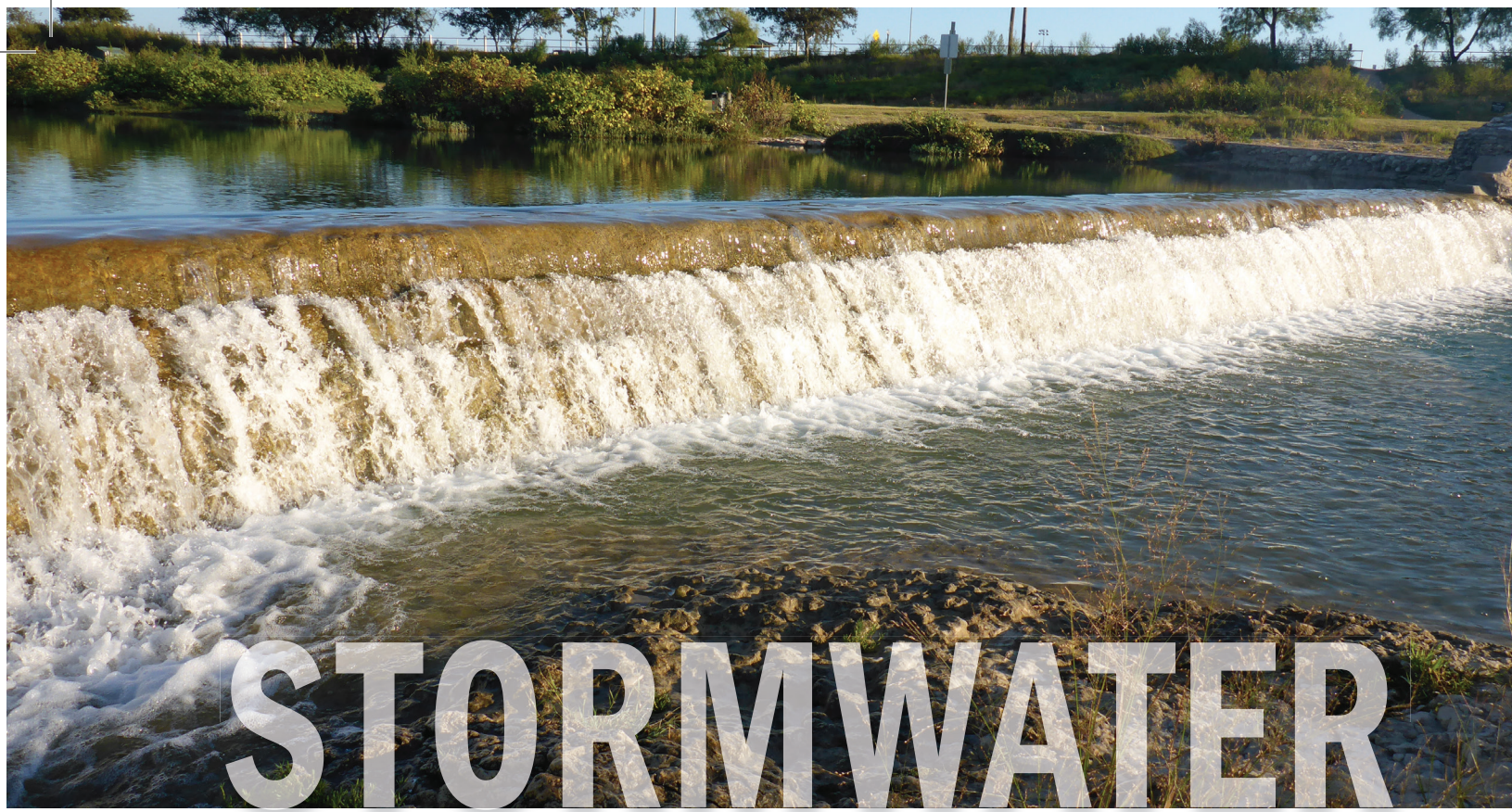

STORMWATER
QUALITY MANAGEMENT

FREESE AND NICHOLS

Project #: HAS18732

HAYS COUNTY

Stormwater Management Program

TCEQ Small MS4 Permit No. TXR040544

Permit Term: Jan. 24, 2019 - Jan. 23, 2024

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1.0 STORMWATER MANAGEMENT EXECUTIVE SUMMARY

Hays County (County) is subject to the requirements of the Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000, issued January 24, 2019, which sets the requirements and conditions for stormwater discharges from a small municipal separate storm sewer system (MS4) to surface waters in the state. The County previously developed and implemented a stormwater management program (SWMP) to comply with the original TPDES Small MS4 General Permit issued in August 2007 since it was located within the San Marcos-Buda-Kyle, Texas Urbanized Area (UA), as defined by the 2000 U.S. Census. This document describes the County's SWMP to protect water quality from stormwater runoff throughout the County and serves as the County's documentation of intended compliance with the current TPDES Small MS4 General Permit. Based on the 2010 U.S. Census, the County has a population of 25,661. As a result, the County is classified as a level 2 small MS4 under the renewed TCEQ Small MS4 General Permit. Four levels of small MS4 are identified in the Small MS4 General Permit, with increasing responsibilities at each level.

This program documents 15 best management practices (BMPs) that the County already has implemented or will implement over the next five years to meet the minimum requirements of the Small MS4 General Permit. The County has identified these BMPs as being cost-effective approaches to protect water quality, recognizing the importance of protecting our natural and financial resources. A five-year implementation, maintenance, and documentation approach is contained within this SWMP.

1.1 Background

Stormwater affects the quality of water in urban lakes, rivers, neighborhood creeks, and storm drains. Pollutants (e.g., pesticides, oil, detergents, and bacteria) present on urban land and impermeable surfaces (e.g., streets and parking lots) can be transported by stormwater runoff into stormwater drainage systems. These drainage systems, both natural and man-made, convey the stormwater runoff away from urban areas and into nearby water bodies.

In order to protect water quality, it is necessary to identify the types and sources of pollution and implement plans to protect the County's water resources. Historically, waters have been protected through state and federal regulation of "point sources" or end-of-pipe sources of pollution. Over time, it has become more evident that overland runoff sources of pollution, such as urban stormwater runoff, can create serious problems in waterways and impact the community's quality of life.

1.2 Stormwater Regulations

Under the requirements of the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) is required to protect the water quality for natural waters throughout the country. The EPA established the National Pollutant Discharge Elimination System (NPDES) program to identify sources of water pollution and work to reduce or eliminate the pollutants from waters of the U.S. The EPA has delegated responsibility for the NPDES program in Texas to the TCEQ, who administers the TPDES. In addition to issuing discharge permits to traditional "point sources," such as municipal wastewater treatment plants and industrial wastewater discharges, the TCEQ is also responsible for minimizing pollution from other sources, such as stormwater runoff from construction sites, industrial facilities, and some stormwater drainage systems. For construction sites and industrial facilities, the TCEQ issued requirements for minimizing stormwater pollution within general permits specific to those industries, which typically require development and implementation of site-specific stormwater pollution prevention plans.

1.2.1 Small Municipal Separate Storm Sewer System (MS4) General Permit

In most areas of the country, storm drainage systems are separate from sanitary sewer systems and are thereby classified as "separate storm sewer systems." Separate storm sewer systems include ditches, curbs, gutters, storm sewers, and similar means of collecting or conveying runoff that do not connect with a wastewater collection system or treatment facility before discharging into water bodies. A "municipal separate storm sewer system" (or MS4) is a system owned or operated by a public agency like a city, flood control district, county, or state agency.

In 1999, the EPA issued NPDES regulations to protect stormwater quality in small MS4s (known as Phase II MS4s) within UAs. The TCEQ, who was delegated the responsibility of implementing the stormwater quality regulations, finalized the initial Small MS4 General Permit (officially named TPDES General Permit No. TXR040000) on August 13, 2007. This TPDES permit, commonly called the "Small MS4 General Permit," has a five-year term but has been extended administratively each of the first two permit terms while TCEQ negotiated with EPA over the renewed permit conditions. The renewed Small MS4 General Permit became effective on January 24, 2019 and has a five-year permit term. Hays County is one of several hundred cities, counties, and other public entities subject to TCEQ's Small MS4 General Permit.

1.2.2 Stormwater General Permit for Construction Activity

The TCEQ regulates stormwater discharges from most construction activity through TPDES General Permit No. TXR150000. For construction sites disturbing one acre or more, a stormwater pollution prevention plan (SWPPP) must be developed and site controls must be installed, such as silt fence, inlet protection, and a stabilized construction site entrance, to minimize the discharge of sediment and other pollutants from the construction site. When construction is complete and the site is re-vegetated or otherwise stabilized, the control measures may be removed.

Small MS4s do not have direct responsibility to inspect and enforce construction sites for compliance with the requirements of the TCEQ Construction General Permit (CGP), but requirements do exist for small MS4s to require proper erosion control measures to be installed and maintained on construction sites, including the implementation of an ordinance or other regulatory mechanism. Many small MS4s reference the TCEQ CGP in their ordinances or regulations for compliance consistency, and the 2019 Small MS4 General Permit provides a specific allowance for regulated MS4s to reference the TCEQ CGP to demonstrate their own compliance with construction site related oversight requirements.

1.2.3 Stormwater Multi-Sector General Permit for Industrial Activity

The TCEQ regulates stormwater discharges from developed sites in certain industrial classifications through TPDES General Permit No. TXR050000. Sites operating in certain identified industrial sectors are required to develop, implement, and maintain a SWPPP for operations at the facility. These industrial sectors have been identified by the EPA and TCEQ as high potential sources of significant stormwater pollutants, and as a result, the implementation of BMPs are required to protect water quality from stormwater runoff pollution. Types of BMPs for industrial facilities range from covered storage of materials to staff training. Ongoing stormwater monitoring of wet weather events is required to observe and test for stormwater pollution.

Cities that are small MS4s often have their own facilities subject to the industrial stormwater permit. Municipal landfills, wastewater treatment plants, and municipal airports are common city facilities that must comply with the industrial stormwater permit. Each of these facilities is required to be documented within the small MS4's SWMP. Level 4 MS4s (those with a 2010 U.S. Census population of 100,000 or greater) are also required to develop and implement a program to inspect and enforce stormwater quality runoff protection from industrial facilities that discharge to the MS4. This would be expected to include facilities subject to the industrial stormwater permit, although it also may include additional facilities determined by the MS4 to have high potential for stormwater pollution.

1.3 Permit Applicability and Coverage

The County has updated this SWMP to comply with the requirements of the renewed Small MS4 General Permit. This permit applies to operators of publicly-owned storm sewer systems in UAs in Texas and authorizes the County to discharge stormwater runoff from their stormwater drainage system. The U.S. Census Bureau defines the UAs based on a population density of 1,000 people per square mile and a total population of at least 50,000, irrespective of political boundaries. UAs represent densely developed areas and encompass residential, commercial, and other non-residential urban land uses. The County is located within the San Marcos-Buda-Kyle, Texas U.S. Census UA as shown in Figure 1.

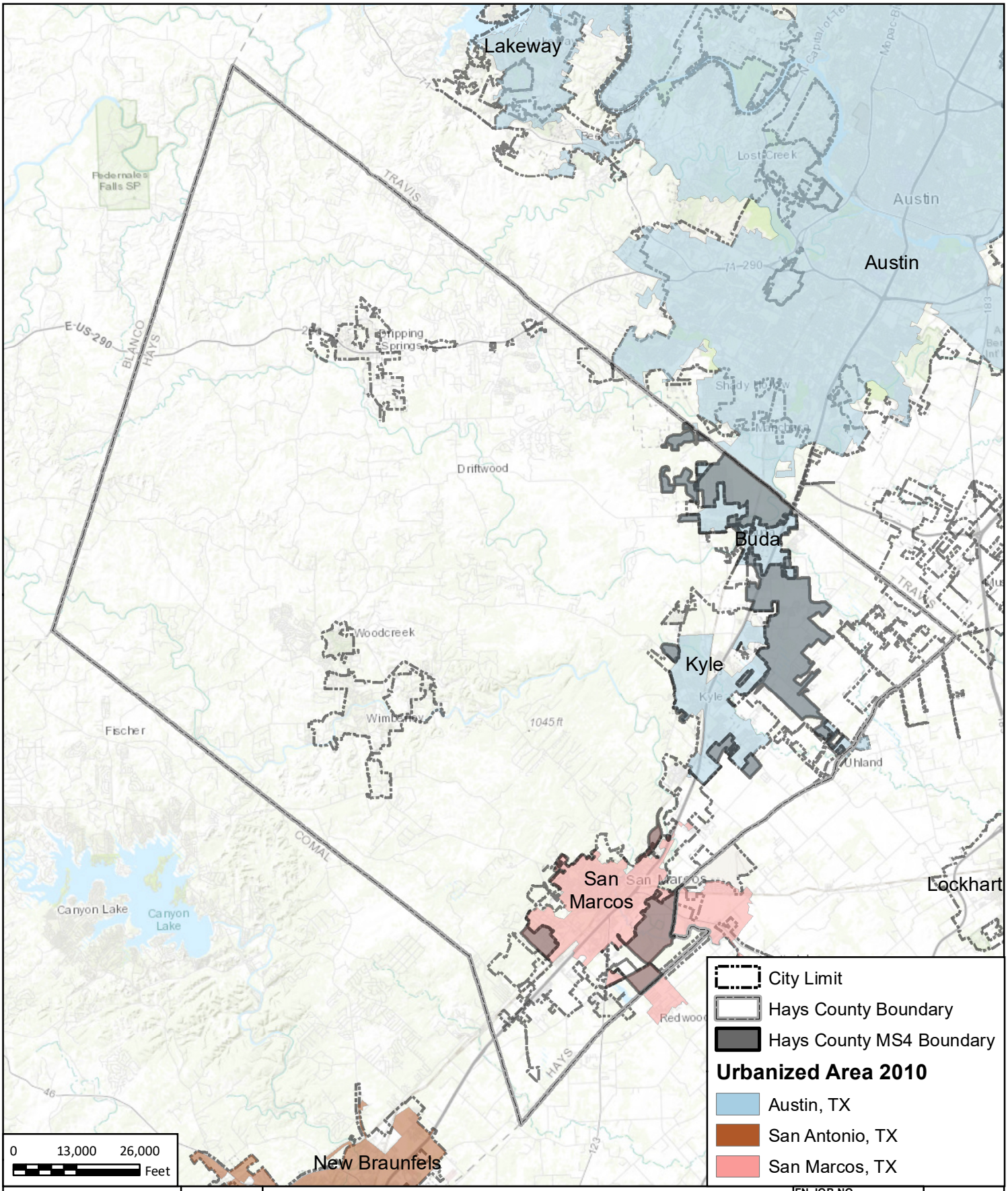
The SWMP encompasses the County's MS4 area to the city limit boundaries. The SWMP includes BMPs that will be implemented by the County to reduce stormwater pollution to the maximum extent practicable (MEP), as regulations require. This document serves as the County's SWMP.

Once the Notice of Intent (NOI) and SWMP have been submitted and further instruction from the TCEQ's Office of Chief Clerk has been given, the County will publish notice of the executive director's preliminary decision on the NOI and SWMP. The County will publish a notice at least once in a newspaper of general circulation in the municipality or county where the small MS4 is located.

1.4 Hays County

Hays County is located in South Central Texas. It is located southwest of the City of Austin and northeast of the City of New Braunfels. The County UA encompasses 24.81 square miles, with a population density of 1,034.3 people per square mile. According to 2010 U.S. Census data, the population in the Counties' UA was 25,661. In the ten-year period from 2000 to 2010, the County experienced a 61% population growth.

Hays County is located within the Edwards Plateau, Texas Blackland Prairies Ecoregion, specifically Balcones Canyonlands and Northern Blackland Prairie. The Balcones Canyonlands Ecoregion is characterized by springs, streams, and rivers working above and below ground to create canyons, sinkholes, and caverns and has clay and limestone soils. The Northern Blackland Prairie Ecoregion is characterized by fine textured, clayey soils, and predominantly prairie natural vegetation. Both ecoregions are characterized by a humid, subtropical climate with hot summers and mild winters. The average maximum temperature in Hays County occurs in July (96 degrees Fahrenheit [°F]); the average minimum temperature occurs in January (40.0°F) with an average annual temperature of 68°F. Rainfall is the predominant type of precipitation. It is distributed throughout the year and reaches a slight peak in spring. Prevailing winds in the area are from the south.



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Hays County

2010 Urbanized Area

FN JOB NO	HAS18732
FILE NAME	SWMP_UA_Mapbook.mxd
DATE	7/9/2019
SCALE	1:320,000
DESIGNED	BH
DRAFTED	02271

FIGURE 1

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2.0 WATER QUALITY

2.1 Overview of Water Quality Assessments in Texas

The TCEQ is charged through federal mandate with protecting the quality of waters within Texas. The TCEQ's approach to this mandate includes measuring water quality at locations across the state, determining if the quality in streams, lakes, and creeks is acceptable, and implementing plans to clean up water bodies that are impacted.

The TCEQ Texas Surface Water Quality Standards are rules designed to establish goals for water quality throughout the state and provide a basis for regulatory programs to attain those goals. Water quality standards serve to signal a situation where water quality may be inadequate to meet the use or uses of a particular water body. Five general categories for water use, known as "designated uses", are defined in Texas:

- General
- Aquatic life use
- Recreation
- Public water supply
- Fish consumption

Major surface water bodies in the state have been classified with site-specific designated uses in Title 30, Chapter 307 of the Texas Administrative Code (30 TAC §307), but many smaller water bodies have not been classified and do not have site-specific designated uses. All unclassified surface water bodies without site-specific designated uses are protected by the "general criteria" defined in 30 TAC §307.4.

The TCEQ divided water bodies into "segments" to provide the basic unit for assigning site-specific standards and for applying water quality management programs. Segments can be further divided into "assessment units." All classified water bodies and some smaller unclassified water bodies have been assigned a unique segment identification code (TCEQ Segment ID). However, many water bodies in the state have not been assigned a TCEQ Segment ID.

Because it would be impractical to test every water body for all possible pollutants, assessments of water quality in Texas are performed by evaluating indicators of water quality. Indicators are an indirect measure of the health or quality of a particular part of the aquatic system. Some indicators, such as the health of fish communities, are tied to specific designated uses, while others, such as nutrients, are not. Some of the most

common indicators used by TCEQ to determine the quality of water bodies include bacteria, dissolved oxygen, dissolved solids, metals, and organic substances.

If the indicator data published in the 2014 Texas Integrated Report of Surface Water Quality (2014 Texas Integrated Report) reveal that water quality is inadequate to meet the goals of the water body's designated use, the TCEQ identifies the water body as an impaired water in a section of the 2014 Texas Integrated Report called the 303(d) list. The 303(d) list is required by the federal CWA and is submitted to EPA for approval. Water bodies added to the list are subject to a Total Maximum Daily Load (TMDL) assessment, which is an assessment of the root cause of poor water quality. An Implementation Plan (or "I-Plan") developed by local stakeholders to remediate pollution sources usually accompanies the TMDL.

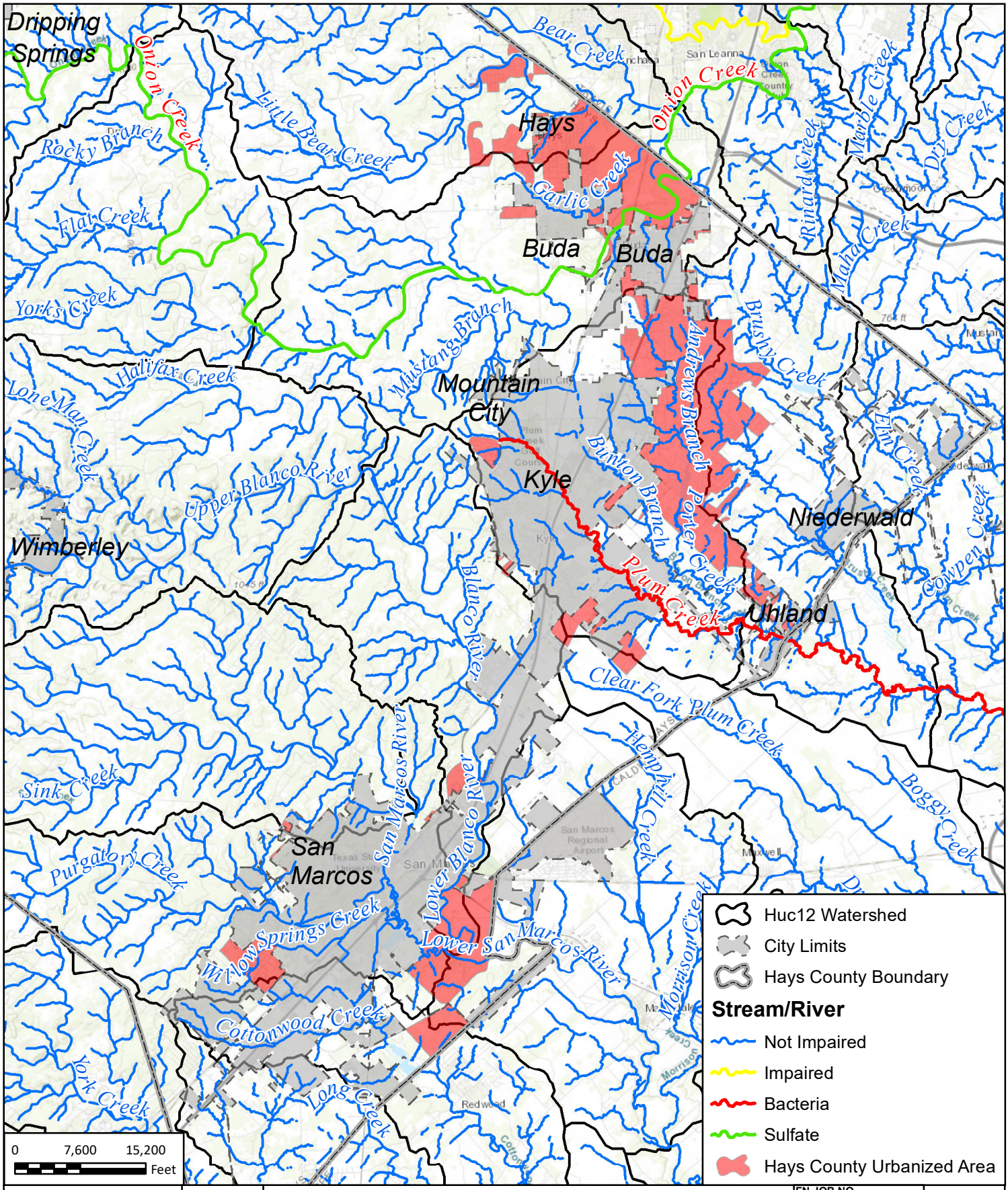
For the purpose of this permit, a water body is impaired if it has been identified, pursuant to the latest TCEQ and EPA approved CWA 303(d) list or the 2014 Texas Integrated Report for CWA Sections 305(b) and 303(d). Additionally, water bodies with concerns for non-attainment or screening levels are identified within the 2014 Texas Integrated Report and can be useful to evaluate potential sources of impairments.

2.2 Water Quality of Hays County

The Small MS4 General Permit requires identification of the classified segments that first receive the County's stormwater discharges, either directly or indirectly. For the purposes of this evaluation, the MS4 is considered to be directly discharging to a receiving water if the waterbody is the first water of the U.S. receiving stormwater discharges from a regulated MS4 outfall. Indirect stormwater discharges include all stormwater flows outside of the MS4 boundary and segments downstream of the direct receiving water. Stormwater discharges from the County eventually reach the following classified segments:

- Lower San Marcos River (Segment 1808)
- Plum Creek (Segment 1810)
- Onion Creek (Segment 1427)

The classified segments listed above, as well as unclassified water bodies that receive stormwater discharges before reaching the classified segments, are displayed within Figure 2 and summarized below in Table 1. If the MS4 is discharging directly to an impaired segment or is discharging indirectly to a segment which is part of a watershed subject to TMDL requirements, the SWMP is subject additional permit requirements outlined in Section 3.2 and 4.4.



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Hays County

Receiving Waters and Impairments

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FIGURE 2

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Table 1. Water Quality Summary for Receiving Waters

Classified Water Body Watershed	Receiving Water Body Name	Receives Stormwater Directly or Indirectly	303(d) or 305(b) List	TMDL or I-Plan	Listed Water Quality Concerns
Lower San Marcos River (Assessment Unit 1808_04)	Unnamed Tributaries	Directly	No	No	None
	Willow Springs Creek	Directly	No	No	None
	Upper San Marcos River (Segment 1814)	Directly	No	No	None
	Lower San Marcos River (Segment 1808)	Directly	No	No	None
	Lower Blanco River (Segment 1809)	Directly	No	No	None
	Cottonwood Creek	Indirectly	No	No	None
	York Creek	Indirectly	No	No	None
Plum Creek (Assessment Units 1810 _02 & 03)	Unnamed Tributaries	Directly	No	No	None
	Andrews Branch	Indirectly	No	No	None
	Bunton Branch	Indirectly	No	No	None
	Clear Fork Plum Creek	Indirectly	No	No	None
	Porter Creek	Indirectly	No	No	None
	Richmond Branch	Indirectly	No	No	None
	Brushy Creek	Directly	No	No	None
	Plum Creek (Segment 1810)	Directly	Yes (Bacteria)	No	None
Onion Creek (Assessment Units 1427_02 & 03)	Unnamed Tributaries	Directly	No	No	None
	Garlic Creek	Indirectly	No	No	None
	Bear Creek	Indirectly	No	No	None
	Little Bear Creek	Directly	No	No	None
	Onion Creek (Segment 1427)	Directly	Yes (Sulfate)	No	None

Source: TCEQ 2014 Texas Integrated Report of Surface Water Quality

Lower San Marcos River (Assessment Unit 1808_04)

Lower San Marcos River is located south of the City of San Marcos and stormwater from the MS4 discharges directly into Assessment Unit 1808_04 and by way of the Upper San Marcos River (Segment 1814) and the Lower Blanco River (Segment 1809). The Lower San Marcos River has designated uses of Aquatic Life, Recreation, General, and Public Water Supply. It is not listed in the 2014 Texas Integrated Report Index of Water Quality Impairments and was assessed in the 2014 Texas Integrated Report. It does not have TMDL requirements and no pollutants of concern are listed.

Cottonwood Creek is located within the County's UA and receives stormwater discharges indirectly from the MS4 by way of unnamed tributaries. It is an unclassified stream without a TCEQ Segment ID and was not assessed in the 2014 Texas Integrated Report. Cottonwood Creek flows southeast to the Lower San Marcos River.

Willow Springs Creek is located within the County's UA and receives stormwater discharges directly from the MS4. It is an unclassified stream without a TCEQ Segment ID and was not assessed in the 2014 Texas Integrated Report. Willow Springs Creek flows to the Lower San Marcos River by way of the Upper San Marcos River.

York Creek is located within the County's UA and receives stormwater discharges indirectly from the MS4 by way of unnamed tributaries. It is an unclassified stream without a TCEQ Segment ID and was not assessed in the 2014 Texas Integrated Report. York Creek flows southeast to the Lower San Marcos River.

Plum Creek (Assessment Units 1810_02 and 1810_03)

Plum Creek is located in and southeast of the City of Kyle and stormwater from the County MS4 discharges directly into Assessment Unit 1810_03 and indirectly to Assessment Unit 1810_02 by way of unnamed tributaries. Plum Creek has designated uses of Aquatic Life, Recreation, General, and Aquifer Protection Water Supply. It is listed in the 2014 Texas Integrated Report Index of Water Quality Impairments for a bacteria impairment and was assessed in the 2014 Texas Integrated Report. However, at this time, it does not require the development of a TMDL due to other control requirements that are reasonably expected to result in the attainment of all standards. Total phosphorus, nitrate, and impaired habitat are the primary pollutants of concern.

Andrews Branch, Bunton Branch, Porter Creek, Richmond Branch, Brushy Creek, and unnamed tributaries are located east of the City of Kyle and within the County's UA and receive stormwater discharges directly from the MS4. They are unclassified streams without a TCEQ Segment ID and were not

assessed in the 2014 Texas Integrated Report. Andrews Branch, Bunton Branch, Porter Creek, Richmond Branch, Brushy Creek, and unnamed tributaries flow to Plum Creek, which flows southeast to the Lower San Marcos River.

Clear Fork Plum Creek is located south of the City of Kyle and the County MS4 discharges stormwater indirectly into Assessment Unit 1810_02 by way of unnamed tributaries. It is an unclassified stream without a TCEQ Segment ID and was not assessed in the 2014 Texas Integrated Report. Clear Fork Plum Creek flows southeast to Plum Creek.

Onion Creek (Assessment Units 1427_02 and 1427_03)

Onion Creek is located north of the City of Buda within the County's UA and the County MS4 discharges directly into Assessment Units 1427_02 and 1427_03. Onion Creek receives flow from Bear Creek (Segment 1427C), Garlic Creek, and unnamed tributaries. Onion Creek has designated uses of Aquatic Life, Recreation, General, and Public/Aquifer Protection Water Supply. It is listed in the 2014 Texas Integrated Report Index of Water Quality Impairments as impaired by sulfate; however, it does not have TMDL requirements. Additional data or information will be collected and/or evaluated for one or more parameters before a management strategy is selected. Onion Creek was assessed in the 2014 Texas Integrated Report, but no pollutant of concern is listed.

Bear Creek (Segment 1427C) is located north of the City of Buda within the County's UA and the County MS4 discharges directly into Assessment Units 1427_02 and 1427_03. Bear Creek receives flow by way of unnamed tributaries. Designated uses have not been defined for Bear Creek. It is not listed on the in the 2014 Texas Integrated Report Index of Water Quality Impairments and does not have TMDL requirements. There is no listed pollutant of concern.

2.3 Edwards Aquifer Contributing Zone

Hays County is partially located within the Edwards Aquifer Contributing Zone, and must meet all applicable requirements of, and operate according to, 30 TAC §213 (Edwards Aquifer Rule). As such, Hays County's development criteria addresses the Edwards Aquifer Rule requirements, including submittal of Water Pollution Abatement Plans (WPAP) for regulated activities.

2.4 Considerations for Threatened and Endangered Aquatic Species

Aquatic federally listed threatened and endangered species were considered in the preparation of the SWMP. As of May 2019, the following federally listed threatened and endangered aquatic species are known to potentially occur near Hays County's UAs:

Amphibians:	
Austin blind salamander (*Eurycea waterlooensis*)	Endangered
Barton Springs salamander (*Eurycea sosorum*)	Endangered
Jollyville Plateau salamander (*Eurycea tonkawae*)	Threatened
San Marcos salamander (*Eurycea nana*)	Threatened
Texas blind salamander (*Typhlomolge rathbuni*)	Endangered
Fishes:	
Fountain Darter (*Etheostoma fonticola*)	Endangered
San Marcos Gambusia (*Gambusia georgei*)	Endangered
Insects:	
Comal Springs dryopid beetle (*Stygoparnus comalensis*)	Endangered
Comal Springs riffle beetle (*Heterelmis comalensis*)	Endangered
Crustaceans:	
Peck's cave amphipod (*Stygobromus pecki*)	Endangered
Flowering plants:	
Texas wild-rice (*Zizania texana*)	Endangered

All the listed species are threatened largely by destruction of habitat and overuse of groundwater from the Edwards Aquifer. The numerous BMPs to be implemented as part of this SWMP were selected to protect and improve stormwater quality. These include actions that reduce soil erosion, manage urban runoff, and increase infiltration and aquifer recharge. As such, no adverse impacts to these species or their habitats are expected due to regulated stormwater discharges from Hays County's MS4.

3.1 Minimum Control Measure Summary

Various BMPs must be developed for the minimum control measures (MCMs) that are expected to minimize or eliminate stormwater pollutants discharging into the storm sewer system and provide water quality protection for receiving water bodies. Five MCMs are required for all MS4s and a sixth MCM is required only for Level 4 MS4s. An optional seventh MCM to address municipal construction activities through their SWMP is available for use by the County but has not been selected for inclusion in this SWMP. Specific requirements according to small MS4 level have been developed by the TCEQ for each MCM, and the general description of the MCMs are provided below. The County is required to conduct an annual review and make updates to the SWMP, as necessary, and record changes in an annual report. The specific requirements for each MCM are provided in Appendix B. A general description of each MCM is provided below:

1. Public Education, Outreach, and Involvement – Assess and modify existing elements and develop and implement new elements as necessary for a public education and outreach program regarding stormwater quality issues and to reduce the discharge of pollutants from the MS4 to the MEP. The program involves the target audience including public employees, businesses, and the general public with implementation of the program. In summary, this MCM requires the following program goals for all MS4 levels:

    a. Determine water quality issues based on high priority community-wide issues within the MS4

    b. Educate public employees, businesses, and the general public on identification of water quality issues

    c. Select or develop appropriate educational material

    d. Make educational information available to target audiences including public employees, businesses, and the general public through cost effective and practical methods

    e. Develop and maintain procedures for distribution of educational materials

    f. Post SMWP and annual reports on County's public website within 30 days of the TCEQ approval date and publish NOC approval as necessary

    g. Provide opportunity for public input and participation

2. Illicit Discharge Detection and Elimination (IDDE) – Assess and modify existing elements and develop and implement new elements as necessary for a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program involves the creation of County regulations that prohibit non-stormwater discharges to the MS4 (except those outlined as allowable non-stormwater discharges in the current Phase II MS4 permit) and provides the County the authority to perform inspections and enforce the requirements through sanctions or other enforcement mechanisms for continued reduction of pollutants in MS4 discharge to the MEP. If necessary, new elements will be implemented by the end of the permit term. In summary, this MCM requires the following program goals for all MS4 levels:

    a. Develop and maintain procedures to update the storm system map
    b. Develop and maintain an up-to-date map of the storm system including all outfalls and surface waters of the U.S.
    c. Educate and train MS4 field staff
    d. Solicit public reporting of observed illicit discharges
    e. Implement procedures to trace the source of an illicit discharge
    f. Implement procedures to remove the source of the illicit discharge
    g. Implement procedures to investigate and inspect the illicit discharge

    For Level 2 through 4 MS4 programs, the following additional program goals are required by this MCM:

    a. Implement procedures to prevent and correct leaking on-site sewage disposal systems (septic systems)

3. Construction Site Stormwater Runoff Control – Assess and modify existing elements and develop and implement new elements as necessary for a program to continue reducing illicit discharges from small and large construction activities. Develop and maintain a regulatory mechanism that allows for County enforcement of the receipt and collection of information, such as stormwater plans and reports, provides the County with the ability to enter and inspect private property related to stormwater discharges to the small MS4 and prohibits the discharge of wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control; wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials; fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; soaps or solvents used in vehicle and equipment

washing; and discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs**.** In summary, this MCM requires the following program goals for all MS4 levels:

a. Implement procedures and require construction operators to implement and maintain appropriate erosion and sediment control BMPs, including erosion and sediment controls and soil stabilization BMPs

b. As an alternative to the above goal, implement procedures and require construction operators to develop and implement a SWPPP in accordance with the TPDES CGP TXR150000

c. Enforce standards to minimize the discharge of pollutants from construction sites

d. Implement and enforce procedures to review construction plans

e. Implement and enforce procedures to inspect and enforce construction site stormwater management

f. Implement or maintain procedures to receive, respond, and track information from the public

g. Conduct training for MS4 field staff and reviewers

4. <u>Post Construction Stormwater Management in New Development and Redevelopment</u> – Assess and modify existing elements and develop and implement new elements as necessary for a program to control stormwater discharges from new development and redeveloped sites that disturb one acre or more to reduce the discharge of pollutants into the MS4 to the MEP. Develop and maintain regulatory mechanism that allows for County enforcement of post-construction controls and the receipt and collection of information, such as stormwater plans and reports, and provides the County with the ability to enter and inspect private property related to stormwater discharges to the small MS4. In summary, this MCM requires the following program goals for all MS4 levels:

a. Implement and enforce requirements for newly developed and redeveloped sites over an acre to control stormwater discharges

b. Enforce long-term operation and maintenance of structural stormwater controls in accordance with County regulations

c. Maintain records of enforcement actions in accordance with County regulations

d. Document operation and maintenance at owner or operator site in accordance with County regulations

5. Pollution Prevention and Good Housekeeping for Municipal Operations – Assess and modify existing elements and develop and implement new elements as necessary for an operation and maintenance program for municipal operations to continue the reduction of discharge of pollutants from the MS4 to the MEP. In summary, this MCM requires the following program goals for all MS4 levels:

    a. Develop and maintain an inventory, (including permits, registrations, and authorizations), of MS4 facilities and stormwater controls owned or operated by the MS4, which must include (but is not limited to) the following, as applicable:
        - Composting facilities;
        - Equipment storage and maintenance facilities;
        - Fuel storage facilities;
        - Hazardous waste disposal facilities;
        - Hazardous waste handling and transfer facilities;
        - Incinerators;
        - Landfills;
        - Materials storage yards;
        - Pesticide storage facilities;
        - Buildings, including schools, libraries, police stations, fire stations, and office buildings;
        - Parking lots;
        - Golf courses;
        - Swimming pools;
        - Public works yards;
        - Recycling facilities;
        - Salt storage facilities;
        - Solid waste handling and transfer facilities;
        - Street repair and maintenance sites;
        - Vehicle storage and maintenance yards; and
        - Structural stormwater controls.

    b. Require MS4 staff training on pollution prevention and good housekeeping practices

    c. Properly dispose of waste material in accordance with 30 TAC Chapter 330 or 335, as applicable

    d. Require contract language requiring compliance with County stormwater pollution prevention measures, good housekeeping practices, and facility specific stormwater management operating procedures

e. Implement and follow written procedures for maintenance activities and municipal operations

f. Identify pollutants of concern that could be discharged from municipal operations

g. Develop, implement, and inspect pollution prevention measures to reduce the discharge of pollutants in stormwater

h. Implement and follow written procedures for maintenance activities on structural controls that define frequency of inspections and provide guidance for inspectors

6. Industrial Stormwater Sources (**Level 4 only, Not applicable to Hays County**) – Assess and modify existing elements, and develop and implement new elements, as necessary, for a program to identify and control pollutants from industrial or commercial facilities.

7. Authorization for Construction Activities where the Small MS4 is the Site Operator (**Optional**) – Develop program for construction activities as an alternative to TPDES CGP TXR150000 where the County meets the definition of construction site operator. This optional MCM requires development of a detailed plan addressing how the County's construction activities will meet construction stormwater permit requirements. The County has elected not to implement this MCM for this permit term.

3.2 Impaired Waters and Total Maximum Daily Load Summary

In addition to the MCM requirements, the renewed permit describes required actions if a regulated MS4 discharges a pollutant of concern to an impaired water body or discharges into a water body that is part of a watershed with an approved TMDL, regardless if the water body itself is impaired. For the administration of this permit, a watershed boundary is considered as it is defined by the TMDL requirements and/or I-Plan. Not all regulated MS4s discharge into an impaired water body, and thus these requirements do not apply to all regulated entities. If a regulated MS4 discharges a pollutant of concern to an impaired water body with an established TMDL, the regulated MS4 must be consistent with the approved TMDL in order to be eligible for coverage by the Small MS4 General Permit. The TMDL process includes an intensive assessment of the root cause of poor water quality, a determination of the maximum pollutant loading allowable while still meeting water quality use standards, and development of a plan by local stakeholders to remediate pollution sources.

For MS4s discharging a known pollutant of concern into impaired water bodies, their SWMP must include information on the implementation of "targeted controls", which are activities, practices, or structural controls that focus on reducing the water quality impact of the specific pollutant. For each targeted control, a measurable goal, implementation schedule, and "benchmark" must be established. A benchmark is a

quantifiable goal designed to assist in determining if the targeted controls are effective in addressing the pollutant. The exceedance of a benchmark does not indicate a permit violation; it does, however, help in the evaluation of the progress towards reducing pollutant discharges.

Section 4.4 addresses the County's specific actions to control the discharge of pollutants of concern to impaired waters and evaluate the progress of controlling those pollutants.

3.3 Program Development Summary

Existing County programs and activities that protect the County's stormwater quality were identified and are included in the SWMP as applicable. These programs and activities will be supplemented with several new BMPs to provide additional protection of stormwater quality as required by the Small MS4 General Permit.

An implementation schedule and measurable goals to track the implementation progress have been developed for each of the BMPs in this SWMP. Each BMP was selected based on the projected effectiveness in protecting stormwater quality and its ability to aid in compliance with permit conditions.

The implementation schedule and measurable goals were selected so new stormwater program activities will be steadily phased in over the permit term. Hays County will review the implementation progress each year and modify the SWMP as necessary.

The BMP Activities and Documentation List (Appendix A) is designed to summarize all activities within the SWMP. It identifies each BMP with activity descriptions, how it meets specific permit requirements, responsible County departments, measurable goals, implementation schedules, and documentation needs over the five-year permit period. Appendix B lists the BMPs by permit requirement. The subsequent appendices provide reference material and help serve as a toolbox to keep the SWMP updated as required. Section 4 details the SWMP development process.

4.0 COMPLIANCE APPROACH

Hays County developed this SWMP to comply with TPDES requirements for stormwater discharges and certain non-stormwater discharges. The SWMP is intended to aid in the County's efforts to reduce stormwater pollutants from the County's storm sewer system to the MEP as required by the Small MS4 General Permit.

The SWMP describes specific actions that will be taken over this permit term to reduce pollutants and protect the County's stormwater quality. The specific activities to be implemented are referred to as BMPs. Various BMPs have been developed for each of the required MCMs. The SWMP also sets measurable goals and provides a schedule for the implementation of the BMPs. Implementation of the selected BMPs is expected to result in a reduction of pollutants discharged into County's streams, ponds, and lakes.

The BMP Activities and Documentation List (Appendix A) has been developed to demonstrate compliance in one location with descriptions, measurable goals, implementation and maintenance schedules, and documentation needs for the BMPs the County has implemented or will implement. Appendix A will serve as the summary of written procedures describing how the permittee will implement the provisions in Parts III and IV of the Small MS4 General Permit. In addition to Appendix A, the County will develop specific compliance guidance for the day-to-day operations of its SWMP. The compliance guidance documentation will provide greater specificity for the activities the County will conduct to address the compliance requirements and the documentation that will be maintained to demonstrate compliance through the annual report.

The County will annually review the SWMP and the implementation procedures for MCMs 1 through 4 and update as necessary. Refer to Section 5.3 Program Updates for the identification of all applicable reporting requirements related to Notice of Change (NOC).

4.1 Best Management Practice Selection Process

The County assessed existing program elements set forth in the previous permit, modified as necessary, and developed and implemented necessary new elements to continue reducing the discharge of pollutants from the MS4 to the MEP. As a result, BMPs described in the previous permit were kept, modified, or replaced as necessary.

4.1.1 Assessment of Existing BMPs

Hays County has historically implemented various BMPs intended to protect stormwater quality. An important aspect of developing an effective, compliant, and cost efficient SWMP is to account for the existing programs that are efficiently benefitting water quality. Likewise, a successful SWMP involves modifying or eliminating inefficient or ineffective existing BMPs. As such, one of the initial steps of the assessment process included collaboration with staff from County departments to modify or eliminate existing BMPs.

4.1.2 Identification of Additional BMPs

The second step identified additional BMPs that would meet requirements of the permit and protect water quality to the MEP. Additional BMPs were selected to supplement the County's existing programs and to satisfy unmet requirements of the Small MS4 General Permit. The additional BMPs were evaluated based on their ability to meet at least one, and preferably several, of the MCM requirements.

The evaluation process involved researching a variety of sources of BMPs, such as regulatory agencies, industry associations, and private enterprises. Some of the additional BMPs were selected directly from standard BMP “toolboxes” available from the EPA or other technical sources, while others were tailored to the specific needs of Hays County. Each BMP considered was evaluated based on the following criteria:

- Which of the minimum control measure requirements does the BMP meet?
- How does the BMP fit into the County’s existing goals, operations, and activities?
- What is the anticipated effectiveness of the BMP?
- What is the general cost range to implement the BMP?

Specific costs for the BMPs were not identified during the development of this SWMP; however, BMPs with significant investment requirements and relatively minor stormwater quality benefit were not selected. More detailed budget requirements will be evaluated, as needed, during the implementation of the BMP.

4.2 Selection Process for Measurable Goals and Implementation Schedule

Specific measurable goals have been developed for each BMP. In accordance with the permit requirements, measurable goals have been developed to evaluate the success of the County's SWMP toward reaching the goal of protecting water quality and reducing pollutants to the MEP. Goals were selected with a consideration toward achieving steady implementation, assessing the ability to measure and track progress, and working within budgetary constraints. In general, measurable goals for existing BMPs monitor the effectiveness of the BMP, whereas measurable goals for new BMPs monitor their implementation progress.

The TCEQ has authorized the steady implementation of new BMPs over a multi-year period. For new BMPs, the first year of the permit program is largely dedicated to identifying the approach to implement each activity. The second through fifth years focus on implementation, evaluating the effectiveness of existing BMPs, and tracking the implementation of new BMPs. For existing BMPs, the first year of the permit term is largely dedicated to continuing and evaluating the existing activities.

4.3 Measurable Goal Evaluation Process

The selected measurable goals for each BMP will be evaluated on an annual basis. Implementation of each BMP will be tracked as appropriate during each permit year in order to provide documentation of the BMP activities. Relative success at achieving the measurable goals, as well as an assessment of the effectiveness of each BMP, will also be evaluated on an annual basis.

Multiple County departments are responsible for implementing portions of the SWMP and for tracking and evaluating the County's success in meeting the program's measurable goals. Each County department with activities or responsibilities that may impact stormwater quality will maintain documentation showing progress towards meeting the annual measurable goals for each BMP and make this information available to the person designated for SWMP coordination.

4.4 Targeted Controls for Impaired Water Bodies

As summarized in Section 2.2 and Table 1, there is a direct discharge of stormwater to Onion Creek, which is listed as impaired by sulfate. The 2014 Texas Integrated Report lists the sulfate source to be a point source caused by drought related impacts. Point sources of sulfate include sewage treatment plants, industrial plants, and their discharges. Elevated sulfate concentrations are typically not caused by stormwater discharges; therefore, additional loadings of sulfate are not expected from the MS4. A TMDL has not been approved at this time. Stormwater discharges from the MS4 are not expected to be a source of the pollutant, and therefore, focused BMPs and measurable goals related to Part II.D.4 of the permit (Impaired Water Bodies and TMDL Requirements) are not required.

Additionally, there is a direct discharge of stormwater to Plum Creek, a water body impaired by bacteria. Therefore, the SWMP is required to include focused BMPs with corresponding measurable goals related to Part II.D.4. of the permit (Impaired Water Bodies and TMDL Requirements). A TMDL for bacteria in Plum Creek has not been approved at this time; therefore, no benchmark has been established.

During the update of this SWMP, the County has identified targeted controls for the reduction of bacteria loading to Plum Creek by identifying residential areas as a focus for bacteria reduction along with control of

discharges from the sanitary sewer system. Focused BMPs have been identified that are intended to specifically address bacteria loading and they include the following:

- Distribute Educational Material
- Stormwater Reporting by Public
- Illicit Discharge and Spill Inspection, Investigation, and Response
- On-Site Sewage Disposal System Procedures

The County will check annually if an impaired water within its permitted area has been added to the latest 303(d) or 305(b) list or the 2014 Texas Integrated Report Index of Surface Water Quality. Within two years following the approval date of the addition of any impaired water bodies, the County will assess if the MS4 discharges are a source of the pollutant of concern, and if so, identify targeted controls, measurable goals, and benchmarks for addressing the pollutant consistent with the permit requirements.

4.5 Legal Authority and Regulatory Mechanism

The County, in accordance with the general permit conditions of Part III, Section A.3, will review and revise, if needed, its regulatory mechanism(s) that provide the County with adequate legal authority to control pollutant discharges into and from its small MS4 in order to meet the requirements of this general permit. The County does not have the authority to develop ordinances to enforce the requirements of the permit; however, the County will exert enforcement authority for its County-owned facilities, County employees, County contractors, and any other entity over which it has operational control within the portion of the urbanized area under jurisdiction of the permittee.

In addition, the County will notify adjacent MS4 operators with enforcement authority or the TCEQ Regional Office to report discharges or incidents that the County cannot enforce against.

4.6 Assessment of Allowable Non-Stormwater Discharges

In accordance with the requirements of the Small MS4 General Permit, the following list of non-stormwater discharges will be reviewed in order to determine whether they are known to be significant contributors of pollutants to the County's water bodies:

1. Water line flushing (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
2. Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;

3. Discharges from potable water sources that do not violate TCEQ Texas Surface Water Quality Standards;
4. Diverted stream flows;
5. Rising ground waters and springs;
6. Uncontaminated ground water infiltration;
7. Uncontaminated pumped ground water;
8. Foundation and footing drains;
9. Air conditioning condensation;
10. Water from crawl space pumps;
11. Individual residential vehicle washing;
12. Flows from wetlands and riparian habitats;
13. Dechlorinated swimming pool discharges that do not violate TCEQ Texas Surface Water Quality Standards;
14. Street wash water excluding street sweeper wastewater;
15. Discharges or flows from emergency firefighting activities (firefighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
16. Other allowable non-stormwater discharges listed in Title 40 of the Code of Federal Regulations Chapter 122.26(d)(2)(iv)(B)(1);
17. Non-stormwater discharges that are specifically listed in the TPDES Multi-Sector General Permit (MSGP) TXR050000 or the TPDES CGP TXR150000;
18. Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
19. Other similar occasional incidental non-stormwater discharges such as spray park water, unless the TCEQ develops permits or regulations addressing these discharges.

Non-stormwater discharges from the list above must be evaluated by the County to determine if any known, significant water quality impacts were created as a result of the discharges. Evaluation of allowable non-stormwater discharges will be conducted as part of the illicit discharge inspection BMP identified in Appendix A.

5.0 RECORDKEEPING AND REPORTING

5.1 Recordkeeping

The County will maintain all records, a copy of the Small MS4 General Permit, and all data used to complete the NOI for this permit for a period of at least three years, or for the term of this permit, whichever is longer. A current, up-to-date copy of the SWMP and a copy of the general permit requirements will be maintained at County Offices.

Additionally, the County will make the compiled records, including the NOI and SWMP, publicly accessible through posting on the County's website. The County will post the NOI and SWMP on the website no later than 30 days after the date approved by TCEQ. For changes to the SWMP requiring public notice, the County will post the Executive Director's preliminary determination of the NOC and the revised terms of the SWMP on the County's website per the specifications outlined in Section 5.3.

5.2 Annual Report

The County will submit an annual update report to the Executive Director of the TCEQ within 90 days of the end of each reporting year. The annual report will also be submitted to the TCEQ Regional Office that serves the area of the regulated small MS4. The reporting year can be based on one of three timeframes: the permit year, the County's fiscal year, or the calendar year. The County chooses to report years on the calendar year. The time period between December 13th, 2018 (the end of the previous permit term) and January 24th, 2019 (the effective date of the new permit term) will be included in year one reporting. The County will post the annual reports on the County's website no later than 30 days after the annual report due date of March 31st.

The annual report will summarize the County's actions to address the requirements listed in the Small MS4 General Permit. Generally, the update report will document the stormwater-related activities for the previous year, evaluate and analyze the success of each BMP and targeted controls relative to their measurable goals, and discuss plans for the upcoming year, including modifications to the SWMP. Modifications may include replacement of BMPs, alteration of the implementation schedule, or other changes allowed by the permit.

5.3 Program Updates

This program may be updated by the County at any time. When considering eliminating a BMP, the information in Appendix B is recommended to be reviewed to determine if the removal of the BMP will result in non-compliance for any of the MCMs. This would occur if, for example, the BMP is the only BMP that provides compliance for a specific permit provision. In such a case, the BMP would need to be replaced with a new BMP that continues to meet the relevant permit requirement.

Specific requirements for SWMP changes and documentation of program updates involving changes in BMPs, measurable goals, or the implementation schedule are located within the Small MS4 General Permit located within Appendix G.

Changes to the SWMP that are made after TCEQ approval of the NOI and SWMP may require the submittal and approval of a NOC by the TCEQ and be subject to public notice requirements if the modifications are significant. If the change requires posting of public notice, the County will post the notice of the Executive Director's preliminary determination of the NOC and the revised terms of the SWMP on the MS4's website. The public comment period begins the first day the notice is posted on the website and ends 30 days later.

Requirements for changes to the SWMP are outlined as follows:

Changes that do not require a NOC

- Adding (but not subtracting or replacing) components, controls, or requirements to the SWMP;
- Adding areas such as by annexing land or subtracting areas, such as by de-annexing land;
- Adding impaired water bodies that are identified during the annual review;
- Minor modifications to the SWMP that include administrative or non-substantial changes, such as a change in personnel, minor clarification to the existing BMPs, correction of typographical errors, etc.

Changes that require a NOC

- Replacing a less effective or infeasible BMP with an alternative BMP
- Requirements for more frequent monitoring or reporting by the permittee
- Interim compliance date change in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement

Changes that require a NOC and Public Notice

- All other modifications that change permit terms and conditions

5.4 Reference Material

Several sources of information are available for use in the maintenance and update of the SWMP. Each of these resources is recommended for additional information about alternative BMP options.

- The U.S. EPA has developed an electronic stormwater management BMP Toolbox specifically for use by small MS4 regulated entities. It contains a list of BMPs for each minimum control measure. It can be accessed at: https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu.
- The Center for Watershed Protection offers a good resource for publications and on-line documentation regarding stormwater quality at http://www.cwp.org/

6.0 DEFINITIONS

The following are definitions to key words or phrases that are used throughout this SWMP. The definitions are taken directly from the renewed TPDES General Permit No. TXR040000.

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

Benchmarks - A benchmark pollutant value is a guidance level indicator that helps determine the effectiveness of chosen best management practices (BMPs). This type of monitoring differs from "compliance monitoring" in that exceedances of the indicator or benchmark level are not permit violations, but rather indicators that can help identify problems at the MS4 with exposed or unidentified pollutant sources; or control measures that are either not working correctly, whose effectiveness need to be re-considered, or that need to be supplemented with additional BMP(s).

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

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

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

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 existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing rights-of-way, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Small Construction Activity is construction activity that results in land disturbance of equal to or greater 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 activity that results in land disturbance of equal to or greater than five (5) 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 entity or entities associated with a small or large construction project that meet(s) either of the following two criteria:

- 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

- 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 Measure - 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 Limestones 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 any of the following conditions are met:

1. All soil disturbing activities at the site have been completed and a uniform (for example, 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.

2. 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.

3. For construction activities on land used for agricultural purposes (for example 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.

4. In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:

    1. Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and

    2. The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

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.

Groundwater Infiltration - For the purposes of this permit, groundwater that enters a municipal separate storm sewer system (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 municipal separate storm sewer.

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency fire-fighting 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 § 1151 as: (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 U.S. whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state; and 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).

Infeasible - For the purpose of this permit, infeasible means not technologically possible, or not economically practicable and achievable in light of best industry practices. The TCEQ notes that it does not intend for any small MS4 permit requirement to conflict with state water right laws.

Maximum Extent Practicable (MEP) - The technology-based discharge standard for municipal separate storm sewer systems (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 municipal separate storm sewer system 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):

1. 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;

2. That is designed or used for collecting or conveying stormwater;

3. That is not a combined sewer; and

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

Non-traditional Small MS4 - A small MS4 that often cannot pass ordinances and may not have the enforcement authority like a traditional small MS4 would have to enforce the stormwater management program. 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 municipal separate storm sewers, 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 (TSS), turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from an MS4. (Definition from 40 CFR § 122.32(e)(3)).

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

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

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

1. Owned or operated by the U.S., 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;

2. Designed or used for collecting or conveying stormwater;

3. Which is not a combined sewer;

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

5. Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a

medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

This term includes systems similar to separate storm sewer systems at military bases, large hospitals 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 a small 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 or a small construction activity.

Stormwater Management Program (SWMP) - A comprehensive program to manage the quality of discharges from the municipal separate storm sewer system.

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 stormwater management program. An example of traditional MS4s includes cities.

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

Waters of the United States - (According to 40 CFR § 122.2) Waters of the United States or waters of the U.S. means:

1. 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;

2. All interstate waters, including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, 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;

4. All impoundments of waters otherwise defined as waters of the United States under this definition;

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

6. The territorial sea; and

7. 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 the 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 U.S. 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 the CWA jurisdiction remains with the EPA.