater management activities in permit required annual report submittals to the TCEQ. The permit expired on December 12, 2018.

After several delays, the TCEQ reissued TPDES General Permit No. TXR040000 on January 24, 2019. The new permit was based on the 2010 U.S. Census Bureau's 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 residents served.

Under the new permit, CLCWA is considered a Level 2 entity as it is considered a non-traditional 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 be given five years to fully implement a SWMP. CLCWA will also be required to submit annual reports to TCEQ during the permit period. This report describes recommended BMPs that will be incorporated into the SWMP and implemented by CLCWA within the TPDES permit period.

1.2.2 TPDES Phase II MCMs

The TPDES permit requires the permittee to select *appropriate* BMPs as a Level 2 entity 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.

To qualify for permit coverage, the MS4 operator must develop a SWMP that describes the BMPs CLCWA 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 CLCWA as a Level 2 permit holder 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 a policy (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 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 a policy (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 a policy (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 where CLCWA is the site operator, as an alternative to the MS4 operator seeking coverage under TPDES general permit TXR150000 for each municipal construction activity performed. CLCWA has opted not to participate in this MCM.

In the SWMP, the permittee 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 order to achieve permit requirements, CLCWA 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 2 community. CLCWA staff selected these BMPs and associated measurable goals after reviewing EPA and TCEQ guidance documentation, attending a series of training courses, consulting with other MS4s, and assessing the developmental needs and resources of CLCWA. 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.

1.2.3 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* – 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 policy 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 policy 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 policy 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. CLCWA plans to review their existing policies and modify as necessary.

1.2.4 Municipal Facilities Subject to TPDES Permits

CLCWA owns and operates a variety of facilities that are subject to TPDES regulations, as listed below:

CLCWA Municipal Facilities Subject to TCEQ Permits		
Facility Name	**Facility Address**	**TCEQ Permits**
CLEAR LAKE CITY WATER AUTHORITY MS4	AREA WITHIN THE CITIES OF PASADENA, HOUSTON, WEBSTER AND TAYLOR LAKE VILLAGE THAT IS LOCATED WITHIN THE HOUSTON UA	TXR040388 (Active)
ROBERT T SAVELY WATER RECLAMATION FACILITY	14210 MIDDLEBROOK DR HOUSTON TX 77058 1200	TXR05Q524; TX0022543; R10539001; WQ0010539001

2.0 IMPAIRED WATER BODIES

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

The 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 and shall assess the progress in controlling those pollutants. For discharges to impaired water bodies with an approved TMDL, the permittee's SWMP and annual reports must include the following information:

(a) Targeted controls;
(b) Measurable 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 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 permit 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 is the impairment/pollutant of concern, the permittee shall identify significant sources and 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.

CLCWA discharges to water bodies with and without approved TMDLs as presented below.

2.2 IMPAIRED WATER BODIES WITH TMDL/I-PLAN

CLCWA is divided by two watersheds, Clear Creek and Armand Bayou. Both Clear Creek and Armand Bayou are on the 2016 303(d) list as impaired due to bacteria and other constituents, so TMDLs and Implementation Plans (I-Plans) are required to be instituted to help reduce pollutants to an acceptable level. Currently, Clear Creek has approved TMDLs and an I-Plan from the Houston-Galveston Region Bacteria Implementation Group (B.I.G.). Armand Bayou, on the other hand, had TMDLs and an I-Plan in the concurrent development but submitted a formal petition to join the B.I.G. At the B.I.G. annual meeting on May 27, 2014, the committee formally approved to expand the B.I.G. project area to include Armand Bayou.

2.2.1 Clear Creek Watershed

Clear Creek does not meet Texas Surface Water Quality Standards for bacteria, dioxin in edible tissue and PCBs in edible tissue, 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 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. 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.

2.2.1.1 Targeted Controls

Targeted controls and selected implementation activities were evaluated and selected from the I-plan. The list of targeted controls may be found in Tables 2-1 and 2-2.

2.2.1.2 Measurable 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.

2.2.1.3 Identification of Benchmarks

CLCWA 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.

CLCWA will refer to the Waste Load Allocations (WLA) identified in the TMDLs as benchmarks. The determined benchmark value is obtained from Implementation Plan for Seventy-Two Total Maximum Daily Loads for Bacteria in the Houston-Galveston Region (page 123) for TMDL Segment: 1101 Clear Creek Tidal for Bacteria, is WLAMS4 Enterococci 8160 Billion MPN/day.

2.2.1.4 Monitoring/Assessment of Progress

CLCWA shall assess the progress toward the benchmarks. Program implementation measures are listed in Tables 2-1 and 2-2 for each measurable goal. CLCWA will evaluate BMP progress through their outfall inspections. CLCWA may also consider evaluating BMP progress through available online data that is local to the area (e.g. the Texas Stream Team data and the Clean Rivers Program hosted by the Houston Galveston Area Council).

2.2.2 ARMAND BAYOU

CLCWA also drains to Armand Bayou and its tributaries. These streams segments are Armand Bayou Tidal (Segment 1113_02), Armand Bayou Above Tidal (Segment 1113A_01), Willow Springs Bayou (Segment 1113D_01), Big Island Slough (Segment 1113E_01), Horsepen Bayou Tidal (Segment 1113B_01), and an unnamed tributary to Horsepen Bayou (Segments 1113C_01) as per EPA and TCEQ information. The constituents of impairments for Armand Bayou Tidal (Segment 1113_02) and Armand Bayou Above Tidal (Segment 1113A_01) are bacteria and dissolved oxygen, while the constituent of impairments for the four other stream segments is bacteria. In addition, the Armand Bayou Tidal (Segment 1113_02) also has impairments due to dioxin and PCBs in edible tissue. Bacteria is an approved TMDL for these segments, therefore; CLCWA will focus on BMPs specifically targeting bacteria in Armand Bayou as per the general permit Part II.D.4(b) as it applies to the CLCWA's jurisdictional area. During the first year of the permit, the CLCWA will evaluate if it, as an MS4, is contributing to the bacteria issues. A list of the BMPs/ measurable goals and an implementation schedule may be found in Table 2-2 as required by Part II.D.4(b).

TABLE 2-1 IMPAIRED WATER BODIES WITH APPROVED TMDLS AND I-PLANS				
Activity	**Causes/Sources**	**Measurable Goals**	**Evaluation**	**Schedule**
Clear Creek - Bacteria Implementation Group I-Plan				
WWTF 1.1: Impose more rigorous bacteria monitoring requirements	Wastewater treatment plant effluent	As permits come up for renewal or as new permits are written, CLCWA will incorporate new TCEQ monitoring requirements regarding wastewater treatment facilities into its permits.	CLCWA will abide by new permit requirements.	December 31, 2019 and in case of permit amendment
WWTF 1.2:: Impose stricter bacteria limits for WWTP effluent	Wastewater treatment plant effluent	As permits come up for renewal or as new permits are written, CLCWA will incorporate new TCEQ bacteria limits into its permits.	CLCWA will meet the lower limits.	December 31, 2019 and in case of permit amendment
WWTF 1.7: Use reclaimed water for irrigation	Wastewater treatment plant effluent	Document the 100% amount of reclaimed water utilized for irrigation systems treated at the WWTP, by December 31, 2019, then annually.	Record and report gallons of reclaimed water used annually.	December 31, 2019 then annually
SSS 2.2: Address fats, oils, and grease	Sanitary sewer system failures	Distribute informational material to the public regarding the impacts of dumping into sewers at least one time per year by December 31, 2019, then annually.	Record and report the distribution method chosen, the number of informational materials distributed.	December 31, 2019 then annually
SSS 2.3: Encourage appropriate mechanisms to maintain function at lift stations	Sanitary sewer system failures	Assess lift station operations and maintenance procedures by December 31, 2019, then annually.	Record and report number of lift station inspections performed annually.	December 31, 2019 then annually
OSSF 3.1: Identify and address failing systems	Nonpoint sources from malfunctioning on-site sewage facilities	Update ARC-GIS maps of the CLCWA area to reflect 100% of Sanitary Sewer Overflow (SSO) location points and information and 100% of On-site Sewage Facilities (OSSFs) within service area by December 31, 2019, then annually.	Record and report the 100% of the SSOs and OSSFs monitored annually.	December 31, 2019 then annually
		Identify and address 100% of the high priority areas where failing systems are in the process of being fixed or in need of being replaced in the SSO Mitigation Plan by December 31, 2019, then annually.	Update SSO Mitigation Plan, to maintain OSSFs and mitigate SSOs, and provide as an attachment to the MS4 annual report.	December 31, 2019 then annually
Stormwater and Land Development 4.2: Model Best Practices	Stormwater runoff	CLCWA will familiarize with HGAC area Implementation Plan by December 31st, 2022.	Record and report the any ideas deemed potentially useful and practical for CLCWA.	December 31st, 2022
Construction 5.1: Increase compliance with and enforcement of stormwater management permits	Construction site runoff	Inspect and evaluate 100% of the BMPs utilized at construction sites. Ensure BMPs are installed correctly and per the project's Storm Water Pollution Prevention Plan. Report any discrepancies to the Contractor and record in weekly inspection notes.	Record and report 100% of deficiency issues inspected at construction sites by December 31, 2019, then annually.	December 31, 2019 then annually
Illicit Discharges and Dumping 6.1: Detect and eliminate illicit discharges	Illicit discharges and dumping	Monitor and document 100% of the illicit discharges observed by CLCWA employees' inspection or reports received from the illicit discharge hotline.	Record 100% of illicit discharges and CLCWA's response for each illicit discharge, by December 31, 2019, then annually.	December 31, 2019 then annually
Illicit Discharges and Dumping 6.2: Improve regulation and enforcement of illicit discharges	Illicit discharges and dumping	Implement illicit discharge enforcement regulations and policies and evaluate effectiveness of enforcement actions by December 31, 2019, then annually.	Record and report number of enforcement actions taken annually.	December 31, 2019 then annually

TABLE 2-2.
STRATEGIES FOR ADDRESSING BACTERIA IMPAIRED WATER BODIES

Strategy	Best Management Practices	Measurable Goals	Evaluation	Evaluation Schedule
Sanitary Sewer Systems	Make Improvements to Reduce Overflows	Address and eliminate 100% of the sanitary sewer overflows (SSOs) in SSO Mitigation Plan.	Record 100% of the reported overflows and measures to eliminate.	December 31, 2019 then annually
	Address Lift Station Inadequacies	Perform annual inspections on 100% of CLCWA's lift stations and document inadequacies. Inadequacies will be prioritized and scheduled for repairs.	Record 100% of lift station inspections and compare to schedule of repair.	December 31, 2019 then annually
	Improve Reporting of Overflows	Evaluate methods to improve SSOs in SSO Mitigation Plan.	Document number of overflow reports and final resolutions. Compare the number of reports to previous years.	December 31, 2019 then annually
	Strengthen Requirements to Reduce Blockage from Fats, Oils, and Grease (FOG)	Implement public education efforts on illicit discharges and FOG.	Document and record 100% of the public education campaigns promoting awareness for FOG.	December 31, 2019 then annually
On-site Sewage Facilities (OSSFs)	Identify and Address Failing Systems	CLCWA will address 100% of the OSSFs through the CLCWA's MCM 2 Illicit Discharge Detection and Elimination Program.	CLCWA will track 100% of the temporary OSSF's entering their jurisdiction.	December 31, 2019 then annually
	Address Inadequate Maintenance of OSSFs	Address inadequate maintenance of 100% OSSFs through the CLCWA's Stormwater policy.	Track 100% of water quality complaints that CLCWA receives and report annually. If appropriate, CLCWA will take enforcement actions against 100% of those that are deemed appropriate through their illicit discharge policy.	December 31, 2019 then annually
Illicit Discharges and Dumping	Make Greater Effort to Reduce Waste Sources of Bacteria	CLCWA will implement and enforce policy against 100% illegal dumping.	Respond to 100% of reported illicit discharges and dumping.	December 31, 2019 then annually
Animal Sources	Expand Existing Management Programs to Identify and Target Animal Sources	CLCWA does not have jurisdiction to enforce animal sources. CLCWA will work the surrounding MS4s to refer animal source related complaints to the appropriate entity. Most of CLCWA's area is developed and does not harbor feral hogs.	Document 100% of animal sources found and/or referred.	December 31, 2019 then annually

TABLE 2-2. STRATEGIES FOR ADDRESSING BACTERIA IMPAIRED WATER BODIES				
Strategy	**Best Management Practices**	**Measurable Goals**	**Evaluation**	**Evaluation Schedule**
Residential Education	Bacteria Discharging from a Residential Site During Runoff Events or Directly	CLCWA will provide at least one specific message(s) about bacteria and what residents can do to minimize impacts and send information to residents regarding bacteria impacts to receiving streams.	Send educational material to 100% of CLCWA residential customers on bacteria discharges and ways of reducing impacts to water quality.	December 31, 2019 then annually
	Fats, Oils, and Grease (FOG) Clogging Sanitary Sewer Lines & Resulting Overflows	CLCWA will provide at least one educational material focusing on FOG issues and the reporting of overflows for distribution. Electronic (website and social media) and hardcopy materials (with their Consumer Confidence Reports) will be distributed.	Record number of educational material distributed, along with the mechanisms to distribute.	December 31, 2019 then annually
	Pet Waste	CLCWA currently does provide pet waste bag stations in the Exploration Green Detention Facility (EGDF)recreation area. CLCWA will restock pet waste bag station annually EGDF All other parks fall under the jurisdiction of the cities. The CLCWA can help promote reduction of pet waste runoff on the CLCWA website, mailed information and social media.	Record 100% of educational material distributed, along with website and social media posts.	December 31, 2019 then annually

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 CLCWA'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.

CLCWA has been and continues to be dedicated to educating the Clear Lake 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. In addition, CLCWA looks to involve the public through various opportunities in stormwater quality decision making and hands on projects affecting stormwater quality.

3.2 TPDES PHASE II PERMIT REQUIREMENTS FOR MCM1

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 Authority 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 partner 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 Authority 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) 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 MCM1 STORMWATER PROGRAMS

CLCWA 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 Materials for Elementary Schools

CLCWA will continue its practice of purchasing stormwater educational kits from the Harris Galveston Coastal Subsidence District and distribute the kits to local elementary school students as part of the educational program. CLCWA will evaluate and update the educational material included in the kits, if necessary.

Measurable Goals:

- Update education material by December 31, 2019.
- Continue to purchase test kits and distribute at a minimum 150 kits by December 31, 2019, then annually for elementary schools.

Evaluation:

- Post copy of updated educational information to CLCWA website by December 31, 2019.
- Record and report number of kits purchased and distributed each year by December 31, 2019, then annually.

3.3.2 BMP No. 2 – Distribute Stormwater Educational Materials to Residents

CLCWA will distribute stormwater educational information to all CLCWA customers at least once a year through the mail. Updates will be provided on CLCWA's Consumer Confidence Report and cover a variety of topics including bacteria, fats/oils/grease, and stormwater runoff.

Measurable Goals:

- Distribute stormwater quality updates to 100% of CLCWA customers by December 31, 2019, then annually through the mail.

Evaluation:

- Record and report the number of consumer confidence reports distributed by December 31, 2019, then annually and when they were distributed.

3.3.3 BMP No. 3 – Links to Stormwater Educational Materials to be Posted on CLCWA Website

CLCWA will update its website to include information and links regarding bacteria and bacteria reduction practices. Residents, visitors, public service employees, businesses, commercial and industrial facilities, and all construction site personnel working within the MS4, can access and become more informed about proper procedures regarding the reduction of stormwater pollution and bacteria. Copies of the educational materials and the SWMP will also be available to view at CLCWA headquarters.

Measurable Goals:

- Update website to include information and links about stormwater quality, including fats, oils and grease and how bacteria may affect stormwater quality and methods to reduce bacteria to the MS4 at least four times a year by December 31, 2019, then annually.

Evaluation:

- Record and report number of stormwater educational information updates posted to the CLCWA website by December 31, 2019, then annually and when the updates were made.

3.3.4 BMP No. 4 – Public Notice Requirements

CLCWA website will be updated monthly to show the date and time for the board meetings. The public is encouraged to attend the monthly board meetings to express any questions, comments, or concerns regarding stormwater quality issues and the SWMP. The CLCWA will continue to comply with all state and local public notice requirements, with copies of the SWMP available to view at CLCWA headquarters.

Measurable Goals:

- Post updates every month during permit term on website for board meetings.

Evaluation:

- Record and report any public comments from the board meetings, along with CLCWA's response to those public comments on the website every month.

3.3.5 BMP No. 5 – Social Media Outreach

CLCWA will evaluate and continue to use the established social media platform to disseminate stormwater quality information to the public. CLCWA will post items related to stormwater quality such as bacteria, recycling, and citizen participation.

Measurable Goals:

- Post stormwater quality information, bacteria related items, and environmental activities promoting recycling and good stewardship to CLCWA social media platforms at least four times a year by December 31, 2021, then annually.

Evaluation:

- Record and report the number of updates provided through social media, minimum four posts annually by December 31, 2021, then annually.

TABLE 3-1: PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT							
Best Management Practice	**Measurable Goals**	**Permit Years**					**Evaluation**
		1	**2**	**3**	**4**	**5**	
Stormwater Educational Materials for Elementary Schools	Update education material by December 31, 2019, to include information about bacteria.						Post copy of updated bacteria educational information to CLCWA website by December 31, 2019.
	Continue to purchase stormwater education kits and distribute at a minimum 150 kits by December 31, 2019, then annually for schools.						Record and report number of kits purchased and distributed annually by December 31, 2019, then annually.
Distribute Stormwater Educational Materials to Residents	Distribute stormwater quality updates to 100% of all CLCWA customers by December 31, 2019, then annually through the mail.						Record and report the number of consumer confidence reports distributed by December 31, 2019, then annually and when they were distributed.
Links to Stormwater Educational Materials Placed on CLCWA Website	Update website to include information and links about stormwater quality, including fats, oils and grease and how bacteria may affect stormwater quality and methods to reduce bacteria to the MS4 by at least four times a year by December 31, 2019, then annually.						Record and report number of stormwater educational information updates posted to the CLCWA website by December 31, 2019, then annually and when the updates were made.
Public Notice for Board Meetings	Post updates every month during permit term on the CLCWA website for board meetings.						Record and report any public comments from the board meetings, along with the CLCWA's response to them every month.
Social Media Outreach	Post stormwater quality information, bacteria related items, and environmental activities promoting recycling and good stewardship to CLCWA social media platforms at least four times a year by December 31, 2021, then annually.						Record and report the number of updates provided through social media, minimum four posts annually by December 31, 2021, then annually.

Begins Permit Year 1	Begins Permit Year 2	Begins Permit Year 3	Begins Permit Year 4	Begins Permit Year 5

4.0 MCM2: ILLICIT DISCHARGE DETECTION AND ELIMINATION

4.1 OVERVIEW

The illicit discharge detection and elimination (IDDE) 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 FOR MCM2

Illicit Discharge Detection and Elimination:

(a) Permit Requirements

(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 the 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 the general permit, and must meet the requirements of Part II.D.3 of the general permit.

4.3 ALLOWABLE NON-STORMWATER DISCHARGES FROM SMALL MS4

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.

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

4.4 DISCUSSION OF MCM2 STORMWATER PROGRAMS

CLCWA does not maintain on-site sewage facilities (OSSF). CLCWA is aware that two exist within their jurisdiction and are considered isolated. Since there are no concerns for OSSFs within their MS4, the CLCWA will not develop a BMP to address. CLCWA will respond to water quality related complaints to determine if any OSSF is the source. Enforcement actions may be referred to the County or State pollution control agencies.

CLCWA currently implements a variety of illicit discharge detection programs to identify sources of stormwater pollution throughout the community.

4.4.1 <u>BMP No. 1 – System Inspections</u>

CLCWA currently contracts the television inspections of approximately 2% of the storm sewer system annually. From the television inspections, CLCWA's Engineer is able to determine

locations of any illicit discharges and determine which storm sewers require rehabilitation to eliminate the illicit discharges.

Measurable Goals:

- Inspect 2% of the storm sewer system by December 31, 2019, then annually; staff will keep track 100% of the system inspections.

Evaluation:

- Record and report what percentage and which parts of the storm sewer system are inspected by December 31, 2019, then annually.

4.4.2 BMP No. 2 – Hotline and Complaint Submittal

CLCWA will update its website to contain a hotline and email address for reporting illicit discharges and/or spills. The public is encouraged to use hotline and/or email address if they have knowledge or are concerned about illicit discharges or spills within the MS4.

CLCWA or the responsible party will respond within 72 hours of the phone call or email. All illicit discharges within the MS4 storm sewer lines will be subject to investigation by CLCWA and consequential actions will be enforced according to CLCWA Policy Manual Section ENF-20. Other illicit discharges, originating in the streets, fall under the jurisdiction of either Harris County or the city in which that road is located: Houston, Pasadena, Webster, or Taylor Lake Village. Implementation and enforcement shall come from that city's or Harris County's SWMP. Once the water flows through the outfalls and into the ditches listed above, all responsibility, including implementation and enforcement of BMPs, transfers to the HCFCD's SWMP.

Measurable Goals:

- CLCWA website to include an up-to-date hotline and/or email address for residents to report all illicit discharges and spills that occurred in that permit year by December 31, 2019, then annually. CLCWA will respond to 100% of reported spills and illicit discharges.

Evaluation:

- Record and report the number of illicit discharges and spills reported through the hotline and/or email by December 31, 2019, then annually.

4.4.3 BMP No. 3 – Used Oil Disposal Center

CLCWA operates and maintains a used oil disposal center that collects used oil before sending it to a recycling facility. The recycling of used motor oil benefits the environment, the public health, and the economy. Oil improperly disposed of in landfills, ditches, waterways, or dumped on the ground or down storm sewers can migrate into surface and ground water. The CLCWA

will continue to post the disposal center's location on the Authority's website, and CLCWA staff will keep track of oil obtained on an annual basis.

Measurable Goals:

- Post used oil drop of location on CLCWA website and collect oil and record the number of gallons collected monthly by December 31, 2019, then annually.

Evaluation:

- Record and report the amount of used motor oil collected by December 31, 2019, then annually.

4.4.4 BMP No. 4 – Storm System Map

CLCWA will update their storm system map that shows all outfalls that discharge directly into waters of the U.S. All revisions and additions to the map will come from CLCWA's previous map, on-going television inspections and new development plans. The storm system map will also contain existing street names, outfall locations, location of Waters of the U.S., surface waters receiving discharges from CLCWA's outfalls and priority areas identified under Part III.B.2(e)(1) of the general permit.

Measurable Goals:

- ARC-GIS storm sewer system map will be updated by December 31, 2019, then annually.

Evaluation:

- Record and report the updates to the storm sewer system map by December 31, 2019, then annually.

4.4.5 BMP No. 5 – Detection and Elimination Program

CLCWA will develop and implement an illicit discharge detection and elimination program. CLCWA will continue to sample 5 random outfalls per year based on procedures for selecting areas with the most potential for illicit discharges. CLCWA will update existing policies/procedures and develop new policies/procedures as necessary to screen, inspect, and detect illicit discharges. In addition, CLCWA will perform elimination procedures and corrective actions for any detected illicit discharges and conduct follow-up inspections.

Measurable Goals:

- Develop procedures for selecting areas with the most potential for illicit discharges. CLCWA will document 100% of follow up, elimination and corrective actions by December 31, 2022.
- Inspect five random outfalls for pollutant discharge by December 31, 2022, then annually.

Evaluation:

- Record and report number of high priority areas for screening, illicit discharges detected, corrective actions and follow-up investigations conducted by December 31, 2022.
- Document location and results of random outfall inspections by December 31, 2022, then annually.

4.4.6 BMP No. 6 – Field Staff Training

CLCWA will continue to provide annual classroom and field training to staff that have the potential to encounter or respond to illicit discharges.

Measurable Goals:

- Provide at least one training to CLCWA's staff that has the potential to encounter or respond to illicit discharge by December 31, 2022, then annually.

Evaluation:

- Record and report the number of staff members provided training on illicit discharge and elimination as well as the names of staff participating by December 31, 2022, then annually.

4.4.7 BMP No. 7 – Illicit Discharge Policy

CLCWA developed an illicit discharge policy which was adopted in 2014. The policy prohibits illicit discharges, illicit connections, illegal dumping, and all non-stormwater discharges that significantly contribute pollutants to the MS4. The policy includes appropriate enforcement procedures and actions in addition to establishing the legal authority for the CLCWA to carry out inspection and monitoring procedures deemed necessary to ensure compliance.

Measurable Goals:

- Implement existing policy and document 100% of violations and enforcement actions applied by December 31, 2019, then annually.

Evaluation:

- Record and report the number of policy violations by December 31, 2019, then annually.

TABLE 4-1: ILLICIT DISCHARGE DETECTION AND ELIMINATION							
Best Management Practice	**Measurable Goals**	**Permit Years**					**Evaluation**
		1	**2**	**3**	**4**	**5**	
System Inspection	Inspect 2% of the storm sewer system by December 31, 2019, then annually; staff will keep track of 100% of the system inspections.						Record and report what percent and which parts of the storm sewer system are inspected by December 31, 2019, then annually.
Hotline and Complaint Submittal (Public Reporting)	CLCWA website to contain an up-to-date hotline and/or email address for residents to report illicit discharges and spills that occurred in that permit year by December 31, 2019, then annually. CLCWA will respond to 100% of report spills and illicit discharges						Record and report the number of illicit discharges and spills reported through the hotline and email by December 31, 2019, then annually.
Used Oil Disposal Center	Post used oil drop of location on CLCWA website and collect oil and record the number of gallons collected monthly by December 31, 2019, then annually.						Record and report the amount of used motor oil collected by December 31, 2019, then annually.
Storm System Map	ARC-GIS storm sewer system map will be updated by December 31, 2019, then annually.						Record and report the updates to the storm sewer system map by December 31, 2019, then annually.
Detection and Elimination Program	Develop procedures for selecting areas with the most potential for illicit discharges. CLCWA will document 100% of follow up, elimination and corrective actions by December 31, 2022.						Record and report number of high priority areas for screening, illicit discharges detected, corrective actions and follow-up investigations conducted by December 31, 2022.
	Inspect five random outfalls for pollutant discharge by December 31, 2022, then annually.						Document location and results of random outfall inspections by December 31, 2022, then annually.
Field Staff Training	Provide at least one training to CLCWA's staff that has the potential to encounter or respond to illicit discharge by December 31, 2022, then annually.						Record and report the number of staff members provided training on illicit discharge and elimination as well as the names of staff participating by December 31, 2022, then annually.
Illicit Discharge Policy	Implement existing policies and document 100% of violations and enforcement actions applied by December 31, 2019, then annually.						Record and report the number of policy violations by December 31, 2019, then annually.

Begins Permit Year 1	**Begins Permit Year 2**	**Begins Permit Year 3**	**Begins Permit Year 4**	**Begins Permit Year 5**

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 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. This process has generally been found to lead to high levels of sediment, phosphorus, nitrogen, pesticides, petroleum derivatives, construction chemicals, and solid wastes in receiving streams nationwide.

5.2 TPDES PHASE II PERMIT REQUIREMENTS ON MCM3

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, as per the TPDES Construction General Permit TXR150000. The program must include the development and implementation of a policy 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, CLCWA 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.

(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 incorporates 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.

5.3 DISCUSSION OF MCM3 STORMWATER PROGRAMS

CLCWA 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 – Review Construction Site Plans

CLCWA staff will review construction site plans in order to address and manage the stormwater runoff from construction activities at sites one acre and greater, including sites that are part of a larger common plan of development. Staff will review and ensure all regulated construction sites have developed a SWPPP, submitted a NOI, and obtained TPDES permit coverage for construction activities. CLCWA will implement review procedures from stormwater quality management plans contained in construction plans for compliance with TCEQ stormwater construction requirements.

Measurable Goals:

- Staff will review 100% of site plans for proper stormwater quality features and keep track of 100% of site plan reviews throughout the entire duration of the permit.

Evaluation:

- Record and report the number of plans reviewed for stormwater quality features by December 31, 2019, then annually.

5.3.2 BMP No. 2 – Educational Stormwater Flyers will be Included in Permitting Packages

CLCWA will distribute an educational stormwater flyer with the permit application to all Contractors and Site Owners/Operators who apply for a new water connection. The stormwater flyer discusses the hazards associated with illegal discharges and improper disposal of waste while also offering steps to reduce pollutants in stormwater runoff. CLCWA will keep track of the number of additional water connection applications and educational stormwater flyers distributed annually.

Measurable Goals:

- Include one educational stormwater flyer in each permitting package provided to contractor/owners who apply for water connections throughout the entire duration of the permit.

Evaluation:

- Record and report the number of water connection applications and educational stormwater flyers distributed by December 31, 2019, then annually.

5.3.3 BMP No. 3 – Construction Site Inspection Program

CLCWA will evaluate existing procedures for construction site inspections and enforcement with the goal of reducing stormwater runoff pollutants from construction sites to the MS4. CLCWA will perform all required construction site inspections in accordance with the developed procedures, and perform enforcement proceedings in accordance with policies. The program will require construction site operators to develop and maintain SWPPPs, 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.

Measurable Goals:

- Develop construction site inspection procedures and inspection forms for record keeping by December 31, 2021.
- Conduct weekly site inspections of 100% of active construction sites throughout the duration of the permit.

Evaluation:

- Document construction site inspection procedures and inspection forms by December 31, 2021.
- Report the number of construction site inspections performed and report on status of all non-compliance issues weekly. Record any non-compliance issues by December 31, 2019, then annually.

5.3.4 BMP No. 4 – Construction Site Waste Control Policy

CLCWA has existing policies and noncompliance sanctions for illicit discharge which includes control of construction site. Construction site operators are required to control and properly dispose of on-site waste materials such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste that may cause adverse impacts to water quality.

Measurable Goals:

- Implement the existing policy and continue enforcing proper management of waste at 100% of active construction sites.

Evaluation:

- Record the number of policy violations and compare with prior years to assess effectiveness by December 31, 2019, then annually.

5.3.5 BMP No. 5 – Construction Site Runoff Control Policy

CLCWA has existing policies and noncompliance sanctions for illicit discharge to require construction site operators to control stormwater runoff. Construction site operators will be required to install, maintain, and properly dispose of erosion and sediment controls during construction-related activities.

Measurable Goals:

- Implement the existing policy and continue enforcing proper management of site run off at 100% of active construction sites.

Evaluation:

- Record the number of policy violations and compare with prior years to assess effectiveness by December 31, 2019, then annually.

5.3.6 BMP No. 6 – Field Staff Training

CLCWA will continue to train applicable staff on stormwater construction site regulation and construction site inspections. CLCWA will provide annual field training to staff that have the potential to perform construction site inspections.

Measurable Goals:

- Provide at minimum one training to staff who will conduct construction site inspections by December 31, 2022, then annually.

Evaluation:

- Document the number of trainings provided on construction site stormwater runoff control and the names of staff participating by December 31, 2022, then annually.

TABLE 5-1: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL							
Best Management Practice	**Measurable Goals**	**Permit Years**					**Evaluation**
		1	**2**	**3**	**4**	**5**	
Review Construction Site Plans	Staff will review 100% of site plans for proper stormwater quality features and keep track of 100% of site plan reviews throughout the entire duration of the permit.						Record and report the number of plans reviewed for stormwater quality features by December 31, 2019, then annually.
Educational Stormwater Flyers with Permitting Packages	Include one educational stormwater flyer in each permitting package provided to contractor/owners who apply for water connections throughout the entire duration of the permit.						Record and report the number of water connection applications and educational stormwater flyers distributed by December 31, 2019, then annually.
Construction Site Inspection Program	Develop construction site inspection procedures and inspection forms for record keeping by December 31, 2021.						Document construction site inspection procedures and inspection forms by December 31, 2021.
	Conduct weekly site inspections of 100% active construction sites throughout the duration of the permit.						Report the number of construction site inspections performed and report on status of all non-compliance issues weekly. Record any non-compliance issues by December 31, 2019, then annually.
Construction Site Waste Control Policy	Implement the existing policy and continue enforcing proper management of waste at 100% of active construction sites.						Record the number of policy violations and compare with prior years to assess effectiveness by December 31, 2019, then annually.
Construction Site Runoff Control Policy	Implement the existing policy and continue enforcing proper management of site run off at 100% of active construction sites.						Record the number of policy violations and compare with prior years to assess effectiveness by December 31, 2019, then annually.
Field Staff Training	Provide at minimum one training to staff who will conduct construction site inspections by December 31, 2022, then annually.						Document the number of trainings provided on construction site stormwater runoff control and the names of staff participating by December 31, 2022, then annually.

Begins Permit Year 1	**Begins Permit Year 2**	**Begins Permit Year 3**	**Begins Permit Year 4**	**Begins Permit Year 5**

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 ON MCM4

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 policy 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 MCM4 STORMWATER PROGRAMS

CLCWA will attempt to lessen and manage the amount of contaminates and sediments in the stormwater runoff from new development/redevelopment activities at sites one acre and greater including sites that are part of a larger common plan of development.

6.3.1 <u>BMP No. 1 – Provide List of Appropriate BMPs for Site Operator/Owner</u>

CLCWA will distribute a list of appropriate structural and non-structural BMPs to the Site Owner/Operator of developments and redevelopments. Regular inspection and maintenance of stormwater structural BMPs is important to ensure proper functionality and to remove trash and organic debris. Non-structural BMP lists will also be distributed to home/business owners such as flyers discussing alternative chemicals/solvents to use in place of typical household chemicals that will help reduce the amount of contaminated runoff discharged into the storm sewer system. These flyers will also be available on the CLCWA website.

Measurable Goals:

- Staff to distribute one BMP list to 100% of project site owners/operator throughout the duration of the construction permit.

Evaluation:

- Record and report the number of BMP lists distributed by December 31, 2019, then annually.

6.3.2 BMP No. 2 – Post-Construction Final Inspection

The CLCWA will conduct a final inspection after completion of construction to check all implemented BMPs. If a detention pond was installed according to the CLCWA Drainage and Flood Control Policy for New Development and the Technical Guidance for CLCWA's Drainage and Flood Control Policy, CLCWA will conduct an inspection. The Site Owner/Operator will be notified if any deficiencies are noted in the post construction inspection. After the final inspection passes, it becomes the Site Owner/Operator's responsibility to inspect and maintain all BMPs on a long-term basis. Any Site Owner/Operator found to be non-compliant with the above listed BMPs will be subject to CLCWA's interpretation of the CLCWA Policy Manual Section ENF-20.

Measurable Goals:

- Conduct a post construction final inspection at the end of 100% of construction projects to ensure appropriate BMPs were constructed properly throughout the duration of the permit.

Evaluation:

- Record and report the number of post construction final inspections performed by December 31, 2019, then annually along with any enforcement action taken for noncompliance issues found.

6.3.3 BMP No. 3 – Site Owner/Operator Annual Pond Inspection

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 CLCWA. The CLCWA will supply each Site Owner/Operator with the appropriate inspection form.

Measurable Goals:

- Site owner/operator will inspect 100% of ponds by December 31, 2019, then annually.

Evaluation:

- Record and report the number of annual inspection forms received from Site Owners/Operators along with any noncompliance issues found by December 31, 2019, then annually.

6.3.4 BMP No. 4 – Post-Construction Policy

CLCWA has existing policies regarding control of illicit discharges including post-construction site stormwater runoff. The policy allows CLCWA to implement, and enforce a program to address stormwater runoff from new development and redevelopment of one or more acres that discharges into the MS4.

Measurable Goals:

- Implement existing policy and continue enforcing proper management of site stormwater runoff post construction at 100% of construction sites.

Evaluation:

- Record the number of policy violations and enforcement actions December 31, 2019, then annually.

6.3.5 BMP No. 5 – Post-Construction Development Review Procedures

CLCWA has existing post-construction stormwater quality design standards, if necessary. CLCWA will review submitted plans for stormwater quality features and requirements.

Measurable Goals:

- Review each set of submitted plans for compliance with standards and record 100% of plans reviewed by December 31, 2019, then annually.

Evaluation:

- Record and report the number of plans reviewed by December 31, 2019, then annually.

TABLE 6-1: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT							
Best Management Practice	**Measurable Goals**	**Permit Years**					**Evaluation**
		1	**2**	**3**	**4**	**5**	
Provide List of Appropriate BMPs for Site Owner/Operator	Staff to distribute one BMP list to100% of each project site owners/operator throughout the duration of the construction permit.						Record and report the number of BMP lists distributed by December 31, 2019, then annually.
Post-Construction Final Inspection	Conduct a post construction final inspection at the end of 100% of construction projects to ensure appropriate BMPs were constructed properly throughout the duration of the permit.						Record and report the number of post construction final inspections performed by December 31, 2019, then annually along with any enforcement action taken for noncompliance issues found.
Site Owner/Operator Annual Pond Inspection	Site owner/operator will inspect 100% of ponds by December 31, 2019, then annually.						Record and report the number of annual inspection forms received from Site Owners/Operators along with any noncompliance issues found by December 31, 2019, then annually.
Post-Construction Policy	Implement existing policy and continue enforcing proper management of site stormwater runoff post construction at 100% of construction sites.						Record the number of policy violations and enforcement actions by December 31, 2019, then annually.
Post-Construction Development Review Procedures	Review each set of submitted plans for compliance with standards and record 100% of plans reviewed by December 31, 2019, then annually.						Record and report the number of plans reviewed by December 31, 2019, then annually.

Begins Permit Year 1	**Begins Permit Year 2**	**Begins Permit Year 3**	**Begins Permit Year 4**	**Begins Permit Year 5**

7.0 MCM5: POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

7.1 OVERVIEW

CLCWA conducts 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 CLCWA will protect stormwater quality and continue to deliver public services at the present service levels.

7.2 TPDES PHASE II PERMIT REQUIREMENTS ON MCM5

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.

(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-own 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.

7.3 DISCUSSION OF MCM5 STORMWATER PROGRAMS

CLCWA will examine multiple internal operations to see if modifications can minimize or prevent stormwater pollution as part of CLCWA's good housekeeping efforts.

7.3.1 BMP No. 1 – Permittee-owned Facilities and Control Inventory

CLCWA will develop and maintain an inventory of all facilities and stormwater controls owned and operated by CLCWA 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.

Measurable Goals:

- Develop and maintain an inventory list of 100% of facilities and stormwater controls that CLCWA owns and operates within the regulated area of the small MS4 and updated each year by December 31, 2021, then annually.

Evaluation:

- Record and report any updates to the inventory list by December 31, 2021, then annually.

7.3.2 BMP No. 2 – Municipal Operations and Maintenance Activities Survey

CLCWA operates and maintains a variety of facilities and structural controls that have the potential to affect stormwater quality. The goal of the municipal operations and facility survey will be to assess CLCWA'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.

Measurable Goals:

- Assess 100% of permittee-owned operations and facilities by December 31, 2021, then annually.
- Assess 100% of existing stormwater BMPs and BMPs that can be implemented as deemed necessary in the municipal operations and facility survey and record which BMPs are implemented by December 31, 2019, then annually.

Evaluation:

- Record and report the number of municipal operations and facilities surveyed by December 31, 2021, then annually.
- Record the development and implementation of stormwater BMPs by December 31, 2019, then annually.

7.3.3 BMP No. 3 – Used Oil Disposal Center

CLCWA operates and maintains a disposal center to collect used oil and send it to a recycling facility. The recycling of used motor oil benefits the environment, the public health, and the economy. Oil improperly disposed of in landfills, ditches, waterways, or dumped on the ground or down storm sewers can migrate into surface and ground water. The CLCWA will continue to publish the disposal center's location on the CLCWA website, and staff will keep track of oil collected on an annual basis.

Measurable Goals:

- Post used oil drop off location on CLCWA website and collect oil and record the number of gallons collected monthly by December 31, 2019, then annually.

Evaluation:

- Record and report the amount of used motor oil collected by December 31, 2019, then annually.

7.3.4 BMP No. 4 – Employee Training

All CLCWA employees involved in municipal operations that are subject to housekeeping/BMP operations will be required to go through an annual training put on by CLCWA. Training materials and videos can be found on the EPA website under Stormwater Management.

Measurable Goals:

- Employees involved in pollution prevention and good housekeeping will take at least one type of training by December 31, 2022, then annually.

Evaluation:

- Document the number of trainings provided on pollution prevention and good housekeeping and the names and number of staff participating by December 31, 2022, then annually.

7.3.5 BMP No. 5 – Operation and Maintenance (O&M) Program

CLCWA will evaluate its existing Operations and Maintenance (O&M) Program and update any relevant policies and procedures, if necessary. CLCWA's existing program includes three areas: stormwater system maintenance, new construction and land disturbances, and vehicle and equipment maintenance and storage yards. CLCWA will look for possible improvements to existing CLCWA operations and maintenance practices in order to minimize or prevent stormwater pollutants from entering the storm sewer system and local waterways.

Measurable Goals:

- Inspect and evaluate 100% of current BMPs implemented regarding fleet vehicle maintenance washing and waste removal; staff will ensure BMPs are followed and CLCWA will keep track of the program annually and look for possible improvements by December 31, 2021, then annually.

Evaluation:

- Record BMPs implemented regarding fleet vehicle maintenance and waste removal by December 31, 2021, then annually.

7.3.6 BMP No. 6 – Safe Material Storage (and Disposal of Waste Material)

CLCWA will evaluate and update, if necessary, its existing policies and procedures regarding the storage and disposal of waste materials generated from the MS4 in accordance with Title 30 of the Texas Administrative Code Chapters 330 or 335, as applicable. CLCWA will develop a standard document summarizing the waste disposal procedures for waste collected because of municipal operations and maintenance activities.

Measurable Goals:

- Evaluate storage/waste disposal procedures by December 31, 2022, then annually.

Evaluation:

- Record the amount of waste collected and procedures for disposal by December 31, 2022, then annually.

7.3.7 BMP No. 7 – Structural Control Maintenance

CLCWA will implement a structural control and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system. The program will include a list of all maintenance activities, maintenance schedules, and long-term inspection procedures for structural controls used to reduce floatables and other pollutants.

Measurable Goals:

- Prepare list of BMPs for 100% of CLCWA's structural controls. Maintenance of the controls must be performed and documented to ensure they are implemented by December 31, 2021, then annually.

Evaluation:

- Record and report number of structural control maintenance operations performed by December 31, 2021, then annually.

7.3.8 BMP No. 8 – Contractor Requirements and Oversight

CLCWA will work with local contractors that have the potential to affect stormwater quality runoff. The CLCWA will also make sure that contractors that have this potential will adopt the Authority's stormwater quality practices. CLCWA is responsible for the majority of their landscaping and subcontracts minor housekeeping duties.

Measurable Goals:

- CLCWA will continue to conduct preconstruction meetings at the beginning of 100% of construction projects to provide instruction to contractors of CLCWA's stormwater policies.

Evaluation:

- Report number of preconstruction meetings conducted by December 31, 2019, then annually.

TABLE 7-1: POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS							
Best Management Practice	**Measurable Goals**	**Permit Years**					**Evaluation**
		1	**2**	**3**	**4**	**5**	
Permittee-owned Facilities and Control Inventory	Develop and maintain an inventory list of 100% of facilities and stormwater controls that CLCWA owns and operates within the regulated area of the small MS4 and updated each year by December 31, 2021, then update annually.						Record and report any updates to the inventory list by December 31, 2021, then update annually.
Municipal Operations and Maintenance Activities Survey	Assess 100% of permittee-owned operations and facilities by December 31, 2021, then annually.						Record and report the number of municipal operations and facilities surveyed by December 31, 2021, then annually.
	Assess 100% of existing stormwater BMPs and BMPs that can be implemented as deemed necessary in the municipal operations and facility survey and record which BMPs are implemented by December 31, 2019, then annually.						Record the development and implementation of stormwater BMPs by December 31, 2019, then annually.
Used Oil Disposal Center	Post used oil drop off location on CLCWA website and collect oil and record the number of gallons collected monthly by December 31, 2019, then annually.						Record and report the amount of used motor oil collected by December 31, 2019, then annually.
Employee Training	Employees involved in pollution prevention and good housekeeping will take at least one type of training by December 31, 2022, then annually.						Record and report the amount of waste collected and procedures for disposal by December 31, 2022, then annually.
Operation and Maintenance (O&M) Program	Evaluate inspect and 100% of current BMPs implemented regarding fleet vehicle maintenance washing and waste removal; staff will ensure BMPs are followed and CLCWA will keep track of the program annually and look for possible improvements by December 31, 2021, then annually.						Record BMPs implemented regarding fleet vehicle maintenance and waste removal by December 31, 2021, then annually.
Safe Material Storage (and Disposal of Waste Material)	Evaluate storage/waste disposal procedures by December 31, 2022, then annually.						Record the amount of waste collected and procedures for disposal by December 31, 2022, then annually.
Structural Control Maintenance	Prepare list of BMPs for 100% of CLCWA's structural controls. Maintenance of the controls must be performed and documented to ensure they are implemented by December 31, 2021, then annually.						Record and report number of structural control maintenance operations performed by December 31, 2021, then annually.
Contractor Oversight	CLCWA will continue to conduct preconstruction meetings at the beginning of 100% of construction projects to provide instruction to contractors about CLCWA's stormwater policies.						Report number of preconstruction meetings conducted by December 31, 2019, then annually.

Begins Permit Year 1	**Begins Permit Year 2**	**Begins Permit Year 3**	**Begins Permit Year 4**	**Begins Permit Year 5**

8.0 RECORDKEEPING AND REPORTING

As detailed in TPDES General Permit TXR040000, CLCWA must document and report the implementation of all stormwater BMPs throughout the course of the permit period, and the TCEQ will require that CLCWA 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, CLCWA must document the development and implementation of all stormwater programs throughout the permit period, and as referenced in the TPDES general permit, CLCWA 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.

Individuals may also contact CLCWA 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 CLCWA 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 Team Leader; MC – 148
P.O. Box 13087
Austin, Texas 78711-3087

and

Texas Commission on Environmental Quality
Houston – Region 12 Office

Water Program Manager
5425 Polk Ave., Suite 300
Houston, Texas 77002

9.0 REFERENCES

Government Printing Office (GPO). "Title 40, Part 122 of the Code of Federal Regulations (40 CFR 122)." September 26, 2007. GPO Access. September 28, 2007. http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&sid=cd5a2e8a88a287e0c3e997c992a380d6&tpl=/ecfrbrowse/Title40/40cfr122_main_02.tpl

Texas Commission on Environmental Quality (TCEQ). "Armand Bayou Watershed: A TMDL Project to Protect Recreational Uses" Austin, Texas. April 17, 2014.

Texas Commission on Environmental Quality (TCEQ). "Houston-Galveston Regional Plan: I-Plan and TMDLs" Austin, Texas. March 13, 2014.

Texas Commission on Environmental Quality (TCEQ). "Texas Pollutant Discharge Elimination System General Permit No. TXR040000. General Permit to Discharge Under the Texas Pollutant Discharge Elimination System." Austin, Texas. January 24, 2019.

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 policies, 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.

Clean Water Act (CWA) - The Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et. seq.

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 Country – 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 policies 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 sway 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

BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, TXR150000
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
FR	Federal Register
IP	Implementation Procedures
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MSGP	Multi-Sector General Permit, TXR050000
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Change
NOD	Notice of Deficiency
NOI	Notice of Intent
NOT	Notice of Termination (to terminate coverage under a general permit)
NPDES	National Pollutant Discharge Elimination System
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination System

TWC	Texas Water Code