



City of Lakeway, Texas

Storm Water Management Program (SWMP) Municipal Separate Storm Sewer System (MS4) TPDES General Permit No. TXR040000

Revised September 2021

Prepared by City of Lakeway
Building and Development Services Department
1102 Lohmans Crossing
Lakeway, TX 78734

512-314-7540
www.lakeway-tx.gov

Table of Contents

Acronyms	3
TPDES General Permit TXR040000 Definitions	4 - 9
Introduction	
Regulatory Background	10
City Background	11
Plan Development	13
Minimum Control Measures	
MCM 1 – Public Education, Outreach, and Involvement	14 - 16
MCM 2 – Illicit Discharge Detection and Elimination (IDDE)	17 - 18
MCM 3 – Construction Site Storm Water Runoff Control	19 - 20
MCM 4 – Post-Construction Storm Water Management	21
MCM 5 – Pollution Prevention and Good Housekeeping for Municipal Operations	22 - 23

Figures

<i>Figure 1 – MS4 Overview Map</i>	12
------------------------------------	----

Appendix - List of BMP's by Minimum Control Measure

<i>MCM 1 – Public Education, Outreach, and Involvement</i>	
<i>MCM 2 – Illicit Discharge Detection and Elimination (IDDE)</i>	
<i>MCM 3 – Construction Site Storm Water Runoff Control</i>	
<i>MCM 4 – Post-Construction Storm Water Management</i>	
<i>MCM 5 – Pollution Prevention and Good Housekeeping</i>	

Acronyms

BDS: City of Lakeway Building and Development Services

BMP: Best Management Practice

CFR: Code of Federal Regulations

COL: City of Lakeway (also “City”)

CRP: Clean Rivers Program

CWA: Clean Water Act

DACS: Design and Construction Standards

EARZ: Edwards Aquifer Recharge Zone

ETJ: Extraterritorial jurisdiction

EPA: Environmental Protection Agency

GIS: Geographic Information System

Hazmat: Hazardous Materials

HHW: Household Hazardous Waste

LTISD: Lake Travis Independent School District

MCM: Minimum Control Measure

MEP: Maximum Extent Practicable

MS4: Municipal Separate Storm Sewer System

MSDS: Material Safety and Data Sheet

NPDES: National Pollution Discharge Elimination System

NOC: Notice of Change

NOI: Notice of Intent

NOT: Notice of Termination

PARC: Parks and Recreation Department

PSA: Public Service Announcements

ROW: Right of Way

SPCC: Spill Prevention Control and Countermeasures Plan

SWMP: Storm Water Management Program

SWPPP: Storm Water Pollution Prevention Plan

TAC: Texas Administrative Code

TCEQ: Texas Commission on Environmental Quality

TPDES: Texas Pollution Discharge Elimination System

WPAP: Water Pollution Abatement Plans

TPDES General Permit TXR040000 Definitions

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

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

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

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

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

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

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

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

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

Construction Site Operator - The entity or entities associated with a small or large construction project that meet(s) either of the following two criteria:

- (a) The entity or entities that have operational control over construction plans and specifications (including approval of revisions) to the extent necessary to meet the requirements and conditions of this general permit; or
- (b) The entity or entities that have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a storm water pollution prevention plan (SWP3) for the site or other permit conditions (for example they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

Control Measure - Any BMP or other method used to prevent or reduce the discharge of pollutants to water in the state.

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

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

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

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

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

- (a) All soil disturbing activities at the site have been completed and a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (b) For individual lots in a residential construction site by either:
 - (1) The homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) The homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization.
- (c) For construction activities on land used for agricultural purposes (for example pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to a surface water and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.
- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - (1) Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and
 - (2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

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

Groundwater Infiltration - For the purposes of this permit, groundwater that enters a municipal separate storm sewer system (including sewer service connections and foundation drains) through such means as defective pipes, pipe joints, connections, or manholes.

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

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

Illicit Connection - Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency firefighting activities.

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

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

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

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

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

MS4 Operator - For the purpose of this permit, the public entity or the entity contracted by the public entity, responsible for management and operation of the small municipal separate storm sewer system that is subject to the terms of this general permit.

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

- (a) Owned or operated by the U.S., a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under the CWA §208 that discharges to surface water in the state;
- (b) That is designed or used for collecting or conveying storm water;
- (c) That is not a combined sewer; and
- (d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2.

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

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

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

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

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

Permittee - The MS4 operator authorized under this general permit.

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

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

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

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

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

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

(b) Designed or used for collecting or conveying storm water;

(c) Which is not a combined sewer;

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

(e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

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

Storm Water and Storm Water Runoff - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Associated with Construction Activity - Storm water runoff from an area where there is either a large construction or a small construction activity.

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

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

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

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

Traditional Small MS4 - A small MS4 that can pass ordinances and have the enforcement authority to enforce the storm water management program. An example of traditional MS4s includes cities.

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

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

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate wetlands;
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce.
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Introduction

Regulatory Background

The U.S. Environmental Protection Agency (EPA) issued regulations to protect storm water quality in urbanized areas. In Texas, the Texas Commission on Environmental Quality (TCEQ) was delegated the responsibility for implementing the regulations, commonly called the Phase II Storm Water Program. The City of Lakeway is one of several hundred cities, counties, and other public entities required to develop a program to protect storm water quality under Phase II regulations.

Phase II MS4s are categorized by population:

- Level 1: Small MS4 operators that serve a population of less than 10,000 within an Urbanized Area (UA);
- Level 2: Small MS4 operators that serve a population of at least 10,000 but less than 40,000 within a UA;
- Level 3: Small MS4 operators that serve a population of at least 40,000 but less than 100,000 within a UA; and
- Level 4: Small MS4 operators that serve a population of 100,000 or more within a UA.

According to the results of the 2010 Census, the City of Lakeway is within the category of Level 2.

The City of Lakeway developed the Stormwater Management Program (SWMP) in accordance with the requirements of the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR040000 (effective date of January 24, 2019). The SWMP will facilitate the City's efforts in reducing stormwater pollutants from the City's MS4, thereby protecting the City's stormwater quality to the maximum extent practicable (MEP).

Included in the SWMP are specific best management practices (BMPs) that will be implemented to reduce pollutants, measurable goals for each BMP, and an implementation schedule developed for the five-year permit term. Various BMPs were developed for each of the six minimum control measures (MCMs) that are required by the Phase II Rule.

The six MCMs are:

1. Public Education, Outreach, and Involvement;
2. Illicit Discharge Detection and Elimination (IDDE);
3. Construction Site Stormwater Runoff Control;
4. Post-Construction Stormwater Management in New Development and Redevelopment;
5. Pollution Prevention and Good Housekeeping for Municipal Operations;
6. Industrial Stormwater Sources (*required only of Level 4 MS4's*).

The sixth MCM (Industrial Stormwater Sources) and an optional seventh minimum control measure, to address municipal construction activities through their SWMP, have not been selected for inclusion in this SWMP.

By submitting a SWMP and NOI to comply with the TPDES Phase II regulations, the City of Lakeway acknowledges the regulatory authority of the TCEQ and agrees to comply with TPDES TXR040000 permitting requirements to discharge directly into surface waters. This permit and authorization shall expire five years after the date of issuance. An annual report documenting compliance with the SWMP will be submitted to TCEQ.

City Background

The City of Lakeway, Texas is located in western Travis County on the south shore of a portion of Lake Travis, approximately 22 miles northwest of Austin. The Village of Lakeway was incorporated in June 1974 as a general law municipality, which was governed by a board of commissioners and a mayor until 1983. From 1983 to mid-1990, the Village of Lakeway functioned as an aldermanic form of government, consisting of aldermen and a mayor. In the state of Texas, a general law city derives all its powers and duties from the Local Government Code of the State Constitution.

Once the recorded population reached over 5,000 residents in 1990, the Village of Lakeway met the State's requirement for becoming a home rule city. City officials adopted a city charter, which was approved by the voters in an election in May 1990, thereby establishing the City of Lakeway as a self-governing municipality.

In accordance with the Lakeway City Charter, the City of Lakeway operates as a council-manager form of government. The mayor and six councilmembers are elected officials who act as the legislative body of the City. The city manager reports directly to the city council and administers the day-to-day affairs of the city, implementing the policies established by council and ensuring that the city operates in a fiscally responsible manner. The City's primary sources of revenue are property tax, sales tax, and franchise fees. Lake Travis Fire Rescue (Travis Co. ESD #6) provides fire suppression and emergency medical response, and different Municipal Utility Districts (MUD's) and Water Control and Improvement Districts (WCID's) provide water and wastewater services.

The 2010 U.S. Census population was 11,391, up from 8,002 in 2000. The current estimated population of the city is 16,000. The city's commercial corridor encompasses Ranch Road 620, near the city's eastern boundary. The area's largest employers include the Lake Travis Independent School District, and Lakeway Regional Medical Center. The community includes several golf courses, tennis courts, marinas, a private airport, a sixty-five mile long lake, one hundred acres of parkland and trails, and nearly five hundred acres of greenbelts.

The majority of the City of Lakeway is contained within the Lake Travis watershed, one of the Highland Lakes of Central Texas managed by the Lower Colorado River Authority (LCRA), while a small portion is within the Lake Austin watershed. Under the authority of the LCRA Enabling Act, specifically Texas Water Code Section 222.004(a), (d), (e), (q) and other applicable law, LCRA has the authority to implement storm water pollution regulations around the Highland Lakes.

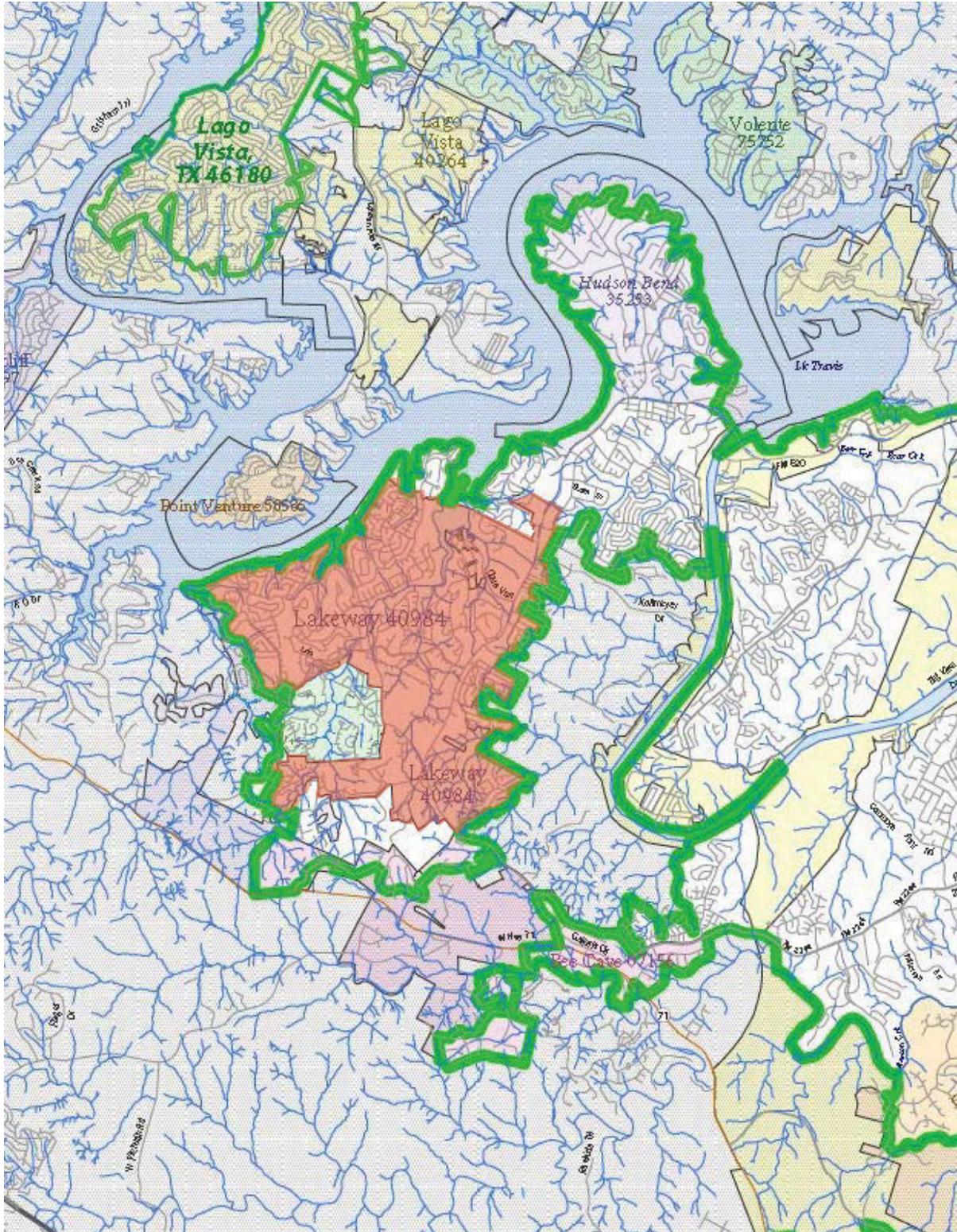
The City has entered into an interlocal agreement with LCRA to review water quality requirements on behalf of LCRA to ensure compliance with LCRA's Highland Lakes Watershed Ordinance. The City has adopted the same water quality requirements to also apply to the smaller portion of the City that is contained within the Lake Austin watershed, even though that area is not regulated by LCRA.

Section 28.09.009 of the Lakeway Code of Ordinances provides the City of Lakeway with the legal authority necessary to implement and enforce the requirements of this permit.

Figure 1 – City of Lakeway MS4 Overview Map

City Limits Boundary Contained within the Identified Urbanized Area

(Note: not all of the city limits is contained within the identified Urbanized Area)



Plan Development

An important aspect of developing an effective, compliant, and cost efficient TPDES Small MS4 SWMP is to acknowledge these on-going programs and identify how each is related to the MCMs of the general permit. Details of the city's existing storm water related programs were collected, summarized, and categorized into one of the five MCM's required by the general permit.

Several of the city's existing programs meet specific general permit requirements and contribute toward fulfilling the general permit requirement to reduce pollutants to the maximum extent practicable. Additional BMP's were selected to supplement the city's existing programs and to fulfill the requirements of the general permit. BMP's were evaluated for each of the five MCM's.

Selection of the BMPs, measurable goals, and an implementation schedule was based on what was seen as necessary and achievable by those city departments who will be responsible for accomplishing the activities supporting the BMPs. Consideration was also given to whether or not inclusion of the activities in the SWMP would meet the permit requirements

Costs associated with implementing the various BMPs and measurable goals will be evaluated on an annual basis. Implementation of each BMP will be tracked as required during each year of the permit. Adjustments to the BMPs and implementation schedules will be made as necessary according to permit requirements.

As an applicant under the TPDES General Permit No.TXR040000, the city must adhere with the public notice procedures described in Part II, Section E (12) of the general permit.

The city must submit an NOI and SWMP to the executive director of TCEQ. The SWMP must include information about:

1. BMPs the city will implement for each of the five MCMs, as appropriate;
2. The measurable goals for each of the BMPs, including, as appropriate the months and years in which the applicant will take the required actions, including interim milestones and the frequency of the action; and
3. The person or persons responsible for implementing or coordinating the city's SWMP.

After the city receives written instructions from the TCEQ's Office of Chief Clerk, the city must publish notice of the executive director's preliminary decision on the NOI and SWMP.

The notice will include the following information, at a minimum:

1. The legal name of the city as the MS4 operator;
2. Indication that the NOI is for a new authorization;
3. The address of the city;
4. A brief summary of the information included in the NOI;
5. The location and mailing address where the public may provide comments to the TCEQ;
6. The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed; and
7. If required by the executive director, the date, time, and location of the public meeting.

Minimum Control Measure 1 – Public Education, Outreach, and Involvement

General Permit Requirement: Part III, Section B. 1

All permittees shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.

Current Programs

The City of Lakeway provides public education and outreach opportunities to the residents, business community, and visitors through informational signs, printed materials, and website information. Through the Building & Development Services Department, the Parks & Recreation Department, the Solid Waste Department, the Public Works Department, and the City Communications Director, the city provides printed informational signs in public parks and printed brochures that are distributed by mail and through personal contact on a routine basis throughout the year. Conservation and pollution prevention materials are made available online and at various city facilities and events.

Best Management Practices

The target audiences for the BMP's for public education are focused on residents, businesses, and visitors to Lakeway. Public involvement efforts are designed to engage residents and businesses in ongoing stormwater programs supported by the City.

BMP 1.01 Storm Water Quality Outreach Materials

The City of Lakeway will provide a variety of educational brochures to be available on the City's website, distributed at community events, at city offices, through utility bill inserts, and through mail out campaigns. Materials will also be distributed electronically when feasible. These brochures and handouts will be designed to inform residents and visitors of the effects of polluted stormwater runoff and how individuals can minimize impacts on the local environment. Publications to be provided to the community include:

- City of Lakeway – Homeowners Guide for Storm Water Drainage
- City of Lakeway – Pool Maintenance/Draining Flyers
- City of Lakeway – Household Hazardous Waste Collection Event Flyers
- EPA – Homeowners Guide for Septic Systems

Goals:

- Continue to develop and distribute stormwater quality education materials.
- Distribute printed materials and promotional items throughout the community as appropriate in order to inform residents, visitors, businesses, and public service personnel on the importance of storm water management activities.

BMP 1.02 Pet Waste Management

The City has an ordinance requiring the handler of a dog or cat to remove pet waste from improved property not owned by the handler. The Parks and Recreation Department maintains pet waste collection bags and dispensers in the public parks/greenbelts and along City trails to promote proper owner disposal of pet wastes. The dispenser locations include informative signage that encourages pet owners to make use of the dispensers regularly. Publications to be provided to the community include:

- City of Lakeway – “Scoop the Poop” flyers

Goals:

- Maintain the existing pet waste collection systems and install new ones as the parks and trail system size increases.
- Inform the public about the City Ordinance regarding pet waste removal (website, fliers).

BMP 1.03 Trash & Debris Management

The City of Lakeway has long been proactive in creating opportunities for community volunteers and implementing services to promote proper solid waste management within the City. These opportunities include the Earth Day Beautification Event, monthly yard waste collection events, and the city's single-stream curbside recycling program. Additionally the City has partnered with other entities in an annual Household Hazardous Waste disposal program.

- Single-stream curbside recycling
- Household Hazardous Waste disposal program
- Yard Waste Collection Events
- Earth Day Beautification Event

Goals:

- Continue single-stream recycling and incorporate new subdivisions into the program.
- Earth Day Beautification Event through an annual publication through The Lake Way E-Newsletter.
- Establish a permanent Household Hazardous Waste disposal facility with quarterly programs rather than an annual program.
- Continue to provide a monthly yard waste collection service for residents to facilitate the proper disposal for cut limbs and brush.

BMP 1.04 Storm Drain Marking

The City will establish a program to provide storm sewer curb inlets with storm drain markers to raise awareness that dumping trash, debris or hazardous waste into storm drains contributes to water pollution and endangers wildlife.

Goals:

- Provide markers for new subdivisions and HOAs to install at storm sewer curb inlets independently and through marking events.
- Encourage local community service groups (HOA's, Eagle Scouts, etc.) to volunteer for the installation of the markers within their subdivisions.
- Install markers at 33% of the City's curb inlets each year.

BMP 1.05 Lawn & Garden Education for Homeowners

The City will provide information regarding the use and installation of low maintenance and drought tolerant plants. Encourage the mulching of grass and yard clippings as compost instead of the application of commercial fertilizers.

Goals:

- Provide information about native and adaptive plants on the city website and at City Hall.
- Encourage the use of low maintenance and low water using plants through the city website and the distribution of brochures and handouts.
Distribute materials throughout the community as appropriate in order to promote responsible and sustainable yard care practices.

BMP 1.06 Municipal Storm Water Webpage

The City will develop, publish, and maintain a page on the City website (<https://www.lakeway-tx.gov/>) devoted to informing the public about the impacts that storm water runoff can have on water quality, and steps that they can take to reduce pollutants in storm water runoff. The target audience for this BMP includes: residents, commercial property owners and businesses, potential visitors to the area, as well as consultants and contractors working within the permit area.

Goals:

- Update the current City website to create a page specific to storm water management.
- Provide links to educational materials and resources.

BMP 1.07 Public Notice for Storm Water Management Program

Development Notice of the TCEQ executive director's preliminary determination of the NOI and SWMP will be published in the Lake Travis View.

Goals:

- Publish the notice provided by TCEQ and submit an affidavit of publication.

Minimum Control Measure 2 – Illicit Discharge Detection and Elimination

General Permit Requirement: Part III, Section B.2

All permittees shall develop, implement and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non-storm water discharges, including illegal dumping to the MS4 system.

An illicit discharge is “any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to a National Pollutant Discharge Elimination System (NPDES) permit and discharges resulting from fire-fighting activities”.

Current Programs

The City of Lakeway coordinates with both LCRA and Travis County regarding their permitting of on-site septic systems (OSSF) within the city limits (permitting and inspection is performed by each of those entities). In partnership with other public agencies, the City also conducts an annual household hazardous waste collection program.

Best Management Practices

Target audience for BMP’s for illicit discharge detection/elimination are residents and businesses.

BMP 2.01 Illicit Discharge Detection and Elimination Legal Authority

City staff will continue to review and enforce our ordinances to ensure city staff can effectively prohibit non-storm water discharges into the city's storm sewer system.

Goals:

- Review and update our illicit discharge ordinance and enforcement procedures as necessary. Coordination with LCRA will be critical as they have the authority to regulate water quality throughout the Highland Lakes watershed.
- Notify residents, businesses, and industries of the illicit discharge ordinance and investigation and enforcement procedures using the city's website, and other public notice means.
- Implement reporting procedures and enforcement of the illicit discharge regulations.

BMP 2.02 Illicit Discharge Detection and Elimination Program

Establish a program to detect and eliminate illicit discharges to the small MS4. Elements to be considered include techniques for detection, actions for elimination of an illicit discharge, and responding to complaints.

Goals:

- Implement an illicit discharge inspection, detection and elimination program.
- Develop and maintain on-site procedures for responding to illicit discharges and spills.
- Provide a link on the City website for the public to notify the City of any illicit discharge. Respond to complaints received.
- Report illicit discharges and water quality impacts on the City website.
- Create a new position within the City to monitor and enforce illicit discharge.
- Work with neighboring entities on a communication and action plan to address illicit discharge situations.
- Develop and maintain documentation procedures for source investigations and eliminations.

BMP 2.03 Education and Training

Implement a training program for illicit discharge investigation and elimination. Establish procedures for tracing the source of an illicit discharge.

Goals:

- Conduct an annual review of City Illicit Discharge Detection and Elimination (IDDE) procedures.
- Continuation of established training program for city field personnel with an annual meeting/training presentation.

BMP 2.04 Storm Drainage System Mapping

The City will develop and update a map showing the Water of the United States and the location of major storm sewer pipes, outfalls, and other conveyances owned or operated by the City.

Goals:

- Prepare base map and map 20% of the City's existing storm drainage system and outfalls each year.
- Regularly update the storm drainage system map with new, altered and newly discovered storm sewer features.

BMP 2.05 Household Hazardous Waste Disposal

In conjunction with other local agencies, the City of Lakeway conducts an annual household hazardous waste disposal program. Household cleaners, latex and oil-based paint, flammable liquids, household batteries, pesticides, and other materials are accepted at a central location. This service is advertised through the city's website, mailers, and brochures that are distributed at city events.

Goals:

- Collect household hazardous wastes at a central location.
- Update website and distribute informational brochures to inform residents of the service.
- Establish a permanent Household Hazardous Waste disposal facility with quarterly programs rather than an annual program

Minimum Control Measure 3 – Construction Site Stormwater Runoff Control

General Permit Requirement: Part III, Section B.3

All permittees shall develop, implement and enforce a program requiring operators of small and large construction activities, as defined in Part I of the general permit, to select, install, implement, and maintain storm water control measures that prevent illicit discharges to the MEP. The program must include the development and implementation of an ordinance or other regulatory mechanism, as well as sanctions to ensure compliance to the extent allowable under state, federal, and local law, to require erosion and sediment control.

Current Programs

The City of Lakeway maintains an active program of construction plan review and project inspection. The City currently has an ordinance (Sec. 28.09.016) requiring the installation of erosion and sedimentation controls to regulate silting and erosion. Pre-construction meetings are held with all contractors to inform them of City requirements and to answer questions.

Best Management Practices

Construction site storm water runoff control measures are designed to prevent soil and construction debris from entering the MS4 system from construction sites. The target audiences for the BMP's are developers and contractors.

BMP 3.01 Legal Authority for Construction Site Runoff Control

The City will review existing regulations to ensure that the legal authority to address construction site stormwater runoff from development and redevelopment construction sites is in place and is enforceable.

Goals:

- Review and update regulations as needed to reflect changes in standards/technology and to clarify requirements of the City's Code of Ordinances.
- Review and update regulations to address prohibited illicit and construction related discharges.

BMP 3.02 Construction Plan Review

Review site plans and construction plans for all new development and redevelopment and for capital construction. Ensure compliance with the City Code of Ordinances and LCRA Highland Lakes Watershed Ordinance for water quality treatment.

Goals:

- Construction plans are reviewed prior to construction to verify compliance with the City's temporary erosion and sedimentation control and other applicable pollution prevention control ordinances for new development and redevelopment.
- When applicable, construction activities are required obtain permit authorization under the CGP TXR150000 and/or develop and implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with state regulations.
- Water quality treatment plans are reviewed for compliance with city ordinance and the LCRA Highland Lakes Watershed Ordinance.

BMP 3.03 Construction Site Compliance Monitoring

The City will continue its current program of construction site inspection and enforcement of the use and maintenance of construction site BMPs. The City requires contractors to submit weekly inspection reports to ensure all erosion controls are functioning as designed. Any other state requirements must also be met. Additionally, Code Enforcement and the City Engineer perform regular site visits to ensure compliance.

Goals:

- Continue to inspect construction sites for erosion and sedimentation control and other applicable pollution prevention BMPs.
- Enforce compliance with City regulations regarding temporary erosion control.
- Provide a link on the City website for the public to notify the City with any questions or comments on existing construction sites. Respond to complaints received.
- The program for construction site storm water runoff for one acre or more will include the following. Storm water inspections are currently and will continue to be performed by 3rd party environmental inspectors that will give weekly inspection reports to the city engineer and the MS4 operator. Inspections with inconsistencies will be followed up by code enforcement and the MS4 operator to ensure compliance is reached and all BMPs are correct and in place.
- This program will be enforced by the code enforcement department, 3rd party environmental inspectors and the MS4 operator. The program requires that sites have implemented erosion and sediment control BMPs. These BMPs will be implemented to minimize pollutants discharge including equipment washing, vehicle washing, other wash waters and minimize exposure to storm water from building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other material's. The City will ensure that these construction sites have developed storm water pollution prevention plan in accordance with the TPDES Construction General Permit TXR150000.
- For receipt and consideration of input from the public, citizens will be able to voice their concerns after the NOI is issued in the Lake Travis view. The MS4 operator will also take in any other public concerns into consideration
- This program prohibits the illicit discharges such as washout wastewater, fuels, oils, soaps, solvents, and dewatering activities.
- Procedures for MS4 Staff Training: The City shall ensure that all staff whose primary job duties are related to implementing the construction storm water program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to conduct these activities. The training may be conducted by the permittee or by outside trainers.

Minimum Control Measure 4 – Post Construction Storm Water Management in New Development and Redevelopment

General Permit Requirement: Part III, Section B.4

All permittees shall develop, implement and enforce a program, to the extent allowable under state, federal, and local law, to control storm water discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites.

Current Programs

The City's current post construction storm water management practices include the requirement for site revegetation of all disturbed areas following construction. Each development shall provide, operate, and maintain water quality ponds for treatment of storm water runoff.

Best Management Practices

BMP 4.01 Post Construction Storm Water Management Legal Authority

The City will conduct a review of its legal authority to require and inspect post construction stormwater management of new development and redevelopment construction projects using structural and non-structural BMPs.

Goals:

- Review and update the City's current development code for requirements for post- construction maintenance of BMPs for new development and redevelopment construction.

BMP 4.02 Long-Term Maintenance of Post Construction Storm Water Control Measures

The City will review its legal authority to require long-term maintenance and operation of structural storm water control measures and water quality ponds.

Goals:

- Review and update the City's current development code as necessary for requirements for long-term maintenance of BMPs for new development and redevelopment construction.
- Develop bi-annual water quality pond inspection report forms for each development to complete and provide to the City.
- Perform an annual review/update of water quality/detention pond inspection report forms and the City "Water Quality Pond" webpage to facilitate compliance with city requirements related to post-construction water quality controls.
- Require property owners and HOAs to submit bi-annual water quality/detention pond inspection reports and to maintain water quality/detention ponds in accordance with city ordinances and the LCRA Highland Lakes Watershed Ordinance. Maintain records.

BMP 4.03 Post-Construction Site Inspection and Project Acceptance

The City will review, update, and implement project acceptance procedures to address Post Construction Storm Water Management for new development and re-development.

Goals:

- Continue post-construction inspections of all construction sites for proper revegetation.
- The City will document and maintain records of enforcement actions taken.
- The program for site development/redevelopment storm water runoff for one acre or more will include the following. Storm water inspections are currently and will continue to be performed by 3rd party environmental inspectors that will give weekly inspection reports to the city engineer and the MS4 operator. Inspections with inconsistencies will be followed up by code enforcement and the MS4 operator to ensure compliance is reached and all BMPs are correct and in place.
- Enforcement actions of new developments will be recorded and documented.
- City Ordinance Sec. 28.09.016 is in place which will regulate discharges from new development and redevelopment projects. This Chapter of the ordinance will also enforce a requirement that owners or operators of new development and redeveloped sites design, install, implement, and maintain a combination of structural and nonstructural BMPs appropriate for the community and protects water quality.
- Long term operation and maintenance of post construction storm water control measures will be monitored by Code Enforcement and the MS4 operator and will be maintained by the property owners contractor of choice.

Minimum Control Measure 5 – Pollution Prevention and Good Housekeeping for Municipal Operations

General Permit Requirement: Part III, Section B.5

All permittees shall develop and implement an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal activities and municipally owned areas including but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; storm water system maintenance; new construction and land disturbances; municipal parking lots; vehicle and equipment maintenance and storage yards; waste transfer stations; and salt/sand storage locations.

Best Management Practices

BMP 5.01 Municipal Facilities and Storm Water Control Inventory

The City will inventory and map City-owned and operated facilities and storm water controls. The pollutant discharge potential of each facility will be assessed as a part of this inventory.

Goals:

- Inventory and map all municipal facilities and stormwater controls.

BMP 5.02 Training and Education

The City will develop and implement an employee training program that addresses storm water quality issues, pollution prevention, and good housekeeping procedures for City operations.

Goals:

- Develop a list of departments/divisions and employee positions to be trained in implementing pollution prevention and good housekeeping practices.

BMP 5.03 Disposal of Waste Material

Providing proper waste management is important for protecting the health and sanitation of the community. Solid waste disposal within the City is managed through a contract with a service provider.

Goals:

- Continue existing program and focus.

BMP 5.04 Contractor Requirements and Oversight

The City will initiate contractual requirements in City maintenance contracts that require contractors to comply with Pollution Prevention & Good Housekeeping BMPs adopted by the City.

Goals:

- Identify maintenance services performed by contractors.
- Draft contract provisions that establish contractual requirements for compliance with Pollution Prevention and Good Housekeeping practices and facility-specific storm water management operating procedures.

BMP 5.05 Municipal Operation and Maintenance Activities

Evaluate operations and maintenance (O&M) activities for their potential to discharge pollutants in storm water. This includes street repair/maintenance, right-of-way maintenance (planting, mowing and fertilizing), and street sweeping.

Goals:

- Evaluate current operations and implement measures to reduce the discharge of pollutants.
- Perform inspections of pollution prevention measures at City owned and operated facilities.
- The City will continue the Operation and Maintenance program that is in place to reduce/ prevent pollution from municipal operation.
- MS4 pollutants of concern from Operation and Maintenance herbicides, pesticides, grass clippings, sanding of streets, anti-icing compounds, debris from chipping, grinding, saw cutting, pothole repair, pavement marking, sealing and repaving.
- MS4 is developing and implementing pollution prevention measures to reduce discharge of pollutants from O&M activities.
- MS4 Operator will inspect pollution prevention measures at MS4 Facilities.

BMP 5.06 Structural Control Maintenance

The City owns and maintains several structural water quality pond facilities. Staff will review current procedures for maintenance of such municipal facilities.

Goals:

- Perform a bi-annual inspections of city owned and operated water quality/detention ponds in accordance with the LCRA Highlands Lakes Watershed Ordinance. Maintain records.
- Continue City's operation and maintenance of each municipal facility.

Appendix

List of BMPs by Minimum Control Measure

**Minimum Control Measure No. 1
Public Education, Outreach, and Involvement**

BMP	Description	Implementation Activities	Measurable Goals	Implementation Schedule					Deadline	
				(Calendar) Year						
				1	2	3	4	5		
1.01	Stormwater Quality Outreach Materials	Distribute informational brochures for the purpose of educating residents, visitors, and businesses on issues that impact stormwater quality	Distribute 500 Household Hazardous Waste information flyers at community events and/or through mailout campaigns. Publish events on the city's website.	X	X	X	X	X	Dec. 2019; then annually	
			Distribute 100 Homeowners Guides to stormwater Drainage and Guide to Septic Systems brochures at community events. Publish on city website.	X	X	X	X	X	Dec. 2019; then annually	
			Develop and maintain a City webpage dedicated to educating residents, businesses, and industries on issues that impact stormwater quality.		X	X	X	X	Dec. 2020; then annually	
1.02	Pet Waste Management	Provide pet waste collection dispensers in city parks and greenbelts to promote proper owner disposal of pet waste.	Provide a minimum of 1 new pet waste collection systems as the parks/greenbelts increase in size per park	X	X	X	X	X	Dec. 2019; then annually	
			Distribute 500 informational flyers regarding pet waste removal at community events and/or through mailout campaigns.	X	X	X	X	X	Dec. 2019; then annually	
1.03	Trash & Debris Management	Continue Community Yard Waste Collection Program	Continue to provide a monthly yard waste collection service for residents to facilitate the proper disposal of cut limbs and brush.		X	X	X	X	Dec. 2020; then annually	
			Encourage volunteerism for the Earth Day Beautification Event	Advertise the trash and debris clean-up event through an annual posting on The Lake Way E-Newsletter.		X	X	X	X	March 2020; then annually
			Continue community Household Hazardous Waste collection program	Establish a permanent Household Hazardous Waste disposal facility to provide quarterly programs to service 100% of the city.	X	X	X	X	X	Dec. 2019; then annually
			Continue recycling program	Continue 100% of the curbside recycling program and expand into 100% of newly annexed areas.	X	X	X	X	X	Dec. 2019; then annually
1.04	Storm Drain Marking	Provide and install storm sewer curb inlet markers to raise awareness about stormwater pollution	Install storm sewer curb markers at 33% of the curb inlets within the City each year.			X	X	X	Dec. 2020; then annually	
			Encourage local community service groups and HOA's to volunteer for the installation of storm sewer curb inlets markers through an annual posting on The Lake Way E-Newsletter. Publish opportunity on the city website.			X	X	X	Dec, 2021; then annually	
			Require 100% of new subdivisions to provide markers for 100% storm sewer curb inlets. Provide markers for new subdivisions and HOAs to install at storm sewer curb inlets independently and/or through marking events.			X	X	X	Dec. 2021; then annually	
1.05	Lawn & Garden Education for Homeowners	Distribute brochures and provide links on the City's website to educate residents, visitors, and businesses on lawn and garden concepts	Distribute a minimum of 100 brochures per year at municipal establishments with educational lawn and garden information.	X	X	X	X	X	Dec. 2019; then annually	
			Encourage the use of low maintenance and low water using plants and the mulching of yard clippings as compost through city website and distribution of 100 brochures per year.	X	X	X	X	X	Dec. 2019; then annually	
			Encourage the installation of low maintenance and low water use garden concepts through the city website and distribution of 100 brochures per year.	X	X	X	X	X	Dec. 2019; then annually	
1.06	Municipal Stormwater Webpage	Develop, publish, and maintain a page on the City website devoted to informing the public about the impacts that stormwater runoff	Maintain city website on quarterly basis with updates on links and impacts of runoff.	X	X	X	X	X	Dec. 2019; then annually	
			Provide links to various educational materials and resources.	X	X	X	X	X	Dec. 2019; then annually	
1.07	Public Notice for SWMP Development	Provide public notice of the TCEQ executive director's preliminary determination of the NOI and SWMP	Public notice will be published in the Lake Travis View unless otherwise directed, on a yearly basis.	X	X	X	X	X	Dec. 2019; then annually	

**Minimum Control Measure No. 2
Illicit Discharge Detection and Elimination (IDDE)**

BMP	Description	Implementation Activities	Measurable Goals	Implementation Schedule					Deadline	
				(Calendar) Year						
				1	2	3	4	5		
2.01	Illicit Discharge Detection and Elimination Legal Authority	Conduct a review of our legal authority to effectively prohibit non-stormwater discharges into the city's storm sewer system.	Develop and review illicit discharge ordinance and enforcement procedures on an annual basis. Coordinate with LCRA.		X	X	X	X	Dec. 2020; then annually	
			Notify residents, businesses, and industries of the illicit discharge ordinance and investigation and enforcement procedures using the city's website, distributing 500 utility bill inserts, and other public notice means on an annual basis.				X	X	X	Dec. 2021; then annually
			Develop and maintain a City webpage dedicated to educating residents, businesses, and industries of the illicit discharge ordinance and the adverse effects pollutants associated with illicit discharges have on water quality.				X	X	X	Dec. 2021; then annually
2.02	Illicit Discharge Detection and Elimination Program	Establish a program to detect and eliminate illicit discharges to the small MS4. Include techniques for detection, actions for elimination of an illicit discharge, and responding to complaints	Implement an illicit discharge detection and elimination (IDDE) program with follow up of 100% of complaints and concerns received.	X	X	X	X	X	Dec. 2019; then annually	
			Develop and maintain on-site procedures for responding to illicit discharge and spills.	X	X	X	X	X	Dec. 2019; then annually	
			Create new position to monitor and enforce the illicit discharge ordinance.	X	X	X	X	X	Dec. 2019; then annually	
			Provide a link on the city website for the public to notify the city of any illicit discharges and/or connections. Respond to 100% of complaints received.		X	X	X	X	Dec. 2020; then annually	
2.03	Education and Training	Implement a training program for illicit discharge investigation and elimination. Establish procedures for tracing the source of an illicit discharge	Conduct an annual review of Illicit Discharge Detection and Elimination (IDDE) procedures.		X	X	X	X	Dec. 2020; then annually	
			Continuation of established training program for city field personnel with an annual meeting/training presentation.	X	X	X	X	X	Dec. 2019; then annually	
2.04	Storm Drainage System Mapping	Develop and update a map showing the Waters of the United States and the location of major storm sewer pipes, outfalls, and other conveyances owned or operated by the City	Prepare base map and map 20% of the City's existing storm drainage system and outfalls each year	X	X	X	X	X	Dec. 2019; then annually	
			Update the storm drainage system map with new, altered and newly discovered storm sewer as every 20% is marked each year.	X	X	X	X	X	Dec. 2019; then annually	
2.05	Household Hazardous Waste Disposal	Establish a permanent household hazardous waste disposal facility	Collect household hazardous wastes quarterly at a central location	X	X	X	X	X	Dec. 2019; then annually	
			Update website and distribute 500 brochures to inform residents of the service	X	X	X	X	X	Dec. 2019; then annually	

Minimum Control Measure No. 3

Construction Site Stormwater Runoff Control

BMP	Description	Implementation Activities	Measurable Goals	Implementation Schedule					Deadline
				(Calendar) Year					
				1	2	3	4	5	
3.01	Legal Authority for Construction Site Runoff Control	Ensure that the legal authority to address construction site stormwater runoff from development and redevelopment construction sites is in place and is enforceable	Review and update regulations as needed to reflect changes in standards/technology and to clarify requirements of the City's Code of Ordinances during first year and continue annually.	X	X	X	X	X	Dec. 2019; then annually
			Review and update regulations to address prohibited illicit and construction related discharges the first year and continue review following years.	X	X	X	X	X	Dec. 2019; then annually
3.02	Construction Plan Review	Review site plans and construction plans for all new development and redevelopment. Ensure compliance with the City Code of Ordinances.	Continue to review 100% of submitted construction site plans for erosion and sedimentation control BMPs and other applicable pollution prevention measures during the permit application review process.	X	X	X	X	X	Dec. 2019; then annually
			When applicable, require 100% of development and redevelopment construction projects to obtain a CGP TXR150000 Permit Authorization and develop/implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with state regulations.	X	X	X	X	X	Dec. 2019; then annually
			Review 100% of water quality treatment plans for compliance with all City Ordinances and the LCRA Highland Lakes Watershed Ordinance.	X	X	X	X	X	Dec. 2019; then annually
3.03	Construction Site Compliance Monitoring	Continue and expand on current program of construction site inspection and enforcement of the use and maintenance of construction site BMPs. Continue to require contractors to submit weekly inspection reports to ensure all erosion controls are functioning as designed.	Conduct a minimum of 100 stormwater compliance inspections of construction sites to evaluate compliance with applicable city/state requirements for erosion/sedimentation controls and other pollution prevention measures. Document findings and enforcement actions.	X	X	X	X	X	Dec. 2019; then annually
			Enforce compliance with City regulations regarding temporary erosion and sedimentation controls at 100% of construction sites where failures or deficiencies are observed.	X	X	X	X	X	Dec. 2019; then annually
			When applicable, require new development and re-development construction activities to submit 100% of the required SWPPP Inspection Reports to city officials for review.	X	X	X	X	X	Dec. 2019; then annually
			Provide a link on the City website for the public to notify the City with any questions or comments on existing construction sites. Respond to 100% complaints received.	X	X	X	X	X	Dec. 2019; then annually
			Establish procedures for staff training that allows 100% of SWMP staff to be trained once a year.	X	X	X	X	X	Dec. 2019; then annually

**Minimum Control Measure No. 4
Post-Construction Stormwater Management**

BMP	Description	Implementation Activities	Measurable Goals	Implementation Schedule					Deadline
				(Calendar) Year					
				1	2	3	4	5	
4.01	Post-Construction Stormwater Management Legal Authority	Review legal authority to require and inspect post construction stormwater management of new development and redevelopment construction projects using structural and non-structural BMPs.	Review and update the City's current development code for requirements for post-construction maintenance of BMPs for new development and redevelopment construction.	X	X	X	X	X	Dec. 2019; then annually
4.02	Long-Term Maintenance of Post Construction Stormwater Control Measures	Review legal authority to require long-term maintenance and operation of structural stormwater control measures and water quality ponds.	Review and update the City's current development code for requirements for post-construction maintenance of BMPs for new development and redevelopment construction.		X	X	X	X	Dec. 2020; then annually
			Develop bi-annual water quality/detention pond inspection report forms for each property owners and HOAs to use in order to comply with city requirements related to post-construction water quality controls.		X				Dec. 2020
			Require property owners and HOAs to submit bi-annual water quality/detention pond inspection reports and to maintain water quality/detention ponds in accordance with city ordinances and the LCRA Highland Lakes Watershed Ordinance. Maintain Records.			X	X	X	Dec. 2021; then annually
4.03	Post-Construction Site Inspection and Project Acceptance	Review, update, and implement project acceptance procedures to address Post-Construction stormwater Management for new development and re-development	Continue post-construction inspections of 100% of construction sites for proper revegetation prior to acceptance.	X	X	X	X	X	Dec. 2019; then annually
			Document and maintain 100% of records and enforcement actions taken.	X	X	X	X	X	Dec. 2019; then annually

Minimum Control Measure No. 5

Pollution Prevention and Good Housekeeping for Municipal Operations

BMP	Description	Implementation Activities	Measurable Goals	Implementation Schedule					Deadline
				(Calendar) Year					
				1	2	3	4	5	
5.01	Municipal Facilities and Stormwater Control Inventory	Inventory and map City-owned and operated facilities and stormwater controls	Inventory and map 25% municipal facilities and stormwater controls each year		X	X	X	X	Dec. 2020; then annually
5.02	Training and Education	Develop and implement an employee training program that addresses stormwater quality issues, pollution prevention, and good housekeeping procedures for City operations.	Develop a list of departments/divisions and employee positions to be trained in implementing pollution prevention and good housekeeping practices 33% of each year.			X	X	X	Dec. 2021; then annually
5.03	Disposal of Waste Material	Provide proper waste management to protecting the health and sanitation of the community. Solid waste disposal within the City is managed through a contract with a service provider.	Continue 100% of the existing program and focus. Review as needed and annually if updates are required.	X	X	X	X	X	Dec. 2019; then annually
5.04	Contractor Requirements and Oversight	Initiate contractual requirements in City maintenance contracts that require compliance with the Pollution Prevention & Good Housekeeping BMPs as adopted by the City.	Identify all maintenance services performed by contractors with annual evaluation.	X	X	X	X	X	Dec. 2019; then annually
			Draft contract provisions that establish contractual requirements for compliance with Pollution Prevention and Good Housekeeping practices with annual training or meetings.			X	X	X	Dec. 2021; then annually
5.05	Municipal Operation and Maintenance Activities	Evaluate operations and maintenance (O&M) activities for their potential to discharge pollutants in stormwater. This includes street repair/maintenance, right-of-way maintenance (planting, mowing and fertilizing), and street sweeping.	Evaluate current operations and implement measures to reduce the discharge of pollutants	X	X	X	X	X	Dec. 2019; then annually
			Draft written pollution prevention and good housekeeping procedures relevant to municipal operations and maintenance activities to reduce the discharge of pollutants.			X	X	X	Dec. 2021; then annually
			Perform inspections of pollution prevention measures at City owned and operated facilities annually, or as needed.	X	X	X	X	X	Dec. 2019; then annually
5.06	Structural Control Maintenance	The City owns and maintains several structural water quality pond facilities. Staff will review current procedures for maintenance of such municipal facilities.	Perform bi-annual inspections of city owned and operated water quality/detention ponds in accordance with the LCRA Highland Lakes Watershed Ordinance. Maintain records.			X	X	X	Dec. 2021; then annually
			Continue City's operation and maintenance of each municipal facility on a bi-annual basis	X	X	X	X	X	Dec. 2019; then annually