

CITY OF KILLEEN

STORMWATER

MANAGEMENT PROGRAM



In compliance with the requirements of the
Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR040000

Permittee Authorization No. TXR040010

Permit Term: January 2024 – January 2029



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COMMONLY USED ACRONYMS

BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, TXR150000
CWA	Clean Water Act
ECP	Erosion Control Plan
EPA	Environmental Protection Agency
CFR	Code of Federal Regulations
KKB	Keep Killeen Beautiful
O&M	Operation and Maintenance
OSSF	On-Site Sewage Facilities
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MSGP	Multi-Sector General Permit, TXR050000
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Change
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
SOP	Standard Operating Practices
SSO	Sanitary Sewer Overflows
SWMP	Stormwater Management Program
SWP3, SWPPP	Stormwater Pollution Prevention Plan
SWQM	Surface Water Quality Monitoring
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TWC	Texas Water Code



DEFINITIONS

Refer to the MS4 General Permit, Part I ([Appendix B](#), pages 6-12).



I. Introduction

The City of Killeen (City) is subject to the requirements of the Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000. The renewal of the stormwater permit requires the City of Killeen to review and assess their existing Stormwater Management Program (SWMP) and develop a new program implementing best management practices which comply with the permit requirements. A copy of the TCEQ MS4 General Permit TXR040000 can be found in [Appendix B](#).

The program documents the best management practices chosen by the City of Killeen to address community-wide stormwater quality issues, including target audiences and a schedule for implementation over the five-year permit term. The intent of the program is to identify and implement City-wide measures to reduce the discharge of pollutants into the Municipal Separate Storm Sewer System (MS4) which includes streets, storm drain systems, roadside ditches, streams, rivers, and other water bodies.

A. Permit Background

Under the Clean Water Act of 1972 (CWA), the National Pollutant Discharge Elimination System (NPDES) was established in an effort to protect the waters of the United States. The U.S. Environmental Protection Agency (EPA) was appointed to govern the rules on how the program will be implemented. The NPDES program then established the MS4 program in two phases. Phase I, promulgated in 1990, required the municipalities serving a population of 100,000 or more to acquire the NPDES permit by submitting a Stormwater Management Program (SWMP) that addresses how the municipality would reduce pollutant discharges, protect water quality, and satisfy the water quality requirements of the CWA. In 1998, the EPA and Texas Commission on Environmental Quality (TCEQ) signed an agreement for the EPA to transfer the regulatory authority over to TCEQ as the law applies in the State of Texas.

This plan falls in compliance with the information provided in the MS4 General Permit TXR040000 for the minimum control measures as well as other permit requirements, including the Endangered Species Act, and the Historic Preservation Act.

The NPDES became Texas Pollutant Discharge Elimination System (TPDES) under TCEQ's authority. Based on the Stormwater Phase II Final Rule issued by the EPA in 1999, The TCEQ then wrote and issued the General Permit TXR040000, generally called the MS4 general permit, for other small municipalities serving a population of less than 100,000 and being part of urbanized areas, as listed by the U.S. Census Bureau. The MS4 permit identified seven minimum control measures, which must be addressed by the permit holders in their SWMP. Each term of the MS4 permit lasts for five years. The current TCEQ permit is now in its third term with an effective date of January 24, 2019.

The permit categorizes MS4 permittees into four levels based on the population served within the 2010 urbanized areas. The MS4 area may change during the permit term if the permittee acquires or gives up regulated area, such as the annexing of land or if land is annexed away. However, the level will not change based on population fluctuation. The anticipated 2020 U.S. Census will take place during this permit term. Nevertheless, it will not affect the permittee's level until the permit renews for its fourth term in 2024. The City of Killeen's level as defined by TCEQ as follows:

- a. Level 4: Traditional MS4s with a population over 100,000



B. Permit Requirements

The permit establishes seven minimum control measures (MCM) to reduce the discharge of pollutants to the maximum extent practicable. MS4 permittees are required to address all of the following MCMs in their SWMP:

MCM 1 – Public Education

MCM 2 – Public Outreach and Involvement

MCM 3 – Illicit Discharge Detection and Elimination (IDDE)

MCM 4 – Construction Site Stormwater Runoff Control

MCM 5 – Post-Construction Stormwater Management in New Development and Redevelopment

MCM 6 – Pollution Prevention and Good Housekeeping for Municipal Operations

MCM 7 – Industrial Stormwater Sources

The application for coverage includes a Notice of Intent (NOI) and a SWMP. The NOI for the City of Killeen can be found in [Appendix B](#). The permit requires MS4 permittees to include the following items in the SWMP at a minimum:

1. A list of best management practices (BMPs) and measurable goals which meets the intent of each MCM.
2. An implementation schedule showing the year and frequency of required actions over the five-year period of the program, such that the program is fully implemented by the end of the permit term.
3. A rationale statement that addresses the overall program and how the BMPs and measurable goals were selected.
4. A summary of how the permittee will execute the SWMP and a list of any entities assisting with developing and implementing the program.
5. A description of how the SWMP complies with the requirements related to impaired water bodies and any total maximum daily load (TMDL) requirements, and identification of any impaired waters that the permittee discharges into.

Upon receiving a preliminary decision from the Executive Director of the TCEQ, permittees must provide public involvement in the process of adopting the new SWMP by publishing a public notice and offering a public comment period. After the new SWMP is approved by TCEQ, permittees must annually review the SWMP and submit an annual report on the previous year's activities to the TCEQ.

[Impaired Water Bodies and Total Maximum Daily Load \(TMDL\) Requirements](#)

A water body is considered impaired for purposes of the permit if it has been identified on the latest TCEQ- and EPA-approved Clean Water Act (CWA) 303(d) list or within the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d), which lists the category 4 and 5 water bodies. These lists identify water bodies that do not meet the Texas Surface Water Quality Standards (SWQS). Discharges of any pollutant(s) of concern to impaired water bodies for which there is a TCEQ and EPA approved TMDL are not eligible under this permit unless they are consistent with the approved TMDL.



Permittees are required to annually check if any stream segments or water bodies that the MS4 discharges into have been added to the EPA-approved Texas Integrated Report of Surface Water Quality Sections 305(b) and 303(d). The newly listed segment or water bodies must be included in the annual report and addressed for potential sources of pollutants from the MS4 within two years of the new 305(b) and 303(d) lists' approval date.

At the time of this plan's creation, the most current TCEQ approved list is the 2022 Texas 303(d) list, which was approved on July 7, 2022. The TCEQ has adopted the Draft 2022 Texas 303(d) list on June 1, 2022.

Permittees can find latest updates to the Texas 303(d) list and the EPA approved 2012 Texas 303(d) list on the following website: <https://www.tceq.texas.gov/waterquality/assessment>

Detailed requirements for impaired water bodies and TMDL can be found in the MS4 General Permit Part II.D.4 ([Appendix C](#), pages 17-21).

II. Program Rationale

A. City of Killeen Background

The City of Killeen is located in north central Texas. The City predominantly lies within the limits of Bell County, altogether covering an area of approximately 54.85 square miles. The City of Killeen is located in Central Texas, and shares its boundaries with the City of Harker Heights, Fort Cavazos, and Bell County. A map displaying the City of Killeen location is shown in [Appendix A](#) along with the urbanized area limits per the 2020 Decennial Census.

With a 2020 Census population of 153,095, the City of Killeen must meet all requirements of a Level 4 MS4. Level 4 MS4s are required to address the requirements of MCM 1 through MCM 6, as well as other requirements in addition to the general requirements for all permittees.

The sixth MCM, Industrial Stormwater Sources, is a required MCM for a Level 4 MS4. Therefore, Killeen has excluded MCM 8 from the SWMP. The eighth MCM 8, Authorization for Construction Activities where the Small MS4 is the Site Operator, is optional, the City of Killeen has elected not to adopt MCM 8.



B. Allowable Non-Stormwater Discharges

The following non-stormwater discharges may be discharged from the City of Killeen and are not required to be addressed in the Illicit Discharge Detection and Elimination or other minimum control measure, unless they are determined by the City of Killeen or TCEQ to be significant contributors of pollutants:

1. A discharge authorized by, and in full compliance with, an NPDES and/or TPDES permit (other than the NPDES and/or TPDES permit for discharges from the MS4);
2. A discharge or flow resulting from firefighting by the fire department, does not include routine vehicle washing or non-emergency fire flows;
3. A discharge or flow of fire protection water that does not contain oil or hazardous substances or materials that the fire code requires to be contained and treated prior to discharge, in which case treatment adequate to remove harmful quantities of pollutants must have occurred prior to discharge;
4. A discharge from a fire hydrant flushing;
5. Incidental discharges from water line pressure release valves;
6. Uncontaminated runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;
7. Uncontaminated water used for dust control purposes;
8. A discharge or flow from a diverted stream flow or natural spring;
9. A discharge or flow from uncontaminated pumped groundwater or rising groundwater;
10. Uncontaminated groundwater infiltration (as defined as 40 C.F.R. § 35.2005(20)) to the MS4;
11. Uncontaminated discharge or flow from a foundation drain, crawl space footing drain, or sump;
12. A discharge or flow from a potable water source not containing any harmful substance or material from the cleaning or draining of a storage tank or other container;
13. A discharge or flow from air conditioning condensation that is unmixed with water from a cooling tower, emissions scrubber, emissions filter, or any other source of pollutant;
14. A discharge or flow from a riparian habitat or wetland;
15. A discharge or flow from water used in street washing that is not contaminated with any soap, detergent, degreaser, solvent, surfactant, emulsifier, dispersant, or any other harmful cleaning substance;
16. Stormwater runoff from a roof that is not contaminated by any runoff or discharge from an emissions scrubber, filter, or any other source of pollutant;
17. Swimming pool water free of diatomaceous earth and that contains no harmful quantity of free chlorine (less than 0.5ppm), muriatic acid or other chemical (less than 20ppm cyanuric acid) used in the treatment or disinfection of the swimming pool water or in pool cleaning and pH must be between 6.0 and 9.0 standard units. This also includes discharges of Salt water pools;



18. Other allowable non-stormwater discharges listed in 40 CFR § 122.26(d)(2)(iv)(B)(1);
19. Non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) or the TPDES Construction General Permit; and
20. Other similar occasional incidental non-stormwater discharges, unless the TCEQ develops permits or regulation addressing these discharges.

C. Waterbodies Receiving Discharges from the City of Killeen

The City of Killeen is located in the Brazos River basin. The City drains to South Nolan Creek, Nolan Creek, Little Nolan Creek, Long Branch, Trimmier Creek, Onion Creek, Rock Creek, Reese Creek, Unnamed Tributary of Trimmier Creek, and Stillhouse Hollow Lake above the Lampasas River. The TCEQ- regulated receiving waterbodies, their respective watersheds and segment identification numbers are shown in [Appendix A](#).

The City pledges to not knowingly or intentionally discharge to surface waters of the State in a manner that would contribute to a violation of water quality standards or that would fail to protect and maintain existing uses as a part of this permit. The City is aware that discharges contributing to a violation of water quality standards are not covered by this general permit. Should the City find itself in a position where discharges of this nature occur, the City is aware that the executive director may require an application for an individual permit.

City staff currently has knowledge that stormwater discharges from the City flow into five impaired water bodies being an unnamed tributary of Trimmier Creek (Segment 1216D), Lampasas River above Stillhouse Hollow Lake (Segment 1271), Nolan Creek/South Nolan Creek (Segment 1218), Little Nolan Creek (Segment 1218C), and Long Branch (Segment 1218D) as listed in the 2022 Texas Integrated Report Index of Water Quality Impairments approved by the EPA on July 7, 2022 (Figure 1 and Figure 2). City staff will annually check whether an impaired water within the City limit has been added to the latest EPA approved 303(d) list and ensure that the discharges from the City into that impaired waterbody are evaluated and treated appropriately. The City is committed to taking appropriate actions to protect water quality when necessary.

<i>Segment ID #1216D</i>	<i>Unnamed Tributary of Trimmier Creek</i>	<i>Category 5c</i>	<i>Listed Since 2002</i>
	<i>Impaired for Bacteria in Water (Recreational Use)</i>		

<i>Segment ID #1217</i>	<i>Lampasas River Above Stillhouse Hollow Lake</i>	<i>Category 5c</i>	<i>Listed Since 2002</i>
	<i>Impaired for Bacteria in Water (Recreational Use)</i>		

<i>Segment ID #1218</i>	<i>Nolan Creek/South Nolan Creek</i>	<i>Category 5c</i>	<i>Listed Since 1996</i>
	<i>Impaired for Bacteria in Water (Recreational Use)</i>		

<i>Segment ID #1218C</i>	<i>Little Nolan Creek</i>	<i>Category 5C</i>	<i>Listed Since 2010</i>
	<i>Impaired for Bacteria in Water (Recreational Use)</i>		

<i>Segment ID #1218D</i>	<i>Long Branch</i>	<i>Category 5b</i>	<i>Listed in 2020</i>
	<i>Impaired for Bacteria in Water (Recreational Use)</i>		



The City discharges into an Unnamed Tributary of Trimmier Creek (Segment 1216D), Nolan Creek/South Nolan Creek, Little Nolan Creek and Long Branch (Segments 1218, 1218C, & 1218D), Stillhouse Hollow Lake above the Lampasas River (1217) and Reese Creek (1217F) which is listed in the *Texas Integrated Report for Bacteria in the Brazos River Watershed* approved by the EPA on July 7, 2022.

The characteristics of the Lampasas River (segment 1217 in the Brazos River Basin), the river originates near the city of Hamilton and travels for 75 miles through Central Texas to a man-made reservoir called Stillhouse Hollow Lake. The river flows southeast through Lampasas, Burnet and Bell counties. It converges with the Leon River to form the Little River near Belton.

The Lampasas River is characterized by relatively low water levels most of the time and is situated within a predominantly rural and agricultural landscape. Land use within the watershed is mostly rural, with grasslands and row crops. Major agricultural interests include beef cattle on rangeland, in addition to hay, wheat, oats, sorghum, corn, cotton, peanut, and pecan operations.

Recreational uses of the waterbody are considered to be impaired. Bacteria exceed established criteria. These organisms are generally not harmful to human health but may indicate the presence of pathogens that can cause disease or gastrointestinal illnesses. The Lampasas River above Stillhouse Hollow Lake is listed on the *2008 Texas 303(d) List* for elevated bacteria levels.

The data used to assess bacterial concentrations in the Lampasas River is the result of sampling conducted in 1998 and 1999 through the Clean Rivers Program. Fecal coliform samples were taken at 5 designated sampling sites along the Lampasas River. It was observed that two of the five sampling sites indicated a use concern or non-support of contact recreation. While *E. coli* samples were collected, none have been assessed within the period for the *2008 303(d) List*. TCEQ has initiated a twenty-four-month monitoring project at Station 15770 in the upper portion of the watershed.

Although routine sampling indicates the presence of elevated bacteria levels in the Lampasas River the origin of this source is unclear. In order to shed light on the sources contributing to the Lampasas River bacteria impairment, library-dependent BST is needed. This approach will utilize proven scientific appropriate management measures can be implemented for the respective sources.

The Unnamed Tributary of Trimmier Creek (Segment 1216D), Nolan Creek/South Nolan Creek, Little Nolan Creek and Long Branch (Segments 1218, 1218C, & 1218D), Stillhouse Hollow Lake above the Lampasas River (1217) and Reese Creek (1217F), flowing through Killeen has been listed as impaired for bacteria since 2002, 1996, 2010, 2020, 2002.

However, the listed waterbodies currently do not have a TMDL in place. In response to Part III Section B.1.a. the City acknowledges it cannot claim discharges from its MS4 do not likely contain the pollutant of concern related to the impairment in the Unnamed Tributary of Trimmier Creek (Segment 1216D), Nolan Creek/South Nolan Creek, Little Nolan Creek and Long Branch (Segments 1218, 1218C, & 1218D), Stillhouse Hollow Lake above the Lampasas River (1217) and Reese Creek (1217F),

In response to the bacteria impairment of the Unnamed Tributary of Trimmier Creek (Segment 1216D), Nolan Creek/South Nolan Creek, Little Nolan Creek and Long Branch (Segments 1218, 1218C, & 1218D), Stillhouse Hollow Lake above the Lampasas River (1217) and Reese Creek (1217F), the City has included in the SWMP several BMPs which will help address the potential bacteria sources within



the City such as sanitary sewer overflows and septic systems. The City will also continue to provide dog waste bag holders.

D. Stormwater Management Program Development

The City personnel who are responsible for the implementation of each MCM attended the respective meetings. The meetings helped educate the City staff about the permit and the program. The Stormwater Division is responsible for implementing most of the BMPs in the program. The departments which cooperate with the Stormwater Division to implement the SWMP include Utility Billing, Communications, Engineering, Parks and Recreation, Street Operations, Mowing and Drainage and Water and Sewer.

E. BMP Selection Process

During the SWMP review and development process, the City kept many existing BMPs that have proved effective in reducing and preventing stormwater pollution. Some existing BMPs were modified to ensure they comply with the permit changes. BMPs that were determined as unsuitable or ineffective were removed and replaced with more applicable BMPs. City staff discussed the overall program goals and evaluated all BMPs to ensure the reduction of stormwater pollutants to the maximum extent practicable (MEP).

F. Selection of Measurable Goals

Measurable goals were chosen to be clear, specific, and measurable. The intent was to select goals that assess the effectiveness or appropriateness of the BMPs and are straightforward so the City personnel can easily keep track of progress without over-extending staff resources. The City made sure that any ongoing activities to reduce the discharge of pollutants to the MEP were considered and incorporated into the program.

G. Implementation Plan

A detailed implementation plan is included in Section IV which identifies the year each goal will be achieved over the five-year period of the program. The plan outlines the BMPs with respective measurable goals and responsible departments, grouped by each MCM. Target audiences are also listed for MCM 1 – Public Education. The permit requires that all relevant ordinances or other regulatory mechanisms that provide legal authority for the City to control pollutant discharges be updated or adopted within the first two years from the permit effective date. The City has scheduled any new corresponding BMPs to be completed by the end of Year 2.

The existing BMPs that are to be implemented annually will continue to be monitored and enforced every year during this permit term. A primary goal for the City's implementation plan is to ensure clarity so the City and TCEQ can easily keep track of the yearly activities and progress towards reducing pollutants to the MEP.



H. Annual Reporting and Tracking

The City shall submit an annual report on the previous year's activities to TCEQ within 90 days of the end of each reporting year. The City of Killeen has chosen the reporting period to be the **calendar year**. Reporting Year 1 will start from the permit effective date of January 24, 2024 to December 30, 2024; each subsequent reporting year shall be from January 1 of the current year to December 30 of the following year. The annual report shall comply with Part V.B.2 ([Appendix C](#), page 73), including a summary of any actions taken to address the City's listed impaired waters, as compliant to Part V.B.1 ([Appendix C](#), page 72).

The annual report shall be submitted to the TCEQ office address as follows:

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

A copy of the report must also be submitted to the TCEQ Region 9 (Waco) office address as follows:

TCEQ Region 9 (Waco)
6801 Sanger Ave #2500
Waco, Texas 76710

The City shall keep a copy of the annual report in house and post the report on the City's official website. The electronic version of the SWMP will be posted within 30 days of the approval date and the annual reports within 30 days of the submittal date.

The TCEQ's annual report template can be found in [Appendix D](#).

I. Recordkeeping

The City shall retain all records including a copy of this TPDES general permit, and records of all data used to complete the application (NOI) for this general permit and 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 documents shall be retained at:

City of Killeen – Stormwater Office
1301-A South W S Young Dr
Killeen, TX 76542

The City will post the approved SWMP and annual reports on the following website:
<https://www.killeentexas.gov/Stormwater>

The City of Killeen's NOI can be found in Appendix A.



III. Minimum Control Measures (MCMs)

Under each MCM heading, there is a list of the proposed BMPs that were selected to meet the permit requirements and the water quality protection goals and objectives of the City of Killeen. This section provides an overview of the BMPs which represent the City's continued efforts to comply with the permit to reduce stormwater pollution to the MEP.

A. MCM 1 – Public Education and Outreach

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.1 (Appendix B) for the Public Education.

Goals and Objectives

The City of Killeen has identified the following problems to be community wide issues:

- Littering around major shopping complexes and other local businesses
- Chemicals, wastes and discharges related to lawn care and pool maintenance activities
- Erosion control and construction wastes from development sites.

Litter and debris make public places visually unpleasant. Moreover, during rain events, litter and debris can pollute the water bodies and cause flooding by clogging storm drain structures. When lawn clippings and leaves get blown into the streets, they eventually are washed away into storm drain structures and waterways during rain events. Lawn (yard) wastes in rivers and lakes negatively impacts water quality and aquatic life as it enhances the growth of algae blooms. Yard waste can also cause flooding, by clogging storm drains. Pet waste can cause bacteria related issues in the waterbodies that run through the city, not to mention could possibly contain parasites that could be harmful to other pets or humans. Chemicals and household hazardous wastes (HHW) contain dangerous toxins which can contaminate the water bodies, leaving long-term effects to the water quality. The City currently has a variety of programs such as the Household Hazardous Waste (HHW) Collection, and Creek Clean Up, to help address these issues and educate the residents on how to reduce the pollutants to the MEP. Furthermore, educational information and materials about stormwater are also provided through the City's website and e-newsletters, and also handed out at special events throughout the year.

Sediment and wastes from construction runoff can greatly impact the aquatic habitat and quickly fill rivers and lakes, reducing their storage capacities. City staff are made available every week to answer questions and review City policies regarding development within the City for any developers who have questions. In addition, an annual builder's/developer's workshop is held to provide information about various topics related to development and construction activities, including the City's erosion and sediment control requirements.

The City will also post the approved SWMP and annual reports on the City's stormwater website, which will help educate residents and visitors about the overall stormwater program and the progress each year, with all to be implemented within the five (5) year permit term.



2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the Public Education, Outreach, and Involvement MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals, target audiences, and responsible departments.

Additional Target Audiences	Responsible Departments
Schools, educational organizations, or youth service and youth groups	Stormwater
Businesses, including commercial facilities, home-base and mobile businesses	Public Works (transportation, water and sewer, mowing and drainage, solid waste, recycling)
Institutions or formal organizations such as churches, hospitals, and service organizations	Parks and Recreation
Developers or construction site operators	Engineering
Homeowner or neighborhood associations	Communications & Utility Billing
Industrial facilities	
Visitors/tourists	

(1.01) General Education on Stormwater

The City will develop fact sheets, brochures and door hangers related to stormwater such as the SWMP, stormwater pollution prevention, public events such as Bow Wow Luau, Farmer’s Markets, effects of pet waste on stormwater, effects of yard waste, effects of erosion on stormwater, and proper disposal of fats, oils, and grease (FOG). The articles will be provided to residents through printed handouts to be distributed at public events and displayed at the Transportation office at 3201A South WS. Young Drive or other available avenues.

(1.02) Utility Bill Inserts

The city will send out 2 utility bill insert to all of the residents and businesses with in the city’s boundaries. These inserts will be used to provide information concerning stormwater, yard waste, pet waste, information about HHW collections dates, illegal dumping and illicit discharge. The City will post information about stormwater related issues on the City’s Stormwater webpage as appropriate and within the City’s posting guidelines.

(1.03) Storm Drain Inlet Marking

City staff will provide door hangers and handouts, as well as posting on the City’s Stormwater webpage the benefits of inlet marking as well as the potential dangers of allowing pollutants to enter the storm drain system. The city has been in contact with several local groups to assist with the storm drain marking campaign. We are working with the development community to have them mark the inlets of their subdivisions as part of their final inspection.



(1.04) Stormwater Website

The city will maintain a Stormwater webpage. This page will have links to our brochures, TCEQ links for construction general permit, and multi-sector general permit. The webpage will also contain copies of the SWMP and annual reports.

(1.05) Stormwater Education at Special Events and Educational Meeting-Training

City staff will provide stormwater information to the public. This information will consist of brochures for illicit discharge, illegal dumping, what is stormwater, yard waste, pet waste, fats, oils and grease program, and other programs throughout the city. Education is the key to compliance with all programs.

(1.06) Permanent Stormwater Signage

City staff will work to place permanent stormwater signage in locations of regional detention ponds as well private detention ponds and riparian areas letting the public know that these areas are very important to the overall health of the environment and the health of our waterways.

(1.07) Social Media Posts

City staff will post on our social media platform quarterly with posts that provide information concerning stormwater, protecting our waterways, and various other season related topics, such as yard waste, pet waste, fats, oils and grease.



B. MCM 2 – Public Involvement and Participation

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.1 (Appendix C) for the Public Involvement and Participation.

Goals and Objectives

The City of Killeen has identified the following problems to be community wide issues:

- Littering around major shopping complexes and other retail businesses.

Litter and debris make public places visually unpleasant. Moreover, during rain events, litter and debris can pollute the water bodies and cause flooding by clogging storm drain structures. The City currently has a variety of programs such as the Pick a Park, and Stream Clean to help address these issues and educate the residents on how to reduce the pollutants to the MEP.

(2.01) *Storm Drain Inlet Markers*

The City is planning to replace the existing acrylic storm drain inlet markers with more sustainable aluminum ones. The City would like to mark 15% of all inlets for a given area to educate the public on the importance of protecting the MS4.

(2.02) *Stream Clean up*

City staff will evaluate the most effected and appropriate creeks and streams throughout the City that are in need of cleaning. The materials collected will be counted as bags of trash. City staff and the recreation department will collaborate to host the creek cleanup events designed to keep large items, floatables and debris, from entering the waterways. Cleanup events are an excellent activity to create local ownership of environmental resources, educating the public and preventing pollutants from entering local waterways.

(2.03) *Tree Planting*

The City's recreation department holds a tree planting event for the National Arbor Day in April and the Texas Arbor Day held in November. The events are open to the public to come out and help or they can purchase a tree and plant it as a memorial or in honor of someone. These events take place in our public parks and over areas of $\frac{1}{2}$ of an acre. When we have the ability to, we also try to handout seedlings to the public to take home and plant.

(2.04) *Water Quality Monitoring*

The city will participate in a watershed monitoring program. We currently have locations within the watershed that will be monitored for pollutants. Those locations have been approved and are located on the TCEQ GIS Data Hub site.

(2.05) *Educational Display/Booth*

City staff will Work with other departments to provide educational an booth at city sponsored events. Education to have citizens understand what pollutants are and how they get into the waters and the damaged caused by those pollutants is vital to the protection of our drinking water and aquatic wildlife and habitats.



(2.06) Community Involvement Projects

City staff will work with other city departments or outside volunteer organizations to:

- (1) Plan, or assist with planning, the event or activity;
- (2) Contribute supplies, materials, tools, or equipment;
- (3) Provide assistance from MS4 staff during the activity;
- (4) Provide assistance with recruiting volunteers for events;
- (5) Make a space available for projects, meetings, or events;
- (6) Advertisement for the events;
- (7) Provide or arrange disposal services;
- (8) Arrange land or stream access for activities or events;
- (9) Provide financial support; and
- (10) Provide donations of goods and services such as food.



C. MCM 3 – Illicit Discharge Detection and Elimination (IDDE)

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.3 (Appendix C,) for the Illicit Discharge Detection and Elimination requirements.

2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the IDDE MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals and responsible departments.

(3.01) Stormwater Quality Ordinance

City staff will review the existing ordinance to determine if any changes are necessary with regards to the updated permit. The existing ordinance contains a list of allowable non-stormwater discharges, a list of specific prohibited discharges and acts adversely affecting water quality, as well as requirements for notification of release and cleanup.

Chapter §32.20 of the City of Killeen’s Code of Ordinances prohibits the throwing of refuse, or illegal dumping, on public or private premises.

(3.02) Up-to-Date MS4 Map

The City will maintain and update the existing Geographic Information System (GIS) map which includes the location of all outfalls operated by the MS4 that discharge into Waters of the U.S. as well as the names and locations of all surface waters receiving discharge.

(3.03) Staff IDDE Training

The City will develop a web-based training program to train those staff positions with the potential to spot possible illicit discharges. The training will include materials to help identify possible discharges and information on what to do when a suspected discharge has been identified. Departments that spend most of their time in the field will be the target audience, with the rest of staff being trained on all faucets of stormwater.

(3.04) Procedures for Tracking Sources of Illicit Discharge

The City will continue to administer the Stormwater Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

The city at a minimum, will implement the following:

A. 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 discharge as soon as practicable.

(i) All permittees shall prioritize the investigation of discharges based on their relative risk of pollution. For example, sanitary sewage may be considered a high priority discharge.

(ii) All permittees shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment.



(iii) All permittees shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.

B. 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.

C. Corrective Action to Eliminate Illicit Discharge – If and when the source of the illicit discharge has been determined, all permittees shall immediately notify the responsible party of the problem and shall require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.

(3.05) Corrective Action to Eliminate Illicit Discharges and Illegal Dumping

The City will continue to administer the Stormwater Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

A. For 100% of illicit discharges or illegal dumping where a source has been determined, notify the responsible part of the problem within 24 hours.

B. Require responsible party to perform all necessary corrective actions to eliminate the illicit discharge.

(3.06) Develop and Maintain Procedures for Responding to and Removing Illicit Discharges, Illegal Dumping and Spills

The City will continue to administer the Environmental Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

A. Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.

The City will develop and maintain procedures for the removal of illicit discharges and illegal dumping. These procedures will be reviewed as needed in order to ensure they are up to date and are accurate.

(3.07) Develop and Maintain Procedures Identifying Priority Areas

The City will continue to administer the Environmental Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

A. Permittees who operate Level 4 small MS4s shall identify priority areas likely to have illicit discharges or illegal dumping, shall document the basis for the selection of each priority area, and shall create a list of all priority areas identified. This priority area list must be available for review by the TCEQ.

(3.08) Potential Problem Areas

The city will develop a list of identified problem areas, as well as prioritizing the areas for increased inspections. This list will be compiled with the assistance of other city departments within the city so we can have input from other departments that are in other areas of the city. The list will be reviewed and updated yearly as necessary.



(3.09) High Priority Facility and Multi-sector General Permit (Industrial) Program

Through this program, the City will prepare a list of all industrial locations throughout the City and will locate outfalls within the vicinity of those businesses and will perform dry weather monitoring within the drainage areas.

Develop and maintain a list of 100% of the priority areas identified by the small MS4 operator each year. At a minimum, small MS4 operators must consider the following in developing the priority areas:

- Sanitary sewer lines
- Industrial areas
- Commercial areas
- Areas with history of past illicit discharges or illegal dumping

Review and update the list at least one time annually to include new, removed, or changed areas based on the criteria established by the small MS4 for identifying priority areas.

(3.10) Develop Procedures for Source Investigation and Elimination of Illicit Discharge and Illegal Dumping

The City will continue to administer the Stormwater Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

- A. Respond to 100% of known illicit discharges and illegal dumping incidents each year to investigate sources.
- B. Each year, respond to 100% of high priority discharges each year, such as sanitary sewer discharges within 24 hours.
- C. Notify TCEQ immediately of 100% of illicit flows believed to be an immediate threat to human health or the environment throughout the permit term.

(3.11) Public Reporting Regarding Illicit Discharges and Spills

The City will continue to administer the Environmental Hotline and implement the tracking procedures to respond to public complaints regarding illicit discharges and spills. Investigations shall be conducted in a reasonable amount of time, based on the information collected.

- A. All permittees shall publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4. The permittee shall provide a central contact point to receive reports; for example, by including a telephone number for complaints and spill reporting.
- B. Inspections – The permittee shall conduct inspections, in response to complaints, and shall conduct follow-up inspections to complaints, and shall conduct follow-up inspections to ensure that corrective measures have been implemented by the responsible party. The permittee shall develop written procedures describing the basis for conducting inspections in response to complaints and conducting follow-up inspections.
- C. Maintain a minimum of one reporting mechanism 100% of the time during permit term.
- D. Publicize the public reporting mechanism a minimum of two times annually in a method designed to reach at least 75% of the intended audience.



- E. In addition, if the MS4 operator has a public website, the public reporting mechanism must be publicized on the public website 100% of the time during the permit term.

(3.12) Track Illicit Discharge Complaints and Investigations

The City adapt the Field Investigation Guide (FIG) developed by the NCTCOG as a guide to illicit discharge investigations and inspections. Once the discharge has been confirmed as illicit, and the source identified, the City will take the appropriate steps necessary to eliminate the discharge, including follow-up inspections. These steps are detailed in the Stormwater Quality Protection Ordinance. The City currently uses a digital tracking system for tracking complaints, investigations and cleanup of potential illicit discharges.

When staff have traced a suspected illicit discharge to the edge of our City limits, we will make all efforts to notify the adjacent MS4 and assist them to the best of our abilities in continuing to trace and verify the suspected discharge. Consequently, when staff have been notified by an adjacent community that they have traced a suspected discharge to their limits and it appears the source is located within our City, we will work with them to identify the source and eliminate the illicit discharge. This would include reinspection's after the removal of the discharges or dumping. Verify we are going to use the guide

(3.13) Track Illegal Dumping Complaints and Investigations

The City will continue to maintain and update, as needed, the GIS layer of potential problem areas including areas where sanitary sewer is not available and properties are on septic systems, areas with a density of industrial uses, and areas with a history of illegal dumping.

- A. List 100% of illegal dumping and enforcement actions.

(3.14) Dry Weather Field Screening

The city will continue to maintain and update, as needed, the GIS layer of all outfalls. Dry weather screening will be conducted during the dry months of the year in order to identify any illicit discharges throughout the city including priority areas. By the end of the permit term, all of the priority areas, although not necessarily all individual outfalls will be screened.

- A. Complete screening of 100% of outfalls.
- B. Field Observation Requirements – The permittee shall develop written procedures of observing flows from outfalls when there has been at least 72 hours of dry weather. The written procedures must include the basis used to determine which outfalls will be observed. The permittee shall record visual observations such as odor, color, clarity, floatables, deposits or stains.
- C. Field Screening Requirements – The permittee shall develop written procedures to determine which dry weather flows will be screened, based on the result of field observations or complaint from the public or the permittee's trained field staff. At a minimum, when visual observations indicate a potential problem such as discolored flows, foam, surface sheen, and other similar indicators of contamination, the permittee shall conduct a field screen analysis for selected indicator pollutants. The basis for selecting the indicator pollutants, must be described in the written procedures. Screening methodology may be modified based on experience gained during actual field screening activities. The permittee shall document the method used.



(3.15) Reduction in Floatables

This program consists of the identifying technology and BMPs for removal of floatables. Developing and implementation of source controls. Development and implementation of structural controls. Annual maintenance of controls, the collection of materials along with the materials removed from the structural controls. Maintenance schedule for controls no less than two (2) times per year.

- A. Identify Technological Advancements and BMPs for removal of floatables. Install device(s) and track trash removal yearly.
- B. Develop and implement at least two (2) source controls each year to address floatables such as, but not limited to, establishing and maintaining waste collection sites, cleanup events, and anti-littering campaigns.
- C. Develop and implement at least two (2) structural controls each year such as, but not limited to, inlet protection, boom sites, hazardous materials traps, trash racks, outfall netting and catch basins.
- D. Annually maintain at least two (2) locations where floatable material can be removed before the stormwater is discharged to or from the small MS4. These locations may be the same as the areas where source controls and structural controls are implemented.
- E. Floatable material shall be collected at the frequency necessary for maintenance of the removal devices, but not less than two (2) times per year.

(3.16) Household Hazardous Waste Collections (HHW)

The city will continue with the current HHW program, for residents to drop off HHW at the City's Environmental Collection Center on specific dates during the year. Record the weight of materials collected, the amount recycled, and the amount sent off for disposal, and participation of Killeen residents and other communities utilizing the facility.

This program consists of offering household hazardous waste collections for the city's residents. This program assists in the illegal dumping of these products into the MS4.

- A. Promote and host 1 HHW event each year.
- B. Provide a summary of items collected during HHW collection.
- C. Provide quantities of recyclables collected on a yearly basis.

(3.17) Sanitary Sewer Overflow (SSO) Program (BMP Targeting Bacteria Impairment)

This program consists of inspecting sewer lines where repetitive overflows have occurred, performing increased maintenance on problems lines, identifying line segments for replacement through Capital Improvement Projects (CIP), or parallel sewer lines, and other measures designed to reduce the number of overflows.

Through this program, all public lift stations in the City are inspected on an weekly basis by the Water and Sewer Department. In addition, as lift station pumps have come up for replacement or significant repairs, the pumps have been replaced with those that offer remote notification of failures, stoppages, or blockages to facilitate a response before a significant failure occurs.



- A. Provide the number of sewer lines cleaned (in feet cleaned) yearly.
- B. Provide a number of sewer lines videoed (in feet cleaned) yearly

FOG Program

Under this program, all commercial grease traps are inspected by the Water and Sewer (FOG) Department periodically, including businesses with other types of discharges into the public sewer system.

Septic Program

The City currently relies on Bell County Public Health Department to review, inspect installation and provide assistance on failing septic systems. The City in recent years has identified and removed properties with septic systems within the City limits.

Animal Sources

The city will ensure all businesses that have a concentration of animals, has controls and any permits necessary as required under the Texas Pollutant Discharge Elimination System. At a minimum those locations will ensure that all animal waste is not discharged into any waterbodies using structural or non-structural controls.

(3.17) Eliminating Sanitary Sewer Overflows

The City will continue to keep track of all sewer lines that are being cleaned, and inspected with the use of cameras, and will continue to track any sanitary sewer overflow. Also, public education will play a roll in this BMP, the creation of educational materials and distribution of those materials will be accounted for in public outreach.



D. MCM 4 – Construction Site Stormwater Runoff Control

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.4 (Appendix C) for the Construction Site Stormwater Runoff Control requirements.

2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the Construction Site Stormwater Runoff Control MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals and responsible departments.

(4.01) Annual Builders/Developers Workshop

The City staff will coordinate an annual builders/developers workshop to discuss topics such as current Construction General Permit (CGP) updates/requirements, current best management practices, preparing a Stormwater Pollution Prevention Plan (SWPPP), submittals required by the city and stormwater management site plans and maintenance easement covenant agreement requirements and other information about stormwater protection during construction.

(4.02) Construction Ordinance and Stormwater Management Site Plan

The existing Construction Erosion and Sediment Control Ordinance require the submittal of an erosion control plan (ECP) to be reviewed and approved as part of the permit review on all regulated construction projects. In addition, the City requires the installation, inspection and maintenance of erosion and sediment controls, litter control, areas of spills and leaks, concrete waste management, and sanitary waste management for all land disturbance sites, regardless of size, and residential sites that disturb more than one acre or are part of a larger common plan of development that disturbs more than one acre.

(4.03) Stormwater Pollution Prevention Plan Review

The City currently requires SWP3s to be developed for all commercial and industrial construction projects over one acre. In addition, all residential subdivision developments are required to submit an SWP3 when these projects typically disturb more than 1 acre or are parts of a larger common plan of development that will disturb more than 1 acre. These plans are reviewed for use of appropriate BMPs on the site to reduce the potential for polluted runoff from construction sites during the active phase of construction. The current City plan review policy also requires a copy of the NOI or Construction Site Notice submitted to the City prior to permit approval. The City will continue to review SWP3s using the existing procedure and checklist.

(4.04) Inspection and Enforcement Program

The City will continue to perform inspections of regulated construction sites during the active construction phase. Construction site operators will be required to correct any deficiencies in best management practices in accordance with the City Ordinance. The inspector will provide a copy of the inspection report to the construction site operator. The City will also review and revise the existing inspection and enforcement program as needed. All construction site discharges are required to comply with the Stormwater Quality Protection Ordinance regardless of size of disturbed area. This will include procedures for documentation and maintenance of



records.

- A. Inspections must be conducted on active sites, Determine Coverage and if required notify need for coverage,
- B. Conduct inspections, determine if controls are selected, installed, implemented and maintained,
- C. Assess compliance with ordinances and other regulations,
- D. Provide written or electronic report; based on findings, conduct follow-up inspections,
- E. Conduct inspections at 80% of active construction sites the first year; 100% of follow up inspections,
- F. Conduct inspections at 100% of active construction sites every year after; including 100% of follow-up inspections.

(4.05) Public Reporting Regarding Construction Sites

The City will continue to administer the Environmental Hotline and implement the tracking procedures to respond to public complaints regarding construction site runoff. Investigations shall be conducted in accordance with the Inspection and Enforcement Program BMP (BMP 4.04).

(4.06) MS4 Staff Training Program

The City will develop a web-based training program to train staff whose primary job duties include permitting, construction site inspections, and enforcement on the City's erosion and sediment control requirements. The staff will also receive outside training from annual conferences.

(4.07) Construction Site Inventory

The City will continue to maintain and update, as needed, a list of active construction projects. The list includes information about the projects such as contact information of the site supervisor.

(4.08) Review Permits

The City will continue to maintain and update, a list of active land disturbance and right of way projects. The list includes information about the projects such as contact information of the site supervisor.

(4.09) Track Building Permits Issued

The City will continue to maintain and update, a list of vertical construction projects. The list includes information about the projects such as the builder's information the site address and the subdivision name.

(4.10) City Construction Projects

The City will maintain a list for projects, including the number of projects, inspections, flood controls projects, and impact assessments of receiving waters for flood control projects.



E. MCM 5 – Post-Construction Stormwater Management in New Development & Redevelopment

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.5 ([Appendix C](#)) for the Post-Construction Stormwater Management in New Development and Redevelopment requirements.

2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the Post-Construction Stormwater Management in New Development and Redevelopment MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals and responsible departments.

(5.01) Stormwater Management Design Manual and Ordinances

The City will continue to review developments for compliance with the City's Stormwater Management Design Manual which includes post-construction BMP regulations for new development and redevelopment projects, as well as long term operation and maintenance (O&M) requirements for BMPs. The City currently has a tracking spreadsheet of all post-construction stormwater control measures installed within the City which includes the basin area treated by these post-construction BMPs. New measures are added to the spreadsheet as they are constructed. The City will document and maintain records of enforcement actions related to post-construction stormwater management.

The City also requires new developments to submit a Stormwater Management Site Plan, which offers BMP credits for Post Construction stormwater management. Post construction stormwater management has a variety of BMPs that can be used for credits. Those BMPs consist of various detention ponds, creek buffer zones, riparian buffer zones, xeriscape, urban forestry, inlet skimmers and gutters with downspouts. (See MCM 5-5.02)

The city will submit a notice of change should there be any significant changes to warrant a notice of change.

(5.02) Stormwater Management Site Plans (SWMSP)

The City will continue to review the stormwater management site plans, inspect construction sites that are addressed by the SWMSP to ensure that the adherence to the plan is maintained. The City will document and maintain records of inspection and enforcement actions related to post-construction stormwater management.

- A. List 100% of SWMSP received
- B. Inspect 100% of all SWMSP,
- C. List 100% of all SWMSP non-compliance.

(5.03) Post Construction Inspections of Maintenance, Easement, Covenant Agreements (MECA)

The City will continue to receive the MECA agreements that have been executed and recorded with the county, as a binding agreement with the site owner to maintain the post construction BMPs. All inspections will be recorded as well as non-compliance and any enforcement.



(5.04) Long Term Operations and Maintenance of Post Construction BMPs

The City will continue to maintain all permanent BMPS dedicated to the city on a yearly basis. All public and private post construction BMPs will listed and the maintenance schedule will be updated yearly.

(5.05) Water Quality CIP Projects

Water quality projects are important to city and the quality of our receiving waterbodies. The city will list all CIP projects throughout the year and will provide a list of projects to our GIS department to include on the city's map.



F. MCM 6 – Pollution Prevention and Good Housekeeping for Municipal Operations

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.6 ([Appendix B](#)) for the Pollution Prevention and Good Housekeeping for Municipal Operations requirements.

2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the Pollution Prevention/Good Housekeeping for Municipal Operations MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals and responsible departments.

Note: Waste materials removed from the City are disposed of in accordance with Texas Administrative Code (TAC) Title 30 Chapters 330 or 335.

(6.01) *Pollution Prevention Training for Municipal O&M Staff*

The City uses a series of training modules and videos directed at pollution prevention for municipal activities, which was developed by Excal Visual as training materials for City staff. Other materials developed by the City or other sources may supplement the modules and videos, including a web-based training program.

The training will also include information on hazardous materials storage and disposal.

(6.02) *Pollution Prevention Training for Municipal O&M Staff*

The City will ensure that all contractor hired by the city will be contractually required to comply with all stormwater controls measures, good housekeeping practices, and facility specific stormwater management operating procedures.

The City will provide oversight of the contractors activities to ensure contractors are using appropriate controls and SOPs will be reviewed each year.

Oversight procedures must be maintained on the site 100% of the time and made available to TCEQ at any time for review.

(6.03) *Pollution Prevention Practices for Municipal O&M Activities*

The City will continue to implement the existing standard operating procedures (SOPs), good housekeeping practices or other stormwater control measures to prevent or reduce stormwater pollution from municipal O&M activities. The City will train the staff whose job duties are related to conducting municipal O&M activities to ensure that they are aware of the City' existing SOPs.

(6.04) *Structural Control Inventory and Maintenance*

The City will continue to maintain a permittee owned structural controls list along. There will be a yearly review and update of inventory to address changes.

A. List all permittee-owned structural controls;

B. Review and update inventory annually to address changes.

The City will perform maintenance on proprietary structural control measures as recommended by the manufacturer. For other non-proprietary control measures, the City will develop an inspection and maintenance program to ensure continued function.



(6.05) Assess Permittee Owned Operations

The City will continue to evaluate operations and maintenance activities for potential discharges of pollutants. Based on the assessment high priority facilities for potential discharge of stormwater pollutants. Identify the amount of pollutants stored at the site, identify improperly stored materials, activities that must be performed outside, proximity to waterbodies, poor housekeeping practices, and discharge of potential pollutants of concern discharging to impaired waters.

Assessment results and maintain copies of all evaluation checklists used to conduct assessments, must include initial assessment, and any identified deficiencies and corrective actions taken.

(6.06) Permittee Owned Facilities Inventory, and Inspections

The City will Identify pollutants of concern that could be discharged from operations and maintenance activities, and maintain list. Through this program, the City will prepare a list of all industrial locations, including all city owned facilities, throughout the City and will locate outfalls within the vicinity of those businesses and will perform dry weather monitoring within the drainage areas.

The inventory will include all permit numbers and authorizations for all facilities and controls.

- A. At least once time annually, visually inspect 100% of pollution prevention measures implemented at permittee owned facilities to ensure they work properly.
- B. Develop and maintain written procedures that describe the frequency of inspections and how they will be conducted.
- C. Review and update the inspection procedures at least one time annually to address changes or additions to the pollution prevention measures.
- D. Maintain a log of 100% of the inspections conducted annually and make the log available for review by TCEQ within 24 hours of a request.

The inventory list will include, if applicable:

- a. Composting facilities,
- b. Equipment storage and maintenance facilities,
- c. Fuel storage facilities,
- d. Hazardous waste disposal facilities,
- e. Hazardous waste handling and transfer stations,
- f. Incinerators,
- g. Landfills,
- h. Materials storage yards,
- i. Pesticide storage facilities,
- j. Buildings, including schools, libraries, police stations, fire station, and office building,
- k. Parking lots,
- l. Golf courses,
- m. Swimming pools,



- n. Public works yards,
- o. Recycling facilities,
- p. Salt storage facilities,
- q. Solid waste handling and transfer facilities,
- r. Street repair and maintenance sites,
- s. Vehicle storage and maintenance yards,
- t. Structural stormwater controls.

(6.07) Develop Facility Specific Procedures

The City will facility develop a SOP that identifies BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in stormwater. A hard or electronic copy of the facility specific stormwater management SOP must be maintained and available for review by TCEQ and must be kept onsite and updated a necessary.

The City will manage any vehicle leaks, properly dispose of any recycled fluids, maintain vehicle washing and fueling areas and any used oil collections areas.

(6.08) Pollution Prevention Measures

City will Develop written procedures that describe frequency of inspections and how they will be inspected. Maintain a log of inspections. Implement 2 of the following 4 measures;

- Replace at least 50% of the MS4's materials and chemicals with more environmentally friendly materials or methods by the end of the permit term;
- Track 100% of the application of deicing and anti-icing compounds in the MS4 area and record the amount of compound used for each application annually;
- Use suspended tarps, booms, or vacuums to capture paint, solvents, rust, paint chips and other pollutants during 80% of regular bridge maintenance each year; and
- Place barriers around or conduct runoff away from 100% of deicing chemical storage areas to prevent discharge into surface waters each year.

(6.09) Stormwater Controls for High Priority Facility Program

The City will to monitor material with potential to contribute to stormwater pollution must be sheltered from exposure to stormwater. Ensure to the maximum extent practicable that stormwater runoff from storage piles of salt and other de-icing and anti-icing material is not discharged; shall ensure that any discharges from the piles are authorized under a separate discharge permit. Develop SOP that addresses spill prevention and spill control at permittee owned and operated fueling, vehicle maintenance, and bulk fuel delivery facilities.

(6.10) Storm Sewer System Operations and Maintenance

The city will develop and implement an operations and maintenance program to reduce to the maximum extent practicable the collection of pollutants in catch basins and other surface drainage structures each year. Develop a list of potential problem areas. The permittee shall identify and prioritize problem areas for increased inspections.

City will inspect 100% of city owned and operated detention basins, and 100% of city owned and operated stormwater inlets.

The city will inspect and clean 100% of city owned and operated drainage system.



(6.11) *Household Hazardous Waste Collection Program (HHW)*

The city will continue with the current HHW program, for residents to drop off HHW at the City's Environmental Collection Center on specific dates during the year. Record the weight of materials collected, the amount recycled, and the amount sent off for disposal, and participation of Killeen residents and other communities utilizing the facility.

(6.12) *Street Sweeping and Catch Basin Cleaning*

The City will perform periodic street sweeping of major thoroughfares and residential streets to reduce pollutants entering the storm sewer system. Additionally, blocked catch basins can build up leaves, store water and present other conditions favorable to bacteria growth and development. As the City becomes aware of a blocked catch basin, it will be cleaned in a timely manner. 100% of waste will be collected and disposed of in accordance with 30 TAC 330 and 335.

(6.13) *Street Sweeping Implementation Schedules and Disposal of Waste Materials*

The city will continue a sweeping program and will develop a schedule and frequency as to which areas will be addressed and how many times a year.

- A. Determine a program that will address at a minimum of 75% of the areas in the program annually.
- B. Street infeasible for sweeping, will implement litter and trash control procedures or provide inlet protection measures.
- C. Collect and dispose of sweeper material waste without reentry into the MS4.

City will ensure that 100% of waste from the MS4 is disposed of in accordance with 30 TAC 330 and 335.

(6.14) *Non-Chemical Solutions for Open Space*

Maintenance activities for the turf landscaped portions of these areas may include mowing, fertilization, pesticide application, and irrigation. Typical pollutants include sediment, nutrients, hydrocarbons, pesticides, herbicides, and organic debris.

B. The permittee shall implement the following practices to minimize landscaping-related pollutant generation with regard to public spaces owned and operated by the permittee:

- (i) Educational activities, permits, certifications, and other measures for the permittee's applicators and distributors;
- (ii) Pest management measures that encourage non-chemical solutions where feasible.

Examples may include:

- (a) Use of native plants or xeriscaping;
- (b) Keeping clippings and leaves out the small MS4 and the street by implementing mulching, composting, or landfilling;
- (c) Limiting application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions; and
- (d) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing motorist safety.

C. The permittee shall develop schedules for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and expected precipitation; and

D. The permittee shall ensure collection and proper disposal of the permittee's unused



pesticides, herbicides, and fertilizers.

(6.15) Pesticide, Herbicide and Fertilizer Applicator and Distributor Measures

The city will ensure that following for applicator and distributor.

A. Require 100% of pesticide, herbicide, and fertilizer applicators and distributors working in the public spaces owned and operated by the permittee, including contract workers, to demonstrate at least one of the following each year:

- Training in application or distribution
- Permit to apply or distribute
- Certification for application or distribution

(6.16) Landscape Maintenance and Schedules for Chemical Application

The city will ensure that following for landscape maintenance. The City will, if it has not already, develop a schedule for the application of chemicals to all public spaces.

A. Evaluate at least one time each year the materials used, and activities performed on 100% of the public spaces owned and operated by the permittee for pollution prevention opportunities such as:

- parks,
- schools,
- golf courses,
- easements,
- public rights of way, and
- other open spaces.

(6.17) Non-Chemical Solutions Replacing Pesticide, Herbicide and Fertilizer

The city will address non-chemical solutions as permissible.

A. Utilize at least one of the following non-chemical solutions each year in 100% of the public spaces owned and operated by the permittee:

- Use of native plants or xeriscaping in 10% of each public space's landscaping area;
- Keep clippings and leaves out the small MS4 and the street by implementing mulching, composting, or landfilling;
- Limit application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions; or
- Reduce mowing of grass frequency to allow for greater pollutant removal, but not jeopardizing motorist safety.

If it is not feasible for the small MS4 operator to implement at least one of these measures in one or more public spaces owned and operated by the permittee, written documentation of the reason must be maintained and made available to the TCEQ upon request.

(6.18) Schedules for Chemical Application

The city will look into the current scheduling of chemical application and will review to ensure that we are following the permits recommendations.

A. Develop and implement chemical application schedules for use in 100% of applicable public spaces owned and operated by the permittee each year. Schedules must minimize the discharge of pollutants from the chemical application due to irrigation and expected precipitation.



(6.19) *Evaluation of Flood Control Projects*

The permittee shall assess the impacts of the receiving water(s) for all flood control projects. New flood control structures must be designed, constructed, and maintained to provide erosion prevention and pollutant removal from stormwater. The retrofitting of existing structural flood control devices to provide additional pollutant removal from stormwater shall be implemented to the MEP.



G. MCM 7 – Industrial Sources

1. TCEQ Permit Requirements

Refer to the MS4 General Permit, Part IV.D.7 (Appendix B) for the Industrial Sources.

2. Best Management Practices

The City of Killeen has selected the following BMPs to fulfill the requirements of the Authorization for Construction Activities where the Small MS4 is the Site Operator MCM. Refer to Section IV of this document for the implementation schedule which includes measurable goals and responsible departments.

(7.01) Industrial Facilities

Identify and control pollutants in stormwater discharges to the small MS4 from 100% of the permittee's landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4.

(7.02) Industrial Inspections

Inspect 100% of small MS4 owned and operated facilities described by Part IV.D.7.(a) at least one time annually.

Inspect 100% of industrial facilities permitted under the TPDES MSGP, TXR050000 and located within the small MS4 area at least one time annually.

(7.03) Develop SOPs for Industrial Inspections

Develop and implement SOPs for 100% of inspections of facilities as described by Part IV.D.7.(b) and industrial facilities permitted under the TPDES MSGP, TXR050000 and within the small MS4 area.

Review and update the facility inspection SOPs at least one time annually to address changes or additions.

(7.04) Update and Review Municipal Ordinance

Review and update municipal ordinance as needed and submit a NOC if updates require it.



IV. Implementation Schedule

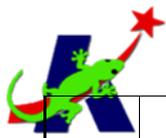
No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 1 - Public Education										
1.01	General Education on Stormwater	Stormwater, Water & Sewer, Solid Waste, Parks,	Residents, Businesses, Industrial facilities, Students, Construction community,	A. Develop and update brochures to address: Yard Waste, Fertilizers and pesticides, Litter, trash containment, Dumping of solid waste, Illegal disposal of HHW, Pet waste, Septic systems, Swimming pool discharge, De-icing, rock salt usage/storage, Oil, grease, fluids from vehicles, Sediment runoff from construction, Unauthorized discharge from restaurant waste, vehicle washing, washwater/grey water.						
				B. Handout out 1000 brochures yearly overall	1000					
1.02	Utility Bill Insert	Stormwater – FOG - Communication	Residents	A. Provide 2 water bill inserts per year, reaching 75% of the community.	100% of residents					
1.03	Storm Drain Marking Campaign	Stormwater, Mowing & Drainage, Engineering	Residents, Businesses, Industrial facilities, Students, Construction community,	A. Develop a storm drain marking campaign to let residents and businesses the importance of storm drain. B. Create a storm drain marking brochure C. Recruit volunteers to assist with the replacement of existing markers as necessary/placement of new markers in other areas of the city.						
1.04	Stormwater Website	Stormwater	Residents	A. Update the City's Stormwater webpage at least once per year. Ensure all links and information is up to date.	1 X per year					
1.05	Stormwater Education at Special Events	Stormwater	Residents, Visitors	A. Attend public events throughout the year and distribute stormwater educational materials to event attendees. Report a summary of the items purchased for the events and total estimated attendance.						
1.06	Permanent stormwater related signage	Stormwater, Parks	Residents, Businesses	A. Get a list of parks that have Pet Waste Stations installed B. Replace any broken or stolen stations each year						
1.07	Social Media Posts	Stormwater	Residents	A. Update the City's Stormwater webpage at least once per year. Ensure all links and information is up to date.						



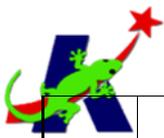
No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 2 – Public Participation and Outreach										
2.01	Storm Drain Inlet Markers	Stormwater – Mowing & Drainage	Residents, Volunteers	A. Replace existing acrylic markers with aluminum markers annually.	100					
				B. Install inlet markers in new developments	400					
2.02	Stream Clean up	Stormwater, Recreation,	Volunteers, Residents	A. Host/participate in a stream clean up	2					
2.03	Tree planting;	Recreation, Stormwater,	Residents, Clubs, Community Groups	A. Host at a minimum two (2) events annually. <ul style="list-style-type: none"> To be considered an event, the project must be a minimum of 0.5 acres or 25 yards. An event may take place in streams, parks, areas adjacent to public waterways, or other green space. 	2					
2.04	Volunteer Water Quality Monitoring	Stormwater	Residents, Clubs, Community Groups	A. Host 1 water quality monitoring event a year	1					
2.05	Educational Display Booth at School/Public Event	Stormwater	Schools	A. Attend 1 school /educational event	1					
2.06	Community Involvement Projects	Stormwater Division, Recreation Department, Centex Sustainable Partnership	Residents, Businesses,	(1) Plan, or assist with planning, the event or activity; (2) Contribute supplies, materials, tools, or equipment; (3) Provide assistance from MS4 staff during the activity; (4) Provide assistance with recruiting volunteers for events; (5) Make a space available for projects, meetings, or events; (6) Advertisement for the events; (7) Provide or arrange disposal services; (8) Arrange land or stream access for activities or events; (9) Provide financial support; and (10) Provide donations of goods and services such as food	2					



No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals		
						Year 1	
						Jan. 2024 – Dec. 2024	Jan. 2025
MCM 3 - Illicit Discharge Detection and Elimination (IDDE)							
3.01	Stormwater Quality Ordinance	Stormwater Engineering		A. Review and update ordinance as necessary and submit NOC should changes occur.			
3.02	Update MS4 Map	Stormwater		A. The location of all small MS4 outfalls that are operated by the permittee and that discharge into waters of the U.S.;			
				B. The location and name of all surface waters receiving discharges from the small MS4 outfalls; and			
				C. Priority areas identified under Part III.B.3.(e)(1), if applicable			
				D. Inventory and map all city owned facilities. (Parking lots, buildings)			
3.03	Staff IDDE Training			A. All permittees shall implement a method for informing or training all the permittee’s field staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small MS4 as part of their normal job responsibilities. Training program materials and attendance lists must be maintained on site and made available for review by the TCEQ.			
3.04	Procedures for Tracking Sources of Illicit Discharge			A.. 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 discharge as soon as practicable. (i) All permittees shall prioritize the investigation of discharges based on their relative risk of pollution. For example, sanitary sewage may be considered a high priority discharge. (ii) All permittees shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human			



				<p>health or the environment.</p> <p>(iii) All permittees shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.</p> <p>B. 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</p> <p>C. Corrective Action to Eliminate Illicit Discharge If and when the source of the illicit discharge has been determined, all permittees shall immediately notify the responsible party of the problem and shall require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.</p>			
3.05	Corrective Action to Eliminate Illicit Discharges and Illegal Dumping			<p>A. For 100% of illicit discharges or illegal dumping where a source has been determined, notify the responsible party of the problem within 24 hours.</p> <p>B. Require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.</p>			
3.06	Develop and Maintain Procedures for Responding to Illicit Discharges, Illegal Dumping, and Spills			<p>A. Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.</p>			
3.07	Develop and Maintain Procedures Identifying Priority Areas			<p>A. Permittees who operate Level 4 small MS4s shall identify priority areas likely to have illicit discharges or illegal dumping, shall document the basis for the selection of each priority area, and shall create a list of all priority areas identified. This priority area list must be available for review by the TCEQ.</p>			
3.08	Potential Problem Areas			<p>A. The city will develop a list of identified problem areas, as well as prioritizing the areas for increased inspections. The list will be reviewed and updated</p>			



				yearly as necessary.			
3.09	High Priority and Multi-sector General Permit (Industrial) Program			<p>A. Through this program, the City will prepare a list of all industrial locations throughout the City and will locate outfalls within the vicinity of those businesses and will perform dry weather monitoring within the drainage areas.</p> <p>B. Develop and maintain a list of 100% of the priority areas identified by the small MS4 operator each year. At a minimum, small MS4 operators must consider the following in developing the priority areas:</p> <ul style="list-style-type: none"> • Sanitary sewer lines • Industrial areas • Commercial areas • Areas with history of past illicit discharges or illegal dumping <p>C. Review and update the list at least one time annually to include new, removed, or changed areas based on the criteria established by the small MS4 for identifying priority areas.</p>			
3.10	Develop Procedures for Source Investigation and Elimination of Illicit Discharges and Illegal Dumping			<p>A. Respond to 100% of known illicit discharges and illegal dumping incidents each year to investigate sources (or some Level 2b MS4s must notify the appropriate agency with the authority to act).</p> <p>B. Each year, respond to 100% of high priority discharges each year, such as sanitary sewer discharges within 24 hours (or some Level 2b MS4s must notify the appropriate agency with the authority to act).</p> <p>C. For 100% of known illicit discharges or illegal dumping incidents where the small MS4 does not have jurisdiction, notify the adjacent MS4 operator or the applicable TCEQ regional office each year.</p> <p>D. Notify TCEQ immediately of 100% of illicit flows believed to be an immediate threat to human health or the environment throughout the permit term.</p>			



3.11	Public Reporting of Illicit Discharges and Spills			<p>A. Inspections –The permittee shall conduct inspections, in response to complaints, and shall conduct follow-up inspections to ensure that corrective measures have been implemented by the responsible party. The permittee shall develop written procedures describing the basis for conducting inspections in response to complaints and conducting follow-up inspections.</p> <p>B. Maintain a minimum of one public reporting mechanism 100% of the time during the permit term.</p> <p>C. Publicize the public reporting mechanism a minimum of two times annually in a method designed to reach at least 75% of the intended audience.</p> <p>D. In addition, if the MS4 operator has a public website, the public reporting mechanism must be publicized on the public website 100% of the time during the permit term.</p>			
3.12	Track Illicit Discharge Complaint & Investigations Procedures			A. Update annually as needed			
3.13	Track Illegal Dumping Complaints & Investigations			A. List of 100% of illegal dumping & investigations			
3.14	Dry Weather Field Screening			A. Complete screening of 100% of outfalls.			
3.15	Reduction of Floatables			A. Develop and implement at least two source controls each year to address floatables, such as, but not limited to establishing and maintaining waste collection sites, cleanup events, and anti-littering campaigns.			
				B. Develop and implement at least two structural controls each year such as, but not limited to, inlet protections, boom sites, hazardous materials traps, trash racks, outfall netting, and catch basins.			



				<p>C. Annually maintain at least two locations where floatable material can be removed before the stormwater is discharged to or from the small MS4. These locations may be the same as the areas where source controls and structural controls are implemented.</p> <p>D. Floatable material shall be collected at the frequency necessary for maintenance of the removal devices, but not less than two times per year.</p>			
3.16	Household Hazardous Waste Collections			<p>A. Promote and host 1 HHW event a year.</p> <p>B. Provide a summary of items collected during HHW collection.</p> <p>C. Provide quantities of recyclables collected on a yearly basis.</p>			
3.17	Eliminate Sanitary Sewer Overflows			<p>A. Provide the number of sewer lines clean (in feet cleaned) yearly.</p> <p>B. Provide a number of sewer lines videoed (in feet cleaned) yearly.</p> <p>C. Provide the number of SSOs</p> <p>D. Number of FOG inspections?</p> <p>E. Number of Animal sources in the city & inspected?</p>			
3.18	Animal Sources			<p>A. The city will maintain the existing pet waste stations in the parks, or will install a new one if there are no others in the park or green space.</p>			



No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 4 – Construction Site Stormwater Runoff Control										
4.01	Annual Builders/Developers Workshop	Stormwater, Engineering		A. Coordinate builders/developers workshop to discuss current Construction General Permit, updates/requirements, current best management practices, stormwater pollution prevention plans, submittals required by the city and stormwater management site plans and maintenance easement covenant agreement requirements.						
4.02	Construction Ordinance & SWMP Changes	Stormwater, Engineering		A. Review and update ordinance as needed, and submit NOC for any changes to the SWMP						
4.03	SWP3 Review	Engineering		A. Review 100% of all Stormwater Pollution Prevention Plans and Erosion (SWP3) and Sediment Control Plans (ECP) B. Provide the number of SWP3s and ECPs reviewed						
4.04	Inspections and Enforcement	Stormwater, Engineering		A. Conduct inspections at 80% of active construction sites the first year; 100% of follow up inspections						
				B. Conduct inspections at 100% of active construction sites every year after; including 100% of follow up inspections C. Track the number of inspections and follow up inspections D. Track the number of enforcement actions (stop work orders)						
4.05	Public Reporting Regarding Construction Sites	Engineering, Stormwater		A. Stormwater hotline will continue and implement tracking procedures to respond to public complaints regard construction site runoff. Investigations will be conducted in accordance with the inspection and enforcement program.						
4.06	MS4 Staff Training Program	Stormwater, All other Departments		A. Train all inspector on the Construction General Permit, and erosion control						
4.07	Construction Inventory	Stormwater and Engineering		A. Maintain a list of all construction sites						
4.08	Review Permits	Engineering & Building Permit		A. List and review all Land Disturbance Permits, and Right of Way Permits B. Track number of permits issued C. Number of Construction plans submitted						
4.09	Track Building Permits Issued	Building Inspections		A. Number of permits issued for vertical construction						
4.10	City Construction Projects	Engineering		A. Number of city construction projects B. Number of construction project inspections C. Number of flood control projects D. Number of impact assessments of receiving waters for flood control projects						



No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 5 – Post Construction Stormwater BMP										
5.01	Stormwater Management Design Manual and Ordinances	Engineering, Stormwater		A. Review and update ordinance as needed						
				B. Submit NOC to TCEQ if changes are required.						
5.02	Stormwater Site Management Plans	Engineering, Stormwater		A. List 100% of all SWMSP received						
				B. Inspect 100% of all SWSMP inspected						
				C. List 100% of all SWSMP non-Compliance						
5.03	Post Construction Inspections of MECA Agreements	Engineering, Stormwater		A. List 100% of all Maintenance, Easement, Covenant Agreements (MECA) executed and recorded with the County						
				B. List 100% of all MECA inspections						
				C. List 100% of all non-compliant inspection						
5.04	Long-term Operations and Maintenance of Post Construction BMPs	Engineering, Mowing & Drainage		A. List 100% of all public post construction BMPs						
				B. Update maintenance schedule of 100% of all public structural BMPs						
				C. Number of existing public post-BMPs inspected						
5.05	List of Water Quality CIP Projects	Engineering		A. List 100% of all CIP water quality projects						
				B. Provide 100% of CIP water quality projects to GIS						



No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 6 - Pollution Prevention and Good Housekeeping for Municipal Operations										
6.01	Stormwater Pollution Prevention Training & Hazardous Materials	Stormwater		A. Conduct a training for 100% of employees involved in implementing pollution prevention and good housekeeping practices. B. Number of Public Works Staff participating in hazardous materials storage and disposal training						
6.02	Contractor Requirements and Oversight	Fleet, Engineering, Airports, Public Works		A. Ensure that 100% of contractors hired by is contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures B. Provide oversight to 100% of contractor activities to ensure contractors are using appropriate controls and SOPs will be reviewed each year C. Oversight procedures must be maintained on site 100% of the time and made available for review by TCEQ						
6.03	Pollution Prevention Practices for Municipal Operations and Maintenance Activities			A. The City will continue to implement the existing standard operating procedures (SOPs), good housekeeping practices or other stormwater control measures to prevent or reduce stormwater pollution from municipal O&M activities. The City will train the staff whose job duties are related to conducting municipal O&M activities to ensure that they are aware of the City' existing SOPs.						
6.04	Structural Control Inventory and Maintenance	Stormwater		A. List all permittee-owned facilities and structural control; B. Review and update inventory annually to address changes C. Number of Stormwater Maintenance Work Orders completed (CityWorks) D. Number of linear feet of storm drain system E. Number of linear feet of storm drain system maintained	100%					
6.05	Assess Permittee Owned Facilities			A. Evaluate operations and maintenance activities for potential to discharge pollutants						
				B. Based on assessment to identify high priority facilities for potential discharge of stormwater pollutants. Identify the amount of pollutants stored at the site, identify improperly stored materials, activities that must be performed outside, proximity to waterbodies, poor housekeeping practices, and discharge of potential pollutants of concern						



				<p>discharging to impaired waters.</p> <p>C. Document of assessment results and maintain copies of all evaluation checklists used to conduct assessments, must include initial assessment, and any identified deficiencies and corrective actions taken.</p>						
6.06	Permittee Owned Facilities Inventory and Inspections			<p>A. Identify pollutants of concern that could be discharged from operations and maintenance activities and maintain list. The inventory list will include all facilities and controls with permit numbers and authorizations.</p> <p>B. At least once time annually, visually inspect 100% of pollution prevention measures implemented at permittee owned facilities to ensure they work properly.</p> <p>C. Develop and maintain written procedures that describe the frequency of inspections and how they will be conducted.</p> <p>D. Review and update the inspection procedures at least one time annually to address changes or additions to the pollution prevention measures.</p> <p>E. Maintain a log of 100% of the inspections conducted annually and make the log available for review by TCEQ within 24 hours of a request.</p>	Annually					
6.07		Fleet, Public Works, Airports, Parks & Recreation		<p>A. For each facility develop a SOP that identifies BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in stormwater.</p> <p>B. A hard or electronic copy of the facility specific stormwater management SOP must be maintained and available for review by TCEQ and must be kept onsite and updated a necessary.</p>						
6.07 A.	Develop Facility Specific Procedures	Fleet		A. Number of leaking vehicles detected						
				B. Are leaks documented quarterly						
				C. Number of gallons of automotive fluid disposed / recycled (oil - Antifreeze						
				D. Number of Oil Containment Inspections						
				E. Provide a copy of the inspection log						
				F. Provide copy of Annual UST Report						
		Fleet, Solid Waste		G. Date of oil/water separator maintenance						
	H. Volume of waste collected and disposed (wash bay)									
	I. 3 rd party service provider									
6.08	Pollution Prevention Measures			<p>A. Develop written procedures that describe frequency of inspections and how they will be inspected. Maintain a log of inspections.</p> <ul style="list-style-type: none"> • Replace at least 50% of the MS4's materials and 						



				<p>chemicals with more environmentally friendly materials or methods by the end of the permit term;</p> <ul style="list-style-type: none"> • Track 100% of the application of deicing and anti-icing compounds in the MS4 area and record the amount of compound used for each application annually; • Use suspended tarps, booms, or vacuums to capture paint, solvents, rust, paint chips and other pollutants during 80% of regular bridge maintenance each year; and <p>B. Place barriers around or conduct runoff away from 100% of deicing chemical storage areas to prevent discharge into surface waters each year.</p>						
6.09	Stormwater Controls for High Priority Facilities	Transportation, Fleet, Solid Waste	A. Material with potential to contribute to stormwater pollution must be sheltered from exposure to stormwater							
			B. Ensure to the maximum extent practicable that stormwater runoff from storage piles of salt and other de-icing and anti-icing material is not discharged; shall ensure that any discharges from the piles are authorized under a separate discharge permit.							
			C. Develop SOP that addresses spill prevention and spill control at permittee owned and operated fueling, vehicle maintenance, and bulk fuel delivery facilities							
			D. Develop SOP that address equipment and vehicle washing activities at permittee owned and operated facilities. Ensure that wastewater is not discharged under the permit, the SOP may include a reclaim system, capturing and hauling for proper disposal, connecting to the sanitary sewer (where allowed), by ceasing washing activity or applying and obtaining a separate TPDES permit.							
6.10	Storm Sewer System Inspections, Operations and Maintenance	Mowing and Drainage	A. Inspect MS4 owned and operated detention basins. (need total of detention basins)	25%						
			B. Inspect MS4 owned and operated stormwater inlets. (need total of inlets in city)	25%						
			C. Inspect and clean MS4 owned and operated drainage system. (need total of drainage systems)	25%						
			D. Number of city owned sewer infrastructure (LF of pipe)							
			E. Number of maintained City owned storm sewer infrastructure (LF of pipe)							
			F. How much trash was removed from outfall filter sock							
			G. Develop and implement an operations and maintenance program to reduce to the maximum extent practicable the collection of pollutants in							



				catch basins and other surface drainage structures						
				H. Develop a list of potential problem areas. The permittee shall identify and prioritize problem areas for increased inspections.						
		Water & Sewer		I. Number of water lines flushing's conducted						
				J. Number of water line flushing conducted using de-chlorination equipment.						
6.11 & 3.16	Household Hazardous Waste (HHW) Collection Program	Recycling		A. Continue to offer the service for residents to drop off HHW at the City's Environmental Collection Center on specific dates utilizing the facility.	1					
				B. Record the weight of materials collected (HHW)						
				C. Provide a consolidated summary of HHW material types and quantity collected						
				D. The amount recycled						
				Number of gallons of Oil						
				Metals recycled						
				Glass						
				Paper						
				Cardboard						
				Plastic containers						
				Cooking oil						
				Antifreeze						
				Batteries						
				Tires						
				E. Amount sent off for disposal,						
				F. Participation of Killeen residents						
6.12	Street Sweeping and Catch Basin Cleaning			A. The City will perform periodic street sweeping of major thoroughfares and residential streets to reduce pollutants entering the storm sewer system. Additionally, blocked catch basins can build up leaves, store water and present other conditions favorable to bacteria growth and development. As the City becomes aware of a blocked catch basin, it will be cleaned in a timely manner. 100% of waste will be collected and disposed of in accordance with 30 TAC 330 and 335						
6.13	Street Sweeping, Implementation			A. Implement a sweeping program, in accordance with a frequency and schedule, determine a program that	100%					



	Schedules			will address at a minimum of 75% of the areas in the program annually.						
				B. Streets infeasible for sweeping, implement liter and trash control procedures or provide inlet protection measures.						
				C. Collect and dispose of sweeper material waste without re-entry into MS4.						
				D. Number of curb miles swept						
6.14	Non-Chemical Solutions for Open Space			A. Landscape maintenance – The permittee shall evaluate the materials used and activities performed on public spaces owned and operated by the permittee such as parks, schools, golf courses, easements, public rights of way, and other open spaces for pollution prevention opportunities. Maintenance activities for the turf landscaped portions of these areas may include mowing, fertilization, pesticide application, and irrigation. Typical pollutants include sediment, nutrients, hydrocarbons, pesticides, herbicides, and organic debris.						
				B. The permittee shall implement the following practices to minimize landscaping-related pollutant generation with regard to public spaces owned and operated by the permittee: (i) Educational activities, permits, certifications, and other measures for the permittee’s applicators and distributors; (ii) Pest management measures that encourage non-chemical solutions where feasible. Examples may include: (a) Use of native plants or xeriscaping; (b) Keeping clippings and leaves out the small MS4 and the street by implementing mulching, composting, or landfilling; (c) Limiting application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions; and (d) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing motorist safety.						
				C. The permittee shall develop schedules for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and expected precipitation; and						
				D. The permittee shall ensure collection and proper disposal of the permittee’s unused pesticides, herbicides, and fertilizers.						



6.15	Pesticide, Herbicide, and Fertilizer applicator and distributor measures			<p>A. Require 100% of pesticide, herbicide, and fertilizer applicators and distributors working in the public spaces owned and operated by the permittee, including contract workers, to demonstrate at least one of the following each year:</p> <ul style="list-style-type: none"> • Training in application or distribution • Permit to apply or distribute • Certification for application or distribution 						
6.16	Landscape Maintenance			<p>A. Evaluate at least one time each year the materials used, and activities performed on 100% of the public spaces owned and operated by the permittee for pollution prevention opportunities such as:</p> <ul style="list-style-type: none"> • parks, • schools, • golf courses, • easements, • public rights of way, and • other open spaces. <p>B. Number of facilities taken care of</p> <p>C. Number of City Staff that conduct grounds and ROW maintenance</p> <p>D. Number of City Staff with applicators license</p>						
6.17	Non-Chemical Solutions			<p>A. Utilize at least one of the following non-chemical solutions each year in 100% of the public spaces owned and operated by the permittee:</p> <ul style="list-style-type: none"> • Use of native plants or xeriscaping in 10% of each public space’s landscaping area; • Keep clippings and leaves out the small MS4 and the street by implementing mulching, composting, or landfilling; • Limit application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions; or • Reduce mowing of grass frequency to allow for greater pollutant removal, but not jeopardizing motorist safety. <p>If it is not feasible for the small MS4 operator to implement at least one of these measures in one or more public spaces owned and operated by the permittee, written documentation of the reason must be maintained and made available to the TCEQ upon request.</p> <p>B. Number of facilities with non-chemical pest management</p>						
6.18	Schedules for chemical application			<p>A. Develop and implement chemical application schedules for use in 100% of applicable public spaces owned and operated by the permittee each year. Schedules must minimize the discharge of pollutants from the chemical application due to irrigation and</p>						



				expected precipitation.						
6.19	Evaluation of Flood Control Projects			<p>A. Assess the impacts of the receiving water(s) for 100% of the flood control projects each year. 100% of new flood control structures must be designed, constructed, and maintained to provide erosion prevention and pollutant removal from stormwater.</p> <p>B. The retrofitting of 20% of the existing structural flood control devices each year to provide additional pollutant removal from stormwater shall be implemented unless infeasible.</p> <ul style="list-style-type: none">• If it is not feasible for the small MS4 operator to retrofit 20% of the existing control devices each year, written documentation of the reason must be maintained and made available to the TCEQ for review upon request. <p>C. Number of stormwater infrastructure approved and constructed.</p>						



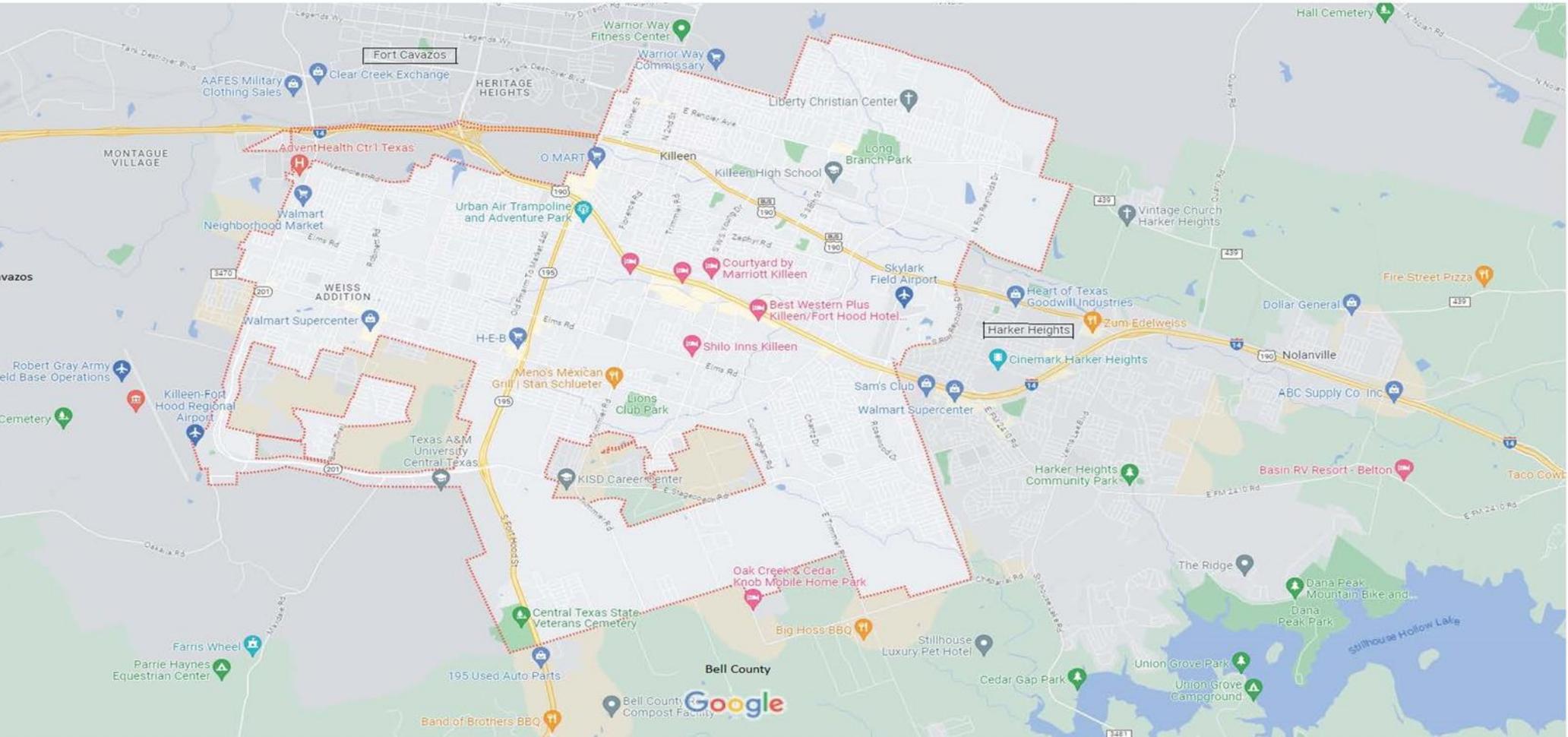
No.	Best Management Practice	Responsible Department	Target Audience	Measurable Goal	Quantitative Goals	Goal Completed By				
						Year 1	Year 2	Year 3	Year 4	Year 5
						Jan. 2024 – Dec. 2024	Jan. 2025 - Dec. 2025	Jan. 2026 - Dec. 2026	Jan. 2027 - Dec. 2027	Jan. 2028 - Dec. 2028
MCM 7 - Industrial Sources										
7.01	Industrial facilities			A. Identify and control pollutants in stormwater discharges to the small MS4 from 100% of the permittee’s landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4.						
7.02	Industrial Inspections			A. Inspect 100% of small MS4 owned and operated facilities described by Part IV.D.7.(a) at least one time annually. B. Inspect 100% of industrial facilities permitted under the TPDES MSGP, TXR050000 and located within the small MS4 area at least one time annually.						
7.03	Develop SOPs for Industrial Facilities			A. Develop and implement SOPs for 100% of inspections of facilities as described by Part IV.D.7.(b) and industrial facilities permitted under the TPDES MSGP, TXR050000 and within the small MS4 area. B. Review and update the facility inspection SOPs at least one time annually to address changes or additions						
7.04	Ordinance Review & SWMP Updates			A. Review and update municipal ordinance as needed and submit a NOC if updates require it.						



APPENDIX A
CITY OF KILLEEN MAPS



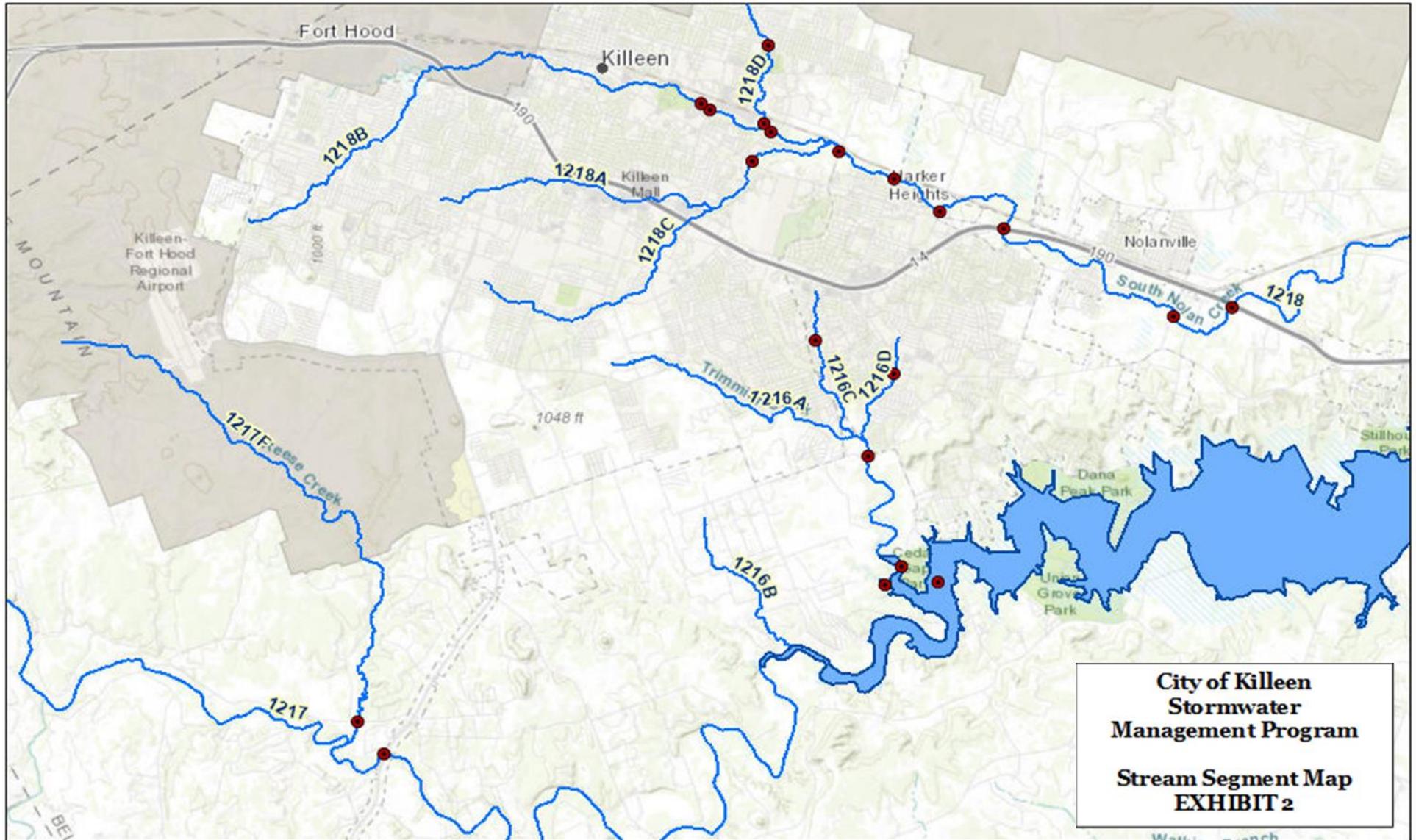
le Maps Killeen
City of Killeen, Texas



City of Killeen Boundary Limits

Map data ©2023 Google 1 mi

Killeen, TX. Surface Water Quality in Texas Custom Map

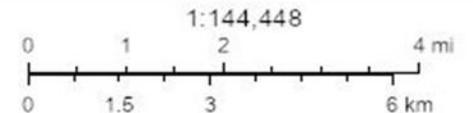


**City of Killeen
Stormwater
Management Program**

**Stream Segment Map
EXHIBIT 2**

7/21/2023, 10:05:50 AM

-  Stream Segments
-  SWQM Stations (Active)
-  Reservoir Segments



Texas Parks & Wildlife, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, TCEQ

Web AppBuilder for ArcGIS
Texas Parks & Wildlife, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | TCEQ |



APPENDIX B

CITY OF KILLEEN NOTICE OF INTENT



APPENDIX C

TPDES MS4 GENERAL PERMIT TXR040000

APPENDIX D

NOI TEMPLATE