



City of Austin

Stormwater Management Program

8/25/22

Permit Term 2018-2023

**City of Austin Municipal Separate Storm Sewer (MS4) Permit
Stormwater Management Program (SWMP)
WQ004705000 (EPA I.D. No TXS000401)**

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The City of Austin Storm Water Management Program is implemented by the following departments:

Watershed Protection Department (WPD)

Austin Water (AW)

Austin Fire Department (AFD)

Austin Resource Recovery (ARR)

Development Services Department (DSD)

Public Works Department (PWD)

Housing and Planning Department (HPD)

Parks and Recreation Department (PARC)

Austin Bergstrom International Airport (AUS)

Austin Public Health (APH)

Austin Fleet Mobility Services

INTRODUCTION

History

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (MS4) Permit #TXS000301 was issued to the City of Austin (City) in 1992. Upon delegation to the TCEQ, TPDES permit #WQ0004705000 was issued in 2006 and renewed in 2013 and 2018.

Stormwater Management Program (SWMP)

The City of Austin developed this SWMP to comply with TPDES MS4 requirements for stormwater discharges. The City's goal is to protect surface waters by reducing pollutants in stormwater discharges to the maximum extent practicable. This is accomplished through the implementation of a variety of best management practices including, but not limited to, inspection, maintenance, training, enforcement, planning, design, monitoring, and education. The City has developed robust programs under the eight minimum control measures (MCMs) and beavers away to maintain these programs each fiscal year. Measurable goals have been established along with a schedule for the implementation of the BMPs. The Watershed Protection Department is responsible for the development and maintenance of the SWMP; however, its implementation is a City-wide effort.

SWMP Updates and Revisions

Modifications were made to this document to reorganize its structure so it more closely follows the 2018 renewed permit and reflect new requirements. These changes were informed by experience gained over previous permit terms and should improve the City's ability to effectively manage its stormwater resources.

Total Maximum Daily Load (TMDL) Requirements

WQ0004705000, Part II, C.2.a

a. Discharges to Water Quality-Impaired Water Bodies with an Approved TMDL

For any portion of the MS4 that discharges to a portion of a watershed with an approved TMDL, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls identified in the TMDL and this section.

The SWMP and required annual reports must include information on implementing any targeted controls designed to reduce the pollutant(s) of concern as described below:

i. Targeted Controls

The SWMP must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional Best Management Practices (BMPs) to reduce the pollutant(s) of concern in the impaired waters.

ii. Measurable Goals

For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term.

Introduction

Section 303(d) of the federal Clean Water Act requires all states to identify waters that do not meet, or are not expected to meet, applicable surface water quality standards. States must develop a TMDL for each pollutant that contributes to the impairment of a listed water body. The TCEQ has developed two TMDL documents for 5 impaired surface waters in watersheds associated with the City of Austin's regulated MS4 area. Concentrations of indicator bacteria exceeded the criteria used to evaluate attainment of contact recreation use that is assigned to each of the creeks in all or parts of their reaches.

One TMDL for bacteria was adopted by the TCEQ for Gilleland Creek. Nine TMDLs were adopted by the TCEQ for Walnut Creek, Spicewood Tributary to Shoal Creek (also known as Foster Branch), Waller Creek, and Taylor Slough South. These four creeks were combined into one approved document.

The current and proposed ways in which the City plans to address the bacterial loads in its MS4 are discussed below.

Four Austin Streams

Walnut Creek, Waller Creek, Spicewood Tributary of Shoal Creek, Taylor Slough South

A TMDL was adopted and approved by the TCEQ and EPA in 2015 for 9 TMDLs in Four Austin Streams. The entire water bodies of each creek were included in the TMDL except for Waller Creek. Construction of the Waller Creek Flood Control Tunnel and associated redevelopment

drastically changed the hydrodynamics of the lower portion of Waller Creek. Under high flow conditions, stormwater is diverted through the tunnel to bypass the lowest assessment unit of Waller Creek to reduce flooding. Under low flow conditions, water from the Colorado River is pumped upstream to supplement natural flow, reducing bacteria concentrations. Because of this significant change to the creek's hydrology, the lowest assessment unit of Waller Creek (1429C_0) from the confluence with Lady Bird Lake to East MLK Boulevard was not included in the TMDL.

An Implementation Plan (I-Plan) was approved by the TCEQ and EPA in 2015 and the City of Austin participated in its implementation until its expiration in 2020. Stakeholders began meeting in June 2021 to work on the development of a new I-Plan. All interested stakeholders and communities that use have been engaged in developing strategies to improve water quality. The goal of the project is to reduce bacteria levels to protect people who swim or wade in the creeks.

Per the TCEQ's request, targeted controls were developed to address potential bacteria contributions from homeless populations within the Four Austin Streams. The City has demonstrated that few individuals experiencing homelessness currently or historically reside in the Spicewood tributary of Shoal Creek and Taylor Slough South through data provided from service requests and a pedestrian survey of each waterbody. Data also suggest that limited individuals camp in the TMDL portion of the Waller Creek watershed upstream of the Waller Creek tunnel.

The Watershed Protection Department (WPD) and Parks and Recreation Department (PARD) have each funded two full time employee positions to respond to concerns related to homeless populations in the field.

The WPD Environmental Project Coordinator is a full-time position that is responsible for the oversight and project management of initiatives and activities that pertain to the on-going impacts of public use on WPD lands. The coordinator manages the activities of multiple contractors and actively participates with other City-wide initiatives to address improper public use of City land and assets, namely those activities associated with homeless encampments on Watershed Managed lands and Drainage Easements. This position coordinates activity at identified sites, manages the cleanup contract maintained by the City, develops relationships with wraparound service providers, and serves as a point of contact for Council Members and the public.

The Environmental Coordinator provides daily oversight and scheduling of program activities for contractors or staff related to encampment identification, prioritization, and cleanup. The position is responsible for establishing and ensuring that program policies and procedures for contractors and staff are followed. The coordinator also ensures proper land management, vegetation maintenance, and restoration activities are followed. The coordinator establishes contacts and coordinates ongoing outreach and community engagement activities associated with homelessness social services, encampment management, floodplain restoration, and WPD land management.

PARD also maintains an Environmental Project Coordinator position to educate encampment residents on leave no trace (LNT) principles and assist cleanup crews with resident engagement.

Encampment management and cleanups are a recurring effort that will continue until the causes of homelessness for each individual are identified and resolved. The City has found that engaging and partnering with people experiencing homelessness is effective in reducing environmental impacts of encampments.

The following quantifiable goals were established by the City prior to stakeholder development and implementation of the I-Plan.

 TMDL Measures – Four Streams <i>Wastewater Infrastructure and OSSFs</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
OSSF Investigation and Enforcement Actions (customer driven)	Respond to 100% of complaints or notices of potential violation	September 30 th , annually	AW
OSSF Investigation of illegal discharges (customer driven)	Respond to 100% of complaints or notices of potential violation.	September 30 th , annually	AW
Respond to wastewater emergencies	Respond to overflow emergencies within 1 hour 95% of the time*	September 30 th , annually	AW
Inspect City Owned Lift Stations	Inspect 100% of City lift stations	Weekly	AW

*AW will always strive to maintain a 1-hour response time, 95% of the time; however, in the event of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, it will be attained 90% of the time.

 TMDL Measures – Four Streams <i>Illicit Discharges, Detection and Elimination</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Dry Weather Screening of outfalls with a diameter $\geq 36"$ in <i>Four Streams</i> TMDL area (527 outfalls total)	Screen 50 outfalls	September 30 th , 2022	WPD
	20% (~105 outfalls) per year, until all outfalls have been screened once in the permit term	September 30 th , annually – with first deadline of 9/30/2023	

 TMDL Measures – Four Streams <i>Animal Sources</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Scoop the Poop	Fulfill 100% of requests from the Parks and Recreation Department for pet waste bags and dispensers	September 30 th , annually	WPD
Scoop the Poop	Support one tabling event at Walnut Creek Metro Park which is a site identified in a TMDL I-Plan and an off-leash dog park	September 30 th , annually	WPD
Scoop the Poop	Check and maintain 1 kiosk at Walnut Creek Metro Park	September 30 th , annually	WPD
Scoop the Poop	Mail information to 15 pet-friendly business and apartments	September 30 th , annually	WPD

 TMDL Measures – Four Streams <i>Residential Education</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Elementary School: Earth Camp and Earth School	Offer Earth Camp or Earth School to 100% of AISD Elementary Schools each school year	September 30, annually	WPD
Public Outreach-Stop the Blob!	4 outreach events City-wide	September 30, annually	AW
Provide multi-family household facilities informational materials related to Stop the Blob!	Offer to provide informational materials (door hangers, flyers, etc.) about proper FOG disposal to each multi-family household facility that has a grease related SSO.	Within a month of confirmation of a grease related SSO.	AW

 TMDL Measures – Four Streams* Homeless Encampments – FY22			
Activity/BMP	Quantifiable Target	Deadline	Department
Provide educational pamphlets to new individuals that are encountered	Provide 30 pamphlets	By September 30th, 2022	WPD
Maintain portable toilets in the Walnut and Waller Creek Watersheds	Maintain 4 portable toilets in Walnut and/or Waller Creek Watersheds	By September 30th, 2022	APH
WPD Project Manager Position	Fund 1 WPD full time employee for field responses related to homeless concerns.	Through September 30th, 2022	WPD

**These targets will be established Walnut Creek Waller and/or Waller Creek Watersheds. Significant homeless populations historically do not reside in Taylor Slough South or the Spicewood Tributary of Shoal Creek. Data also suggests that limited populations reside in the TMDL portion of Waller Creek.*

 TMDL Measures – Four Streams* Homeless Encampments – FY23			
Activity/BMP	Quantifiable Target	Deadline	Department
Maintain portable toilets in the Walnut and Waller Creek Watersheds	Maintain 4 portable toilets in Walnut and/or Waller Creek Watersheds	September 30th, 2023	APH
WPD Project Manager Position	Fund 1 WPD full time employee for field responses related to homeless concerns	Through September 30th, 2023	WPD
PARD Project Manager Position	Fund 1 PARD full time employee for field responses related to homeless concerns	Through September 30th, 2023	PARD

**These targets will be established Walnut Creek Waller and/or Waller Creek Watersheds. Significant homeless populations historically do not reside in Taylor Slough South or the Spicewood Tributary of Shoal Creek. Data also suggests that limited populations reside in the TMDL portion of Waller Creek.*

Gilleland Creek

A TMDL was adopted by the TCEQ in 2007 and approved by the EPA in 2009 for the Gilleland Creek Watershed due to concentrations of indicator bacteria exceeding the criteria used to evaluate attainment of contact recreation use. An I-Plan was approved by the TCEQ and EPA in 2011 and revised in 2017. The City of Austin has participated in its implementation since its inception.

The City Scoop the Poop campaign targets educational efforts in City of Austin parks and pet-friendly apartments in the City's jurisdiction. An evaluation was conducted of pet-friendly

apartments and City parks in the Gilleland Creek watershed, and none were located within Austin jurisdictional areas; therefore, controls were not developed for animal waste.

The following quantifiable TMDL goals have been established by the City for Gilleland Creek in the tables below.

 TMDL Measures – Gilleland Creek <i>Wastewater Infrastructure and OSSFs</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
OSSF Investigation and Enforcement Actions (customer driven)	Respond to 100% of complaints or notices of potential violation	September 30 th , annually	AW
OSSF Investigation of illegal discharges (customer driven)	Respond to 100% of complaints or notices of potential violation.	September 30 th , annually	AW
Respond to wastewater emergencies	Respond to overflow emergencies within 1 hour 95% of the time*	September 30 th , annually	AW
Inspect City Owned Lift Stations	Inspect 100% of City lift stations	Weekly	AW

*AW will always strive to maintain a 1-hour response time, 95% of the time; however, in the event of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, it will be attained 90% of the time.

 TMDL Measures – Gilleland Creek <i>Illicit Discharge Detection and Elimination</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Dry weather screening of outfalls with a diameter $\geq 36"$ in <i>Gilleland Creek</i> TMDL area (16 outfalls total)	20% (~3 outfalls) per year, until all outfalls have been screened once in the permit term	September 30 th , annually	WPD

 TMDL Measures – Gilleland Creek <i>Residential Education</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Public Outreach-Stop the Blob!	4 outreach events City-wide	September 30 th , annually	AW
Provide multi-family household facilities informational materials related to Stop the Blob!	Offer to provide informational materials (door hangers, flyers, etc.) about proper FOG disposal to each multi-family household facility that has a grease related SSO.	Within a month of confirmation of a grease related SSO.	AW

Wastewater Infrastructure BMPs for all TMDLs

Austin Water has reviewed the sewer mains located in the five TMDL watersheds. Using GIS spatial analysis, Austin Water has identified sewer mains along these creek areas that are completely or partially in the Critical Water Quality Zone (CWQZ). The sewer mains located in the CWQZ were deemed a priority for inspection due to their proximity to the creek and the potential of environmental impacts. As of November 2021, Austin Water has inspected a portion of the lines that are in the CWQZ in each of these five creek areas. These recent inspections, completed between January 2018 to the present, total 174,562 linear feet. After completion of the targets below, all lines in the CWQZ in these five creek areas will be inspected.

Austin Water has a Multi-Sensor Inspection (MSI) program for 24 inch and larger lines which will be implemented in the CWQZ of these five creeks. MSI is defined as established sewer inspection technology and includes Closed Circuit Television Camera (CCTV), Sound Navigation and Ranging (SONAR), Light Detection and Ranging (LIDAR), and Light Amplification by Stimulated Emission of Radiation (LASER). The sewer mains included as a part of the MSI inspections were identified and broken out as a separate column.

 TMDL Measures – All TMDL Watersheds <i>Wastewater Infrastructure</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
MSI inspection pipes of lines 24" and larger in the CWQZ in Gilleland Creek, Spicewood Springs, Taylor Slough South, Waller Creek, and Walnut Creek.	129,000 linear feet	By September 30 of 2024	AW
TV Inspection of the sewer pipes in the CWQZ in Gilleland Creek and Spicewood Springs	39,500 linear feet	By September 30 of 2022	AW
TV Inspection of the sewer pipes in the CWQZ in Taylor Slough South and Waller Creek	21,500 linear feet	By September 30 of 2023	AW
TV Inspection of the sewer pipes in the CWQZ in Walnut Creek	555,000 linear feet	By September 30 of 2026	AW

E-coli Bacteria Source Isolation (BSI) investigations in all TMDL Watersheds

WPD will implement a surface water sampling plan to primarily investigate stream reaches included in the TCEQ TMDL program and other streams that have been identified for elevated E.coli concentrations. Investigations will include longitudinal E.coli sampling to identify areas of increasing concentration for point source location (e.g. leaking infrastructure, cross connections, illicit use/inputs, etc.). In addition to (and in coordination with) the baseline annual quarterly E.coli monitoring, WPD will conduct at least two site/reach bacteria source isolation investigations within one or more TMDL stream reaches during the permit period. Locations which appear to be sources (e.g., outfalls, manholes, crossings of wastewater infrastructure, etc.), or are physically unsampleable due to confined space shall be supplemented with samples for nutrients and other physicochemical parameters and then referred to the appropriate authority for follow-up action (i.e., Spills Team for additional sampling, Field Ops for TV lines, AW for dye/smoke testing, etc.). Data collected for this additional Bacteria Source Isolation project is retained in perpetuity in the City of Austin Watershed Resource Monitoring database.

 TMDL Measures – All TMDL Watersheds <i>Bacteria Source Investigations</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Bacteria Source Isolation (BSI) additional E-Coli Sampling in selected Watersheds	Implement at least two site/reach bacteria source isolation investigations within one or more TMDL stream reaches during the permit period	August 2023	WPD

Benchmarks

iii. Identification of Benchmarks

The SWMP must identify a benchmark for any pollutant(s) of concern. Benchmarks are designed to assist in determining if the BMPs established are effective in addressing the pollutant(s) of concern in stormwater discharge(s) from the MS4 to the maximum extent practicable (MEP). The BMPs addressing the pollutant of concern must be re-evaluated on an annual basis for progress towards the benchmarks and modified as necessary within an adaptive management framework. These benchmarks are not numeric effluent limitations or permit conditions but are intended to be guidelines for evaluating progress towards reducing pollutant discharges consistent with the SWMP must identify a benchmark for any pollutant(s) of concern. Benchmarks are designed to assist in determining if the BMPs established are effective in addressing the pollutant(s) of concern in stormwater discharge(s) from the MS4 to the maximum extent practicable (MEP). The BMPs addressing the pollutant of concern must be re-evaluated on an annual basis for progress towards the benchmarks and modified as necessary within an adaptive management framework. These benchmarks are not numeric effluent

limitations or permit conditions but are intended to be guidelines for evaluating progress towards reducing pollutant discharges consistent with the benchmarks.

The exceedance of a benchmark is not a permit violation and does not by itself indicate a violation of instream water quality standards.

The benchmark values must be determined based on one of the following options:

- A) If the MS4, or a portion thereof, is subject to a TMDL that identifies a Waste Load Allocation(s) (WLA) for permitted MS4 stormwater sources, then the SWMP may identify it as the benchmark. Where an aggregate allocation is used as a benchmark, all affected MS4 operators are jointly responsible for progress in meeting the benchmark and shall jointly or individually develop a monitoring/assessment plan as required in Part II.C.2.a.vi.*
- B) Alternatively, if multiple MS4s are discharging into the same impaired watershed with an approved TMDL, with an aggregate WLA for all permitted stormwater MS4s, then the MS4s may combine or share efforts to determine an alternative sub benchmark value for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP must clearly define this alternative approach and must describe how the sub-benchmark value would cumulatively support the aggregate WLA. Where an aggregate benchmark is broken into sub-benchmark value (s) for individual MS4s, each permittee is only responsible for progress in meeting its sub-benchmark value.*

The City of Austin MS4 discharges into the same impaired watershed as other MS4s. An aggregate Waste Load Allocation (WLA) was defined for each stream segment in the TMDL. The tables below demonstrate the WLA for each stream segment. The City will evaluate BMPs annually for progress towards the benchmarks to determine if they are effective in addressing bacteria reductions.

Stormwater Waste Load Allocations (WLA_{SW}) for Five Total Maximum Daily Loads for Indicator Bacteria in Four Austin Streams

Stream Name	Assessment Unit	WLA_{SW} (Billion MPN/day)
Spicewood Tributary to Shoal Creek	1403J_01	11.33
Taylor Slough South	1403K_01	9.43
Walnut Creek	1428B_05	71.16
Walnut Creek	1428B_01 ¹	17.89
Walnut Creek	1428B_02 ¹	87.89
Walnut Creek	1428B_03 ¹	10.16
Walnut Creek	1428B_04 ¹	82.09
Waller Creek	1429C_02	50.72
Waller Creek	1429C_03	35.05

Stormwater Waste Load Allocations (WLA_{RegulatedStormWater}) for One Total Maximum Daily Load for Bacteria in Gilleland Creek

Stream Name	Assessment Unit	WLA_{SW} (cfu/day)
Gilleland Creek	1428C ²	1.51 x 10 ¹³

MCM 1. MS4 Maintenance Activities

WQ0004705000, Part III, Section B.2.a.

Structural Controls (i)

To the maximum extent practicable (MEP), the permittee shall continue to operate and maintain the MS4, including any stormwater structural controls, in such a manner as to reduce erosion and the discharge of pollutants.

The Watershed Protection Department (WPD) operates and maintains the City MS4, a storm water conveyance network composed of natural waterway, engineered channels, pipelines, stormwater controls, green infrastructure, and other structural controls. WPD is primarily responsible for the on-going operation of the MS4, which includes a variety of inspection and management activities to ensure conveyance of storm water runoff in a manner as to reduce erosion and the discharge of pollutants. These MS4 inspection and maintenance programs are part of a comprehensive drainage asset management plan to identify, evaluate and solve flooding, erosion, and water quality problems to ensure satisfactory operation of drainage facilities and maximize the life of the assets.

WPD conducts MS4 inspection and maintenance activities in an on-going manner throughout the year to maintain proper operation and conveyance of storm water runoff. The frequency of maintenance activities is based on standard best management practices (BMP) for the assets, results of routine inspections, and complaint driven investigation findings. Any necessary repairs identified during inspections are documented, work is prioritized, assigned, and completed in a manner to ensure functionality and compliance with City code and criteria.

BMP maintenance activity includes routine mowing and trash removal completed by contractors 2-6 times per year, depending on the site. This is a function of the Vegetation Control Program (VCP) which coordinates vegetation maintenance for identified open channels, stormwater controls, and green infrastructure assets. There is also additional trimming, seeding, brush control, and trash removal completed by city crews as needed through the Green Infrastructure Program.

Additional BMP maintenance activities include:

- removal of excessive vegetation

- completion of routine flow-line restoration activities
- mid-scale creek bank stabilization
- large-scale waterway rehabilitation projects that address significant erosion concerns.
- Open Waterways Program- removal of debris and obstructions from open channels and waterways (approximately 824 miles city-wide)
- Open Waterways Program- removal of debris and obstructions from culverts and bridges (approximately 1700 maintained units city-wide)

The WPD Closed Systems Program also conducts routine inspections and maintenance of the MS4 drainage pipeline system asset areas. There are approximately 30,000 inlets and 1,223 miles (6,457,440 ft) of pipeline in the City. Inlets, manholes and pipeline routes are cleaned and repaired as needed throughout the year based on asset performance, condition, and prioritization.

WPD Pond Inspection and Dam Safety Program staff conduct inspections of stormwater control measures (SCMs) associated with residential development and City facilities on a routine basis during the fiscal year. These full asset condition assessments include identifying and prioritizing structural issues, general maintenance needs, general site conditions, or excess vegetation inhibiting proper functionality.

WPD staff are also responsible for the identification and inspection of residential and commercial storm water controls located within the Barton Springs Zone. These SCM are inspected multiple times per year due to the sensitivity of the area and the overall complexity of the controls. WPD staff are also responsible for inspection of commercial, privately maintained, SCMs in both the full purpose and extra territorial jurisdiction every three years. Escalating enforcement is used to gain compliance with COA code and criteria for the privately maintained SCMs.

 MCM 1 Maintenance Activities Structural Controls			
Activity/BMP	Quantifiable Target	Deadline	Department
Inspect City maintained stormwater control measures	100% of the SCMs maintained by the WPD will be inspected every year.*	September 30 th , annually	WPD (PIDS)
Inspect privately owned stormwater control measures	Inspect 33% privately maintained SCMs per year.	September 30 th , annually	WPD (PIDS)
Inspect City maintained facilities within the BSZ and perform necessary maintenance.	100% of the SCMs maintained by the WPD within the BSZ will be inspected every year.*	September 30 th , annually	WPD (PIDS)
Inspect private sites subject to the BSZ operating permit	90% of private SCMs within the BSZ will be inspected every year.	September 30 th , annually	WPD (PIDS)
Open channel vegetation management	Routine maintenance on 70% of VCP sites	September 30 th , annually	WPD (VCP)
Perform inspections on storm drain inlets	Inspect and clean at least 2,500 inlets and remove collected sediments and other pollutants	September 30 th , annually	WPD (Closed Systems)
Perform inspections on storm drain pipeline system	Inspect and clean at least four miles (21,120 ft.) of the City of Austin storm drain pipeline system annually	September 30 th , annually	WPD (Closed Systems)
Routine vegetation management of City maintained stormwater control measures	Manage vegetation at 75% of SCMs managed under the VCP program**	September 30 th , annually	WPD (VCP)
Culvert and bridge obstruction management	Remove debris, sediment, vegetation, and obstructions from at least 500 culvert and bridge locations to maintain flood flow conveyance	September 30 th , annually	WPD (Open Waterways)
Open waterway obstruction management	Clear a minimum of 3 miles of open waterways of excess sediment and obstructions to maintain flood flow conveyance	September 30 th , annually	WPD (Open Waterways)

*PIDS will always strive to inspect 100% of designated SCMs; however, in the event of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, 90% of SCMs will be inspected.

**VCP will always strive to maintain 75% of SCMs; however, in the event of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, 70% of the goal will be attained.

Floatables (ii)

The permittee shall continue to implement a program to reduce the discharge of floatables (for example, litter and other human generated solid refuse) into the MS4. The permittee shall include source controls at a minimum and structural controls and other appropriate controls where necessary.

WPD operates a floatables program that has established litter collection sites at the mouth of two urban creeks, Shoal Creek and West Bouldin Creek, just prior to their discharge into Lady Bird Lake.

The Shoal Creek site was selected due to the abundance of impervious cover in the central-west Austin watershed. It is 11.2 miles in length and has a drainage area of 12.9 square miles of highly urbanized development. The creek passes through several City parks and a Hike and Bike Trail runs the length of the stream creating the potential for refuse to enter the stream. The land-use break down for the watershed is 54% residential, 19% business, 9% civic, 6% roadways and 12% undeveloped.

The West Bouldin Creek site is located on stream that winds through a primarily residential area of south-central Austin. It is three miles in length and has a drainage area of approximately 2.9 square miles and flows adjacent to several parks and small businesses before entering Lady Bird Lake at Auditorium Shores. The land-use breakdown for the watershed is 69% residential, 12% business, 4% civic, 3% roadways and 12% undeveloped. This stream was selected due to the abundance of impervious cover in the watershed, the numerous public access locations along the stream, the potential for refuse associated with human activities to enter the stream, and the possibility of increased public use in the future.

Table 1. Floatables Removal Site Locations

Watershed	Site No.	Monitoring & Collection Site Location	Land Use
Shoal Creek	1	Shoal Creek at Lady Bird Lake	Mixed Urban
West Bouldin Creek	2	West Bouldin Creek at Lady Bird Lake	Residential Urban

WPD conducts floatable inspection and maintenance activities throughout the fiscal year to ensure proper operation and effectiveness. Each boom is made of materials that allow the boom to float at the water surface and extends across the width of the creek. The boom is anchored on both sides of the shoreline to maintain its position in the creek and traps floating materials flowing toward the lake. WPD crews inspect the booms and remove all trapped floating material.

The material removed from each site is loaded into City dump trucks, hauled to an acceptable local landfill, and measured by weight at the disposal site.

 MCM 1 Maintenance Activities <i>Floatables</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Inspection of boom	Inspect 100% of monitoring booms sites	Weekly and after major storm events*	WPD
Cleaning of boom sites	Clean 100% of boom sites, if necessary	Monthly	WPD

*Inspections are not conducted around the holidays

Roadways (iii)

The permittee shall continue to operate and maintain public streets, roads, and highways to minimize the discharge of pollutants, including pollutants related to deicing or sanding activities.

In the effort to reduce the pollutants discharged into local waterways from streets and roadways, the City has developed a Roadways Program that addresses road repair, street cleaning, litter control, snow and ice response, and pollutants from traffic.

Public Works Department (PWD)

Road/Right of Way Maintenance and Repair

Routine maintenance of the streets, bridges, and ROW within the City of Austin are the responsibility of the PWD. The primary maintenance functions of the Street and Bridge Operations Division of PWD include, but are not limited to:

- repairs to potholes, surface replacements and pavement failures
- crack sealing
- overlay
- seal coating
- fog sealing
- slurry sealing
- maintenance of unpaved streets and alleys
- removal of debris from the Rights of Way (ROW)
- Bridge repair and management
- Utility excavation repairs, concrete structure repairs

PWD roadway maintenance projects require the use of erosion and sedimentation controls on all projects and will typically include:

- Temporary inlet protection

- Silt fence
- Rock berms
- Mulch logs and socks
- Stabilized construction entrances

PWD staff use approved cleaning materials, good house cleaning practices, proper waste disposal methods, and other best management practices (BMPs) to minimize non-storm water discharges. Over the five-year permit period the PWD will continue roadway maintenance with the implementation of the above BMPs as described.

Snow and Ice Response

The PWD has developed an emergency response program that uses barricading and sanding to effectively treat slick streets and roadways during rare ice and snow events. PWD staff monitors and evaluates road conditions and identifies streets and bridges that need to be sanded or barricaded to ensure public safety. Once it has been determined that ice or snow conditions are no longer a threat, PWD will dispatch staff to remove barricades and start street sweeping activities in the areas where sand was used.

Austin Resource Recovery (ARR)

Street Cleaning

Routine street cleaning in all areas of the City limits is the responsibility of ARR. ARR removes trash, litter, and dirt that has collected in the streets and gutters for health, safety, aesthetic, and water quality purposes. The ARR Street Cleaning Program uses regenerative air street sweepers in its operations to clean City streets.

Litter Control

The Litter Control Program of the City is the responsibility of the Litter Abatement Division. The Litter Control Program is implemented within the City limits and targets:

- City-owned property within the City limits for removal of trash, litter, and debris which has collected in the streets and the public rights-of-way.
- neighborhood cleanups as requested.
- brush and bulk pick-up; once per year (Brush and Bulk Collection Program).
- removal of dead animals from roadways and public property; as reported or found.

Litter is collected once a week from residences, recyclables are collected every other week, and compostable items such as food waste, grass clippings, and leaves are collected weekly and taken to a City composting facility where it is turned into compost.

 MCM 1 Maintenance Activities Roadways			
Activity/BMP	Quantifiable Target	Deadline	Department
Clean trash, leaves, dirt, and debris from roadways	Sweep 100% of City-owned public streets*	September 30 th , annually	ARR
Litter Removal from City owned containers	100% of City owned litter containers in the right-of-way of the downtown district will be emptied*	September 30 th , annually	ARR
Remove litter from City-maintained streets and rights of way	Respond to 100% of complaints in known problem areas*	September 30 th , annually	ARR
Remove trash and debris due to illegal dumping on public property	Removal of 100% of known illegally dumped trash and waste material on public property*	September 30 th , annually	ARR
Removal of dead animals on City-maintained public roadways seven days a week	100% removal of known dead animals on City-maintained roadways*	September 30 th , annually	ARR
Collection of residential brush and bulk on scheduled basis	100% collection of residential brush and bulk on a scheduled basis*	September 30 th , annually	ARR

*ARR will always strive to accomplish 100% of all goals; however, in the occurrence of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, 75% of streets will be swept and 90% of other goals will be achieved.

MCM 2. Post-Construction Stormwater Control Measures

WQ0004705000, Part III, Section B.2.b.i-iv.

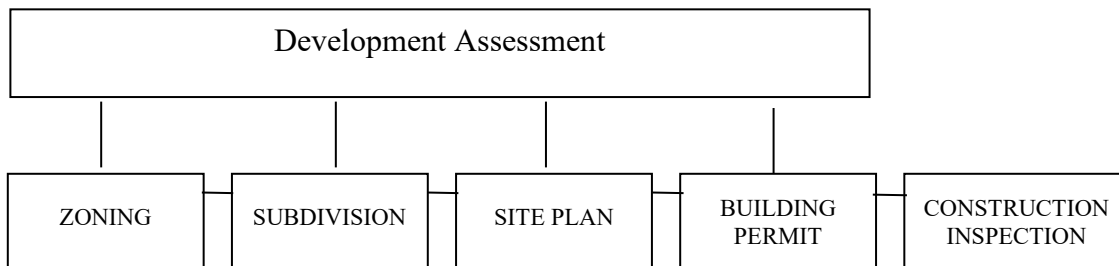
Areas of New Development and Significant Redevelopment (i)

The permittee shall continue implementation and enforcement of the controls to minimize the discharge of pollutants from areas of new development and significant redevelopment after construction is completed. The goals of such controls must include:

- A) limiting increases in erosion and the discharge of pollutants in stormwater as a result of new development; and*
- B) reducing erosion and the discharge of pollutants in stormwater from areas of redevelopment.*

Multiple departments implement the comprehensive over-sight of land development process requirements, regulatory compliance, and enforce programs to ensure the proper operation and maintenance of controls during new and redevelopment and after it is complete. Limiting erosion, flooding, and the discharge of pollutants to protect water quality within the City's jurisdiction is achieved through a number of ordinances, water quality regulations, and policies.

New development and redevelopment activities in the City of Austin's planning jurisdiction are subject to internal review for compliance with water quality regulations of the Austin City Code. Development or redevelopment of an individual parcel of land generally undergoes the following review process:



DSD development review staff are responsible for the environmental and water quality related aspects of project review, including:

- the detailed review of new subdivisions for compliance with City drainage standards with respect to stormwater control measures, drainage easements, and other proposed water quality facilities;
- the detailed review of specific stormwater control measures, drainage easements and drainage facilities in the construction plans for subdivisions, site development projects, and utility projects;
- the detailed review of Site Plan for compliance with environmental code and criteria.

See Tables 2-5 below for the site plan review process.

 MCM 2 Post-Construction Stormwater Control Measures <i>Areas of New Development and Significant Redevelopment</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Subdivision application review	Review 100% of applications received	Within 180 days of receipt of subdivision application	DSD
Zoning application review	Review 100% of applications received	Within 181 days of receipt of zoning application	HPD
Site plan and school plan application review	Review 100% of applications received	Within 180 days of receipt of site plan or school plan application	DSD
General Permit application review	Review 100% of applications received	Within 180 days of receipt of application	DSD
Operating Permit Barton Springs Zone application review	Review 100% of applications received	Within 180 days of receipt of site plan application	WPD

Comprehensive Planning Process (ii)

The permittee shall continue to implement a comprehensive master planning process (or equivalent) to include all new development and or sale that will result in the disturbance of one acre or more. redevelopment projects that disturb one acre or more of land, including projects less than one acre that are part of a larger common plan of development.

The City continues to implement a master planning process that minimizes the discharge of pollutants to the MS4. The Housing and Planning Department (HPD) is responsible for coordinating comprehensive planning in the City. Comprehensive planning is done to assure orderly growth, protect environmentally sensitive areas, and maintain an efficient infrastructure within the City's planning jurisdiction, the area within Austin City limits and extraterritorial jurisdiction. The land use and population information produced by HPD is utilized by several City departments for comprehensive planning activities. Planning activities include, but are not limited to the following:

- ii. Implementation of the Imagine Austin Comprehensive Plan through the eight identified priority program teams
- iii. Watershed, land use and natural resource studies conducted by the Watershed Protection Department (WPD) which is responsible for the development of water quality control programs, planning and design for flood control structures, erosion control and prevention projects, and implementation of regulatory controls

- iv. Wastewater facility planning is conducted on an on-going basis by the Austin Water Utility, as part of the City's Capital Improvements Program.
- v. Transportation planning conducted by the Austin Transportation Department (ATD), which includes a nexus with watershed preservation programs identified in the Austin Strategic Mobility Plan (ASMP) under Water and Stormwater Policy.
- vi. The base-map maintenance program provided by the Geographic Information Systems Section of the City's Communication and Technology Management Office, which is directed at building and maintaining a uniform land use base map to be used by all utilities and City departments, as one of several on-going planning support programs. Additional mapped data available includes topography, floodplains, geological features, and political jurisdictions.

The Imagine Austin Comprehensive Plan was adopted by the Austin City Council in June 2012. Two major themes of Imagine Austin are “Complete Communities” and “Sustainability.” These themes informed subsequent planning efforts, like the ASMP, that further enshrined watershed preservation objectives as well as an implementation effort such as the ongoing task of updating the City’s Land Development Code. See <http://www.austintexas.gov/departments/imagine-austin>

Regulatory Mechanism (iii)

The permittee shall evaluate the existing SWMP as necessary to ensure that this MCM includes a regulatory mechanism, such as an ordinance, to implement and enforce the new requirements of this program and shall ensure that the SWMP includes strategies for structural and non-structural controls (i.e., BMPs) appropriate for the community. In addition, the permittee shall provide for adequate long-term operation and maintenance of BMPs.

The Austin City Council passed a new Watershed Protection Ordinance October 2013 to improve creek and floodplain protection; prevent unsustainable public expense on drainage systems; and simplify development regulation where possible. See Tables 5 and 6 to review water quality regulations and BMPs. See Table 7 for Watershed Protection Ordinance Regulations Summary.

Table 2. City of Austin Zoning Process within the City Limit

Submittal	To DSD Intake
Environmental Regulation Review Elements	<i>Development:</i> Intensity Density
Review Authority	Planning Commission Environmental Commission Zoning and Platting Commission
Notice	Property owners within 500 feet Registered neighborhood organizations within 500 feet Utility Customers within 500 feet Public hearings notification through sign posting and newspaper advertisements
Approval Authority	City Council
Product	Council-adopted zoning ordinance

Table 3. City of Austin Subdivision Development Process within City Limits and ETJ

Submittal	To DSD Intake
Environmental Regulation Review Elements	<i>Design and Engineering:</i> - Lot size and layout - Drainage and floodplains - Erosion Hazard Zone - Runoff controls and water quality controls <i>Environmental:</i> - Water quality zones - Impervious cover calculations - Non-structural water quality controls - Structural water quality controls - Critical environmental features - Existing trees - Significant slopes greater than 15% - Grading over 4 feet
Review Authority	DSD Environmental Commission Planning Commission Zoning and Platting Commission
Notice	Property owners within 500 feet Registered neighborhood organizations within 500 feet Utility customers within 500' Public hearings notification through sign posting and newspaper advertisements (preliminary plan only)
Approval Authority	Planning Commission Zoning and Platting Commission DSD & HPD Directors
Product	Preliminary plan Final plat Released subdivision construction plan

Table 4. City of Austin Site Plan Process*

Submittal	To DSD Intake
Environmental Regulation Review Elements	<i>Design:</i> - Intensity - Density - Setbacks <i>Environmental:</i> - Water quality zones - Impervious cover calculations - Non-structural water quality controls - Structural water quality controls - Critical environmental features - Existing trees - Significant slopes greater than 15% - Grading over 4 feet - Landscape requirements <i>Construction:</i> - Drainage and floodplains - Erosion Hazard Zone - Runoff controls and water quality controls
Review Authority	DSD Environmental Commission Planning Commission Zoning and Platting Commission
Notice	Property owners within 500 feet Registered neighborhood organizations within 500 feet Utility customers within 500 feet Public hearings notification through sign posting and newspaper advertisements
Approval Authority	Planning Commission for: - Hill Country Roadway site plans - Conditional use site plans - Variances Administrative approval for all others if complying with City Code

Table 5. Summary of Water Quality Regulations in the Austin City Code, Chapter 25-8 Relative to the Watershed Protection Ordinance (Applicable Within City and ETJ)

General Standards – Chapter 25-8, Subchapter A	
Critical Water Quality Zones (CWQZ)	Establishes CWQZs along creeks with drainage basins over 64 acres as well as the shorelines of lakes and rivers. The geometry of the buffer can vary with the size of the contributing drainage area and the watershed classification. Most waterways are classified as minor, intermediate, or major. Development or alterations within the CWQZ is extremely limited,
Water Quality Transition Zones (WQTZ)	Established WQTZs parallel to all CWQZs, except for waterways in the Urban and Suburban watersheds. Width differs depending on type of waterway. Limited development and reduced impervious cover allowed within WQTZs depending on watershed category.
Construction on Slopes	Prohibits roadways or driveways on slopes over 15% unless providing access to flatter slopes. Prohibits structures on slopes over 25%. Allows structures on slopes between 15-25% if less than 10% impervious cover on slopes of 15-25% with containment and terracing.
Erosion & Sedimentation Controls (ESC)	Requires ESC for all construction and development within all watersheds. ESC plan must comply with standards in the City of Austin Environmental Criteria Manual.
Clearing and Temporary Site Disturbances	Limits survey width to 15 feet. Limits length of time between rough cutting and surfacing/stabilization to 18 months. Limits roadway clearing to twice the surface width. Required in all watersheds.
Cut and Fill	Prohibits cut or fill over four feet except for within roadway rights-of-way, pond construction, and for structural excavation. Not applicable within Urban watersheds.
Water Quality Controls	Requires water quality controls to capture and treat runoff from all contributing areas in all watersheds. Innovative runoff management practices must be reviewed and approved by WPD. Requires water quality controls for all development in the Barton Springs Zone and for greater than 8,000 square feet of impervious cover in all other watersheds
Optional Payment-In-Lieu of Structural Controls	Allows developer the option to request authorization to deposit a cash payment with the City in lieu of constructing onsite structural water quality controls. Applicable only with Urban watersheds.
Floodplain Modification	Floodplain modification is permitted if the modifications are necessary to protect public health and safety; would provide a significant, demonstrable environmental benefit; are necessary for development allowed in the CWQZ; or are located outside of the CWQZ in an area determined to be in poor or fair condition by a functional assessment of floodplain health.
Impervious Cover	Impervious cover is defined as the total area of any surface that prevents the infiltration of water into the ground, with exceptions for things like trails, water quality controls, and pools. Limits in upland areas and water quality transition zone vary by watershed classification.

Table 5. Continued

Redevelopment Exception	Properties that meet all the requirements of the redevelopment exception (e.g., no increase in impervious cover, install water quality controls) do not have to comply with the rest of the requirements of Section 25-8 Subchapter A. The Redevelopment Exception varies by watershed regulation area.
Spoils Disposal	Prohibits spoils sites in 100-year floodplains or on slopes over 15%, with some exceptions. Sites require reasonable access, restoration, and revegetation. Required in all watersheds.
Critical Environmental Features (CEFs)	Requires 150-foot setbacks from bluffs, springs, canyon rimrocks, caves, sinkholes, karst features, and wetlands. Setbacks may be administratively reduced upon inspection by staff geologists/biologists in WPD. No wetland protection in the central business district.
Wastewater Treatment	Wastewater treatment by land application prohibited on slopes greater than 15 percent, in a critical water quality zone, in a 100-year floodplain, on the trunk of surveyed trees, in a CEF buffer, or during wet weather conditions.
Storm Sewer Discharges	Allows issuance of a certificate of occupancy only if it is in compliance with requirements of Discharges to Storm Sewers or Watercourses of the City Code.
<i>Additional Standards</i>	
Environmental Resource Inventory	Requires an environmental resource inventory in accordance with the Environmental Criteria Manual regarding hydrology, vegetation, wastewater treatment, critical environmental features, and storm water runoff and pollution abatement.
Overland Flow	Requires maintenance of overland flow patterns, natural drainage features and dispersion of runoff to sheet flow whenever possible.
Blasting	Restrictions placed on blasting for projects in CWQZs or WQTZs over the Edwards Aquifer Recharge Zone and within 300 feet of critical environmental features.
Industrial Uses	Requires pollutant attenuation plans and refers to City Code storage design requirements for hazardous materials. Requires detention of storm water onsite and filtration before discharge.
Roadways and Driveways	Requires alternative designs for streets in water quality transition zones, minimum lot sizes and lot frontage and reasonable driveway access relative to design, grades and joint use.
Wastewater Treatment	Wastewater treatment by land application prohibited on slopes greater than 15 percent, in a critical water quality zone, in a 100-year floodplain, on the trunk of surveyed trees, in a CEF buffer, or during wet weather conditions.
Storm Sewer Discharges	Allows issuance of a certificate of occupancy only if it is in compliance with requirements of Discharges to Storm Sewers or Watercourses of the City Code.

Table 6. Additional Standards in the Barton Springs Zone

<i>Additional Standards for Watersheds in the Barton Springs Zone</i>	
Impervious Cover Limits	All percentages listed are maximums allowable values calculated on a net site area basis except for suburban watersheds which are calculated on a gross site area basis. In the Barton Springs Zone watershed classification, 15% is allowed over the Recharge Zone, 20% is allowed over the Contributing Zone within the Barton Creek Watershed, 25% is allowed over the remaining portion of the Contributing Zone.
Pollutant Load Restrictions	Requires that runoff be managed and treated such that no increases occur in the average annual loadings of total suspended solids, total phosphorus, total nitrogen, chemical oxygen demand, total lead, cadmium, E. coli, volatile organic compounds, total organic carbon, pesticides, and herbicides from the site.
Pollution Reduction Measures	Impervious cover must be reduced if needed to assure compliance with pollutant load restrictions.
Critical Water Quality Zones (CWQZ)	Boundary of the CWQZ shall not be less than 200 feet from the centerline of a major waterway, or less than 400 feet from the centerline of the main channel of Barton Creek. No pollution control structures or residential or commercial construction may be permitted within the CWQZ.

Note: Pre-existing and non-conforming development approvals are subject to the grandfathering provisions of ordinance No. 20140612-084 which may be amended from time to time.

Table 7. City of Austin Watershed Protection Ordinance Regulations Summary Table
Effective: October 28, 2013 **Red Text = Change from Previous Requirements**

REGULATORY CATEGORY	ZONE	DESIRED DEVELOPMENT ZONE			DRINKING WATER PROTECTION ZONE		
		Urban	Suburban City Limits	Suburban N. Edwards / ETJ	Water Supply Suburban	Water Supply Rural	Barton Springs Zone
Impervious Cover (IC)	Calculation Basis	Gross Site Area	Gross Site Area	Gross Site Area	Net Site Area	Net Site Area	Net Site Area
	Transfers Allowed	No	Yes	Yes	Yes	Yes	No
	Uplands: Max Pct IC	Max Pct	Max Pct Std / w Transfer	Max Pct Std / w Transfer	Max Pct Std / w Transfer	Max Pct Std / w Transfer	Max Pct [No Transfers]
	Single-Family Res. (Lot > 5750 ft²)	No Watershed IC Limit: Zoning Limits only	50% / 60%	45% / 50%	30% / 40%	1 unit per 1 ac.	R / BC / C ** 15% / 20% / 25% for all uses
	Single-Family Res. (Lot < 5750 ft²)		55% / 60%	55% / 60%		1 unit per 2 ac.*	
	Multi-Family Residential Max Pct		60% / 70%	60% / 65%	40% / 55%		
	Commercial Max Pct		80% / 90%	65% / 70%			
						* Min lot ¼-acre; ½-acre with transfers; Clustering: 1 unit/ac max; 2 units/ac w transfer	** R = Recharge Zone BC = Barton Creek Contributing C = Other Contributing
	WQ Transition Zone						
	Max Pct IC (outside floodplain)	Not Applicable	Not Applicable	Not Applicable	18%	1 SF unit / 3 acres	1 SF unit / 3 acres
Waterway Classifications	Critical WQ Zone:	None (except road crossings)	ne (except limited road crossings)	ne (except limited road crossings)	ne (except limited road crossings)	ne (except limited road crossings)	ne (except limited road crossings)
	Max Pct IC	None within 150 to 300 ft radius	None within 150 to 300 ft radius	None within 150 to 300 ft radius	None within 150 to 300 ft radius	None within 150 to 300 ft radius	None within 150 to 300 ft radius
	Critical Environmental Feature (CEF) Max Pct IC						
Waterway Setbacks	Minor						
	Intermediate	64 acres	64 – 320 acres	64 – 320 acres	64 – 320 acres	64 – 320 acres	64 – 320 acres
	Major		320 – 640 acres	320 – 640 acres	320 – 640 acres	320 – 640 acres	320 – 640 acres
	Notes	Urban creeks not classified	over 640 acres	over 640 acres	over 640 acres	over 640 acres	over 640 acres
Water Quality Controls							
	Critical Water Quality Zone						
	Minor		100 ft.	100 ft.	50 – 100 ft.	50 – 100 ft.	50 – 100 ft.
	Intermediate	50 – 400 ft.	200 ft.	200 ft.	100 – 200 ft.	100 – 200 ft.	100 – 200 ft.
	Major		300 ft.	300 ft.	200 – 400 ft.	200 – 400 ft.	200 – 400 ft.
	Notes	No CWQZ Downtown					(Barton mainstem 400 ft.)
		Between min and max width, coincides with the 100-year fully-developed floodplain	uffer averaging" allow buffers by up to one-half with a corresponding expansion	uffer averaging" allow buffers by up to one-half with a corresponding		Between min and max width, coincides with the 100-year fully-developed flood plain	
	Water Quality Transition Zone						
	Minor				100 ft.	100 ft.	100 ft.
	Intermediate	Not Required	Not Required	Not Required	200 ft.	200 ft.	200 ft.
Water Quality Controls	Major				300 ft.	300 ft.	300 ft.
	Variances from Buffers	Administrative under certain conditions	Must apply for Land Use Commission variance	Must apply for Land Use	Must apply for Land Use Commission variance.		
Water Quality Controls	Treatment Standard	sedimentation/ Filtration	imentation/ Filtration	imentation/ Filtration	imentation/ Filtration	imentation/ Filtration	Non-Degradation
	When Required	If new/redeveloped if IC > 8,000 sq. ft.	If new/redeveloped if IC > 8,000 sq. ft.	If new/redeveloped if IC > 8,000 sq. ft.	All new/redeveloped if IC > 8,000 sq. ft.; all IC in WQTZ	All new/redeveloped if IC > 8,000 sq. ft.; all IC in WQTZ	All development
	Allowed in Creek Buffer	CWQZ = Yes per ECM WQTZ = N/A	WZ = Yes per ECM WQTZ = N/A	WZ = Yes per ECM WQTZ = N/A	CWQZ = No WQTZ = Yes per ECM	CWQZ = No WQTZ = Yes per ECM	CWQZ = No WQTZ = Yes per ECM
	Alternative Strategies Allowed	Yes	Yes	Yes	Yes	Yes	No
	Optional Payment-in-Lieu	Yes	No	No	No	No	No

key: CWQZ = Critical Water Quality Zone; ETJ = Extra-Territorial Jurisdiction; IC = Impervious Cover; SF = Single-Family Residential; WQ = Water Quality; WQTZ = Water Quality Transition Zone

Stormwater Control Measures (iv)

iv. The permittee shall assess the impacts on the receiving water for all flood control projects. Where feasible, new flood control structures must be designed, constructed, and maintained to provide erosion prevention and pollutant removal from stormwater. If applicable, the retrofitting of existing structural flood control devices to provide additional pollutant removal from stormwater shall be implemented to the maximum extent practicable.

The City continues to implement programs that assess the impacts of flood control projects on receiving waters by evaluating any proposed storm water structural control projects. The City's existing flood control facilities are also evaluated to determine if retrofitting is feasible.

Historically, many structural flood control devices have been implemented through the City's Regional Storm Water Management Program (RSMP). The WPD evaluates all the existing flood control structures in addition to other urban sites as potential flood/water quality retrofit locations.

Current code and criteria require new development to implement flood control, water quality control, and non-erosive conveyance as enforced by DSD. When it is determined that either flood control or water quality control is not technically feasible, applicants may participate in either or both the RSMP and USCF programs in lieu of providing regulatory controls.

Future Flood Control Review Program

In the effort to assess the potential water quality impacts from proposed flood control projects, the City of Austin uses both regulatory design requirements and technical review to evaluate both municipal and private flood control projects.

City of Austin Land Development Code (LDC) currently requires the submittal of an Environmental Assessment (EA) to WPD for any proposed development located in a floodplain. This includes both City and private flood control projects such as large regional detention facilities and floodplain modifications. The requirements of the EA include a Hydrogeological Report which must demonstrate that the proposed drainage patterns resulting from the construction of the project will protect the quality and quantity of recharge at significant points. The EA must also include a Vegetation Report, a Wastewater Report, and a Pollutant Attenuation Plan for any proposed industrial use that is not completely enclosed in a building.

For both City and private flood control projects, the flood control facility design, and the accompanying EA are submitted with the permit application and reviewed by WPD staff. The proposed project must also comply with the requirements of the City's LDC, Environmental

Criteria Manual (ECM) and Drainage Criteria Manual (DCM). LDC and ECM codes and rules require project impacts to water quality and riparian systems to be evaluated and minimized. The DCM outlines design, performance, and safety criteria for storm water management. Currently, all WPD flood control projects meet LDC, ECM and DCM requirements and include evaluations of opportunities to incorporate erosion control and water quality design features.

Incorporation of Multi-Purpose Functions in City Infrastructure

The WPD implements post construction stormwater control measures (SCMs) to improve areas that developed prior to modern regulations. These watershed retrofit projects include SCMs intended to reduce pollution, flood risk, and prevent erosion caused by existing, uncontrolled development.

The WPD will continue to evaluate stormwater control facilities utilizing existing asset condition assessment and maintenance records along with the following evaluation criteria:

- General size and layout
- Drainage area size and pollutant load
- Opportunities for BMP integration with existing features

Bio-retention systems, permanent wet ponds, and extended detention are a few examples of water quality technologies that may be considered for use at each identified facility as determined practicable by the City. Erosion, detention, and base flow augmentation may also be considered for use in combination with these water quality technologies. Cost effectiveness of retrofit activities will be considered during the evaluation process to determine implementation priority. Evaluations and consideration of flood/water quality retrofit potential will continue at each of the identified structures throughout the five-year permit period. No specific schedule will be set for the retrofit evaluation process as it will be done in conjunction with other planning processes.

 MCM 2 Post Construction Stormwater Controls <i>Stormwater Control Measures</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Evaluate multi-purpose functions in WPD infrastructure projects	The incorporation of multi-purpose functions (water quality, flood, erosion) will be evaluated in 100% of WPD watershed infrastructure projects.	September 30 th , annually	WPD
Dam Safety Inspections	Inspect 100% of the 33 TCEQ regulated dams under the supervision of a P.E	September 30 th , annually	WPD

MCM 3. Illicit Discharge Detection and Elimination

WQ0004705000, Part III, Section B.2.c.

IDDE Investigations & Procedures (i,vii), Spill Prevention & Response(xiv)

i. The permittee shall prohibit illicit non-stormwater discharges from entering the MS4. The permittee shall continue to develop a program, including a schedule, to detect and eliminate illicit discharges and improper disposal into the MS4. This program shall include:

- A) A description of the program, including inspections, to implement and enforce an ordinance, orders, or similar means to prevent illicit discharges to the MS4;*
- B) A description of procedures to conduct on-going field screening activities, including areas or locations that will be evaluated by such field screens;*
- C) A description of procedures to be followed to investigate portions of the MS4 that indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;*
- D) A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;*
- E) A description of a program to promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges from the MS4;*
- F) A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and*
- G) A description of controls to limit infiltration of seepage from municipal sanitary sewers to the MS4 where necessary.*

The City of Austin prohibits illicit discharges to the MS4 through ordinances, inspection programs, education, and enforcement. Multiple departments including the Watershed Protection Department (WPD), Austin Water (AW), Austin Resource Recovery (ARR), and Austin Fire Department (AFD) implement measures to detect and eliminate illicit discharges and improper waste disposal in the MS4.

WPD responds to surface water quality complaints and hazardous and non-hazardous materials spills to protect water quality protection. AFD responds to hazardous material spills to protect human health and safety. AFD also responds to certain non-hazardous material releases that may be a threat to life, property, or the environment. The TCEQ is responsible for regulating disposal of hazardous waste.

Watershed Protection Department Detection

WPD's Spill Response program identifies illicit discharges to the storm sewer system and receiving waterways. Illicit discharges include spills of hazardous and non-hazardous

materials that might threaten the water quality of receiving waterways in Austin's planning jurisdiction. Discharges may occur through illicit plumbing connections to the City's storm sewer system, deliberate dumping, or accidental spills.

WPD techniques for detecting illicit discharges include:

- Receiving reports from citizens.
- Receiving referrals, notifications, and requests from external agencies and partnering City departments.
- Conducting inspections of industrial and high-risk facilities.
- Screening storm sewer outfalls during dry weather periods, targeting areas with relatively higher densities of historic spills and with TMDLs.
- Monitoring and surveillance of known chronic problem areas.
- Investigating unusual spikes in surface water quality monitoring results.

WPD responds to detections of illicit discharges by tracking and eliminating illicit connections, enforcing state and local statutes regarding illegal discharges, and responding to accidental spills to oversee material containment, clean-up, and disposal.

Response and Investigation Procedures(i)

WPD maintains a rapid response capability by having trained investigators on-call 24-hours a day. WPD Spill Response staff maintain training in the following areas:

- Hazardous Materials Operations and Emergency Response 40-hour course (satisfies OSHA 1910.120)
- In house training using staff resources, training manuals, videos, WPD safety staff and various reference manuals.
- Conferences, workshops, and seminars related to spill clean-up techniques, disposal of contaminated materials, federal and state environmental regulations, emergency response, investigation techniques, and confined spaces.

The City of Austin 24-Hour Pollution Hotline receives notification of environmental emergencies from citizens and external agencies. WPD also receives notifications directly from partnering departments, including: AFD, Austin Water, Austin Energy, Austin Code, Austin Public Health, and Austin 3-1-1. Standard procedures for illicit discharge and spill response investigations are summarized in Figure 8 and Figure 9.

WPD investigates illicit discharges after receiving a complaint, responding to an emergency incident, or finding dry weather flows. Investigations are classified into two different categories: priority incidents and non-priority incidents. "Priority incidents" are generally emergency spill incidents and situations that pose an immediate threat to water resources. "Non-priority incidents" are general environmental complaints that do not pose an immediate threat to water

resources. Problems outside WPD's regulatory jurisdiction are referred to other departments or agencies for action as appropriate.

Investigations of suspect facilities or activities include inspection of the location and connections to the MS4 to determine if an illicit discharge exists. Investigators trace the path of any observed illicit discharge to identify the source, cause, and responsible party (RP). If a potential illicit plumbing connection is located, dye testing may be conducted to confirm the connection. WPD issues directives for corrective actions to the RP to obtain compliance with City code requirements. If compliance is not achieved, enforcement procedures are implemented (see 4. Enforcement Procedures (vii)).

Illicit discharge and spill response investigations gather and record information such as field observations, photographs, analysis results, sources, causes, responsible party information, correspondence, Safety Data Sheets, waste disposal manifests. Violations, areas of concern, corrective actions issued, and the final resolution are stored in a computer database that can be queried by address, watershed, facility name, and other parameters.

City Code of Ordinances (vii)

Water Quality Regulations - Title 6, Chapter 6-5. Water Quality

This chapter contains regulatory language that prohibits the discharge of waste into storm sewers or water courses. In addition, provisions for inspection by the City and penalties due to violations are included in this chapter.

Watershed Regulations - Title 25, Chapter 25-8. Environmental

This chapter contains language that prohibits illegal connections to the storm sewer system or any other illicit discharges at newly constructed facilities. Section 25-8-362 (Storm Sewer Discharge) of the Chapter states: "A certificate of occupancy may not be issued for development subject to this subchapter unless the development is in compliance with Chapter 6-5, Article 51 (*Discharges Into Storm Sewers Or Watercourses*).

Enforcement Procedures (vii)

Types of Violations

Identified violations to water quality regulations are divided into three types based on severity, ranging from C (least severe) to A (most severe). Repeat violations escalate to higher categories. The category of violation determines enforcement actions.

Category C violations are a noncompliance not otherwise designated as a higher priority violation in Category A or Category B definitions. For Category C violations, a Responsible Party (RP) will first be given an opportunity to come into compliance via verbal Notice of Violation (NOV). The verbal NOV will specify a compliance due date, solicit a compliance schedule, and/or acknowledge violations have been resolved. Failure to correct a Category C violation within the directed time frame will result in that violation being escalated to a Category B violation. Similarly, three Category C violations within a one-year period will escalate a violation to a Category B violation. Example Category C violations are unauthorized discharges or spills which impact or have the potential to impact vegetation, soil, asphalt, concrete, or impervious cover. In addition, the discharge or spill has not resulted in a significant impact to water quality and the violation is not a Category A or B violation.

Category B violations are violations which have impacted or have the potential to impact water quality. For Category B violations, a RP will first be given an opportunity to come into compliance via written NOV. The NOV will specify a compliance due date, solicit a compliance schedule, and/or acknowledge violations have been resolved. Failure to correct a Category B violation within the directed time frame will result in that violation being escalated to a Category A violation. Similarly, three Category B violations within a five-year period will escalate a violation to a Category A violation. Example Category B violations are unauthorized discharges or spills impacting or having the potential to impact stormwater infrastructures or watercourses. In addition, the discharge or spill has not resulted in a significant impact to water quality and the violation is not a Category A or C violation.

Category A violations are egregious or cause significant environmental impact; they require automatic initiation of formal enforcement actions when discovered. By default, Municipal Court Prosecution or a Referral to Another Enforcement Agency is initiated upon finding a Category A violation. Example Category A violations are unauthorized discharges or spills which result in a significant documented effect on water quality, human health, safety, or a serious impact to the environment. Willful or intentional unauthorized discharges or spills to a waterway also result in a Category A violation.

Municipal Court Prosecution

WPD has multiple staff members with the training and authorization to file Class C misdemeanors in Municipal Court. These may take the form of an immediate citation which is

written on the site of an investigation and given to a RP or may be submitted as a complaint affidavit to a court clerk. In either case, evidence of the violation including a timeline, photo documentation of the violation(s), property records, and any other relevant information (copies of written NOV, correspondence with RP, corporate ownership records, etc.) is submitted to the court so that a prosecutor with the City's Law Department staff can proceed with a case against the violator and any responsible party(s).

The City's Law Department prosecutes environmental cases as necessary in Municipal Court. In most cases Chapters 25-8 (Land Development Code) and 6-5 (Water Quality Code) of the Austin City Code are cited as the legal mechanism for prosecution. Violations of Chapters 6-5 and 25-8 are Class C misdemeanors, finable up to \$2,000 per violation. The penalty and fines imposed by the Municipal Court Judge are generally based upon the recommendation of the City Prosecutor, but in many cases a plea bargain is negotiated, and a "deferred disposition" verdict is reached.

Referral to Another Enforcement Agency

In certain situations, WPD filing Class C Misdemeanor charges in Municipal Court may not be the ideal mechanism for formal enforcement. The most common example of this is when multiple agencies have overlapping authority or jurisdiction. For instance, if a construction site within COA jurisdiction had an illicit discharge which required enforcement, the case might be referred to the Development Services Department (DSD) as the agency within COA which has primary responsibility for construction related activities. These agencies commonly include other departments within COA, county agencies, and state agencies.

If WPD finds criminal or malicious intent associated with a water quality violation, the investigation may be referred to the appropriate County Attorney's Office for possible criminal prosecution under Texas Water Code Section 7.145. In most cases this will be Travis County Attorney's Office, both because the majority of the City of Austin lies within Travis County and because as the seat of government, Travis County Attorneys are able to file charges anywhere in the state. WPD provides the County Attorney investigators with evidence of the violation, reports, photo documentation and correspondence with the responsible party. The County Attorney then reviews the evidence and decides if they will pursue criminal charges in County court. A violation of Texas Water Code 7.145 is a Class B misdemeanor.

Finally, if an investigation of a TCEQ permitted activity or site results in a violation requiring formal enforcement, the investigation may be referred to the TCEQ for possible prosecution under Texas Water Code Section 7.145.

Allowable Non-Stormwater Discharges (iii-vi)

ii. For the purposes of this permit, the following discharges need not be addressed as illicit discharges by the permittee or prohibited from entering the MS4:

- A) discharges regulated by a separate NPDES or TPDES permit;*
- B) discharges for which an NPDES or TPDES permit application has been submitted or neither an NPDES nor TPDES permit is required; and*
- C) miscellaneous non-stormwater discharges that are not significant contributors of pollutants to the municipal separate storm sewer system (MS4).*

iii. The SWMP must identify all categories of miscellaneous, non-stormwater discharges that may be discharged into the MS4 and include a description of any local controls or conditions placed on discharges exempted from the prohibition on non-stormwater.

WPD accepts requests for non-stormwater discharges to the MS4. Discharge requests are reviewed on a case-by-case basis and allowed, allowed with conditions, or denied. The City of Austin does not prohibit the following miscellaneous, non-stormwater discharges to the MS4:

- a) discharges from emergency fire-fighting activities and uncontaminated fire hydrant flushings;
- b) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated, and discharges are not expected to adversely affect aquatic life;
- c) natural springs, diverted stream flows, or flows from riparian habitats and wetlands;
- d) uncontaminated pumped groundwater, rising groundwater, or groundwater infiltration;
- e) air conditioning condensation that is uncontaminated by water from a cooling tower or any other source of pollutants;
- f) uncontaminated water from crawl space pumps, footing drains, foundation drains, or sump pumps;
- g) lawn watering and similar irrigation drainage, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- h) water from the routine washing of streets, sidewalks, parking lots, driveways, or exteriors of buildings conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed);
- i) individual residential vehicle washing, where detergents and soaps are not used;
- j) wash waters using only potable water, and which are similar in quality and character to street wash water or individual residential vehicle washing but without the use of detergents or surfactants;
- k) dechlorinated swimming pool discharges (excluding pool filter backwashes) that are free of visible algae;
- l) other allowable non-stormwater discharges listed in 40 CFR 122.26(d)(2)(iv)(B)(1);

- m) other allowable non-stormwater discharges listed in the TPDES Construction General Permit No. TXR150000 and TPDES Multi--Sector General Permit No. TXR050000; and
- n) other similar occasional incidental non-stormwater discharges.

Overflows and Infiltration (viii)

The permittee shall continue to implement controls where necessary and feasible to prevent dry weather and wet weather overflows from sanitary sewers into the MS4. The permittee shall continue to limit the infiltration of seepage from municipal sanitary sewers into the MS4.

Austin Water (AW)

The City's wastewater collection system is operated and maintained by AW. AW is responsible for inspection and repair of wastewater infrastructure within the utility's service area.

Wastewater Pipelines

AW has an active Operation and Maintenance (O&M) program that includes cleaning, TV inspection, and smoke testing to clean and identify public and private defects in the collection system. AW continues to repair and improve the collection system and has an emergency response plan that includes emergency crews and contractors available 24 hours a day, 7 days a week.

The purpose of cleaning and TV inspection is to protect the investment made in the sanitary sewer system, restore designed capacity of the sewer system, reduce the number of overflows to protect the environment, and to prevent any interruptions in sewer service. Cleaning and TV inspection a best management practice (BMP) outlined in the United States Environmental Protection Agency's proposed Capacity, Management, Operation and Maintenance (CMOM) guidelines. Sewer cleaning removes accumulated debris and needs to be done routinely for the system to function properly and prior to televising for inspection to be effective. Steps involved in sewer cleaning includes dislodging materials, removing materials from the sewer system, and transporting materials to a disposal site. TV inspection uses CCTV to inspect and score the pipe. AW uses standardized inspection coding by the National Association of Sewer Service Company's (NASSCO) Pipeline Assessment Certification Program (PACP). Both City crews and contractors utilize the same software and codes to ensure the inspection results are consistent and can be imported into the CCTV database. PACP Scores are used for planning pipeline rehabilitation projects. Using standard PACP coding allows AW to compare different pipe segments and rank them based upon the number of defects identified. AW will use this

inspection data collected to ensure infrastructure stability and to prioritize capital improvement projects.

The City-wide collection system inspection, located outside of the Edwards Aquifer Recharge Zone (EARZ) and Downtown Austin Project Coordination Zone (DAPCZ), is inspected once on average every nine to ten years. A new City-wide cycle started in November 2018. Inspection of the collection system includes mains and manholes. The collection system located within the EARZ is televised once every five years to comply with the Texas Commission Environmental Quality (TCEQ) Edwards Aquifer Rules. The new EARZ cycle started October 1, 2019. Also, part of the collection system, lift stations are inspected at least weekly with several lift stations inspected daily. The City also visually inspects each manhole to ascertain the general integrity of the manhole and determine whether the manhole needs replacement and/or rehabilitation. Buried manholes shall be identified and raised where feasible and recorded to update the System map.

These O&M activities, collection system improvements, and emergency response activities have continued to reduce the number of overflows and their duration. AW also conducts Sewer System Evaluation Survey (SSES) studies for the collection system in the drainage basins of its wastewater service area.

In addition to the closed-circuit TV inspection required by TCEQ, AW also cleans the wastewater lines and inspects manholes located in creeks and watersheds. Interceptors in creeks are “walked” for visual inspection of any damage after indication of significantly high flows in the creeks. Sources of infiltration and seepage that cannot be eliminated through routine maintenance are evaluated as part of a SSES to determine the best method of rehabilitation/repair/replacement.

Any illicit discharge of sewage or wastewater from a private or public system may be reported to AW or 311 dispatch by the public for investigation by AW. WPD investigates Pollution Hotline reports of overflows that threaten to discharge to a storm sewer or waterway.

AW has a division called Utility Development Services (UDS) that investigates wastewater issues with private laterals. This team works on resolving blockages, back-ups, stop-ups, and SSO's on the lateral side. The Austin City code requires customers to repair sections of their

private plumbing that are not per code or functioning properly. UDS has legal authority to require homeowners to repair their private plumbing using the Private Lateral (PLAT) program. AW and WPD staff coordinate as necessary with the TCEQ and/or the Environmental Protection Agency (EPA) during emergency spill incidents.

 MCM 3 Illicit Discharge Detection and Elimination Overflows and Infiltration (Wastewater Pipelines)			
Activity/BMP	Quantifiable Target	Deadline	Department
Respond to wastewater emergencies	Respond to overflow emergencies within 1 hour 95% of the time.	September 30 th , annually	AW
Clean wastewater lines	Clean 5% of wastewater lines	September 30 th , annually	AW
TV inspect and score gravity collection lines	Inspect 5% of wastewater lines	September 30 th , annually	AW
Inspect manholes to ascertain integrity	Inspect 5% of manholes	September 30 th , annually	AW
Smoke Testing	Smoke test 1% of wastewater lines	September 30 th , annually	AW
Inspect City Owned Lift Stations	Inspect 100% of City lift stations	Weekly	AW
Televis the collection system located within the EARZ	Televis 100% of the collection system in the EARZ	Once every 5 years	AW

*AW will always strive to maintain a 1-hour response time, 95% of the time; however, in the event of a shortage of multiple staff members, weather emergencies, or other unforeseen extenuating circumstances, it will be attained 90% of the time.

On-site Sewage Facilities (Septic Systems)

Austin Water regulates On-Site Sewage Facilities (OSSFs) located within the City's jurisdictional boundaries for OSSFs. The City's jurisdictional boundaries include the City's corporate limits and areas annexed for the implementation of the Health and Safety code. The Texas Commission on Environmental Quality (TCEQ) has granted authority to Austin Water to enforce the requirements established in Title 30 of the Texas Administrative Code (TAC) Chapter 285 and has approved additional requirements under City Code 15-5 article I for the regulation of OSSFs. The focus of the OSSF program is to abate and/or prevent pollution and injury to public health from the inadequate treatment and disposal of on-site treated sewage.

The OSSF Program uses a multi-step process to reduce or prevent illegal discharges of improperly treated on-site sewage into the City's municipal separate storm sewer system.

Potential unpermitted discharges include but are not limited to seepage/infiltration and runoff of partially treated effluent and/or raw wastewater.

City Code Ordinance

Title 15, Chapter 15-5. Private Sewage Facilities

Chapter 15-5 of the Austin City Code provides regulations for sewage facilities. Section 15-5-26 (discharge or spill) of the chapter provides specific guidelines for reporting and cleanup activities so that appropriate action is taken to “protect public health and the environment.”

In January 2019, the City of Austin Council passed Ordinance No. 20190131-002 amending Article 1 of City Code Chapter 15-5 related to the regulation of OSSFs. The TCEQ issued an order approving the ordinance, the effective date is April 4, 2019. COA Chapter 15-5 was amended to increase public protection by introducing registration requirements for TCEQ licensed OSSF maintenance providers and clarifying requirements introduced in previous code amendments. Major amendments include but are not limited to:

Monitoring of Existing Systems

Properties with an OSSF in which the property owner is seeking to obtain a building permit from the City of Austin must be evaluated for potential impacts to the OSSF before a building permit can be issued. Design plans for the installation of new or modified systems are reviewed by Austin Water to ensure compliance with City and State design and installation requirements.

Enforcement

City code does not require existing OSSF to be abandoned unless the systems are failing (e.g., the OSSF is a known source of pollution, nuisance conditions are present, it is a threat to public health, or when the system is altered). The City may inspect OSSFs that are believed to be causing pollution. Enforcement action may be initiated for any non-compliant OSSF and may include citations for failure or refusal to remedy conditions prohibited by City Code.

When necessary, action may be taken through Municipal Court to enforce these provisions of the City Code. Additionally, the City may temporarily disconnect water and/or electric services to non-compliant sites. Austin Water also coordinates enforcement activities with several other local agencies such as the TCEQ, the Lower Colorado River Authority (LCRA), Travis County Transportation and Natural Resources Department, and the Williamson County Health District on an as needed basis. For example, the TCEQ may assist with the enforcement of special regulations for the construction of wastewater systems over the Edwards Aquifer Recharge

Zone. LCRA may assist with regulations regarding private sewage facilities near Lake Travis and the other Highland Lakes.

Un-permitted or illicit discharges of wastewater from a private or public system into a storm sewer system or waterway is a violation of the City Water Quality Code. WPD is responsible for determining the source of illegal discharges to storm water sewers and waterways, evaluating the impacts of such discharges, and enforcing regulations to preventing such discharges. AW contacts WPD immediately when a source of wastewater is observed discharging into the storm sewer or waterway.

 MCM 3 Illicit Discharge Detection and Elimination Overflows and Infiltration (Septic Systems)			
Activity/BMP	Quantifiable Target	Deadline	Department
OSSFs Inspected (development driven)	Complete construction inspections within 24 hours (or next business day) of request	September 30 th , annually	AW
OSSFs Permitted (development driven)	Issue permits within 30 calendar days of receiving a complete application	September 30 th , annually	AW
Investigation and Enforcement Actions (customer driven)	Respond to 100% of complaints or notices of potential violation	September 30 th , annually	AW
Investigation of illegal discharges (customer driven)	Respond to 100% of complaints or notices of potential violation	September 30 th , annually	AW

Household Hazardous Waste and Used Motor Vehicle Fluids (ix)

Household Hazardous Waste and Used Motor Vehicle Fluids. The permittee shall prohibit the discharge or disposal of used motor vehicle fluids and household hazardous wastes, and the intentional disposal of collected quantities of grass clippings, leaf litter, and animal wastes into the MS4.

A) The permittee shall continue to ensure the implementation of programs to collect used motor vehicle fluids (including, at a minimum, oil and antifreeze) and household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycling, reuse, or proper disposal. Such programs shall be readily available to the residential sector within the MS4 and shall be publicized and promoted on a regular basis.

B) Household hazardous waste collection centers which are operated by the permittee as a SWMP element are not an industrial activity requiring a separate TPDES authorization for the discharge of stormwater. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (including, at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis. Household hazardous waste collection centers which are operated by the permittee as a SWMP element are not considered an industrial activity requiring a separate TPDES authorization for the discharge of stormwater.

Austin Resource Recovery (ARR)

ARR is responsible for the development and management of the City's Household Hazardous Waste (HHW) Program. The program focuses on decreasing pollution to watersheds from improper disposal of home chemicals and used oil.

In October 2015, the HHW Program was combined with the Resource Recovery Center (RRC) to become the Recycle and Reuse Drop Off Center (RRDOC). Within the umbrella of the RRDOC the HHW still operates in the same manner as before with a staff of environmental professionals. Staff members provide the day-to-day operations and management of the facility and program.

The City of Austin's HHW Program serves the residents of Austin and Travis County, Texas. Funding is primarily from City ARR customers; however, Travis County contributes close to 10% of the annual program budget with 10-15% of program participants coming outside the City's service area. Travis County funds pay for the county's share of hazardous waste transportation, disposal costs, and an additional employee. County funding contributions to the program are based on the percentage of participation coming from areas in the county outside the city limits.

Citizens from surrounding counties may use the program's services for a fee. Publicity is provided through local newspapers and other media outlets. Information is provided during presentations to area schools, professional organizations, and environmental conferences. With the assistance of the TCEQ's Pollution Prevention and Education Section and the North American Hazardous Materials Management Association (NAHMMMA), information on the operation and success of Austin's program is made available to communities throughout Texas and the United States.

This program provides convenient, responsible disposal options so that household hazardous wastes are removed from the City and County's regular liquid (sanitary sewer) and solid waste streams (landfill). Proper disposal of hazardous wastes also decreases this category of material from being disposed of in vacant land, easements, or storm sewers.

Removing flammable, corrosive or explosive hazards from solid waste collections contributes to a safer workplace for sanitation workers and lessens risks for firefighters. Program awareness and participation also helps make homes safer. Public education efforts are detailed in Section 7, Public Education and Involvement.

HHW Collection

The HHW Program consists of a daily collection program at a permanent solid waste transfer facility. Customers who require home pickups or other accommodations will be helped throughout the week. Through numerous area stores, household battery collection is available. The Household Hazardous Waste Program is fenced separately per TCEQ requirements. The RRDOC takes expanded polystyrene, rigid plastics, appliances, electronics, and single stream recycling from the public. Although the City can no longer accept Very Small Quantity Generator (VSQG) wastes (30 TAC 335 Subchapter N disallows this practice), VSQG customers will be provided a list of vendors.

City HHW staff accepts and segregates waste into approved containers for storage until the disposal contractor can transport the waste for disposal or recycling. Mixed solvents, antifreeze, oil, and latex paint will be bulked into drums (or storage tanks for oil and antifreeze) during collection hours. Oil-based paint is packaged into cubic yard boxes. A qualified, permitted hazardous waste transporter and disposal contractor is present, on a weekly basis, to further segregate the collected material, manifest, package and transport collected wastes for disposal at U.S. EPA licensed disposal facilities. Collected waste is stored at the HHW Facility in accordance with Title 30 Texas Administrative Code (30 TAC) Chapter 335 Subchapter N.

Paint Recycling Program

Another successful program under the HHW umbrella is the latex paint recycling program. Part of the segregation operation at the facility includes determining if latex paint, which is dropped off, is in usable condition. Good latex paint is poured into three separate containers to make up white, green, and dark latex paint. HHW staff blends and packages the latex paint into 3.5-gallon containers. It is given to the public, 501(c) groups for building projects, to the Physical Graffiti Abatement Program of the Austin Police Department, and to other groups deemed candidates for the paint.

Public Education Involvement and Intergovernmental Coordination

Another key component of the HHW Program is continued public involvement and coordination with other government entities. The City's HHW Program works closely and coordinates program planning and implementation with the TCEQ's Pollution Prevention and Education Section. Notification of any HHW collection event is required 45 days prior, and a full operational

plan with specific regulatory requirements is required to be available on site for any HHW collection. For permanent sites such as Austin's, the notification is required to be updated periodically (typically annually) while the operational plan is updated as changes occur within the program.

 MCM 3 Illicit Discharge Elimination and Detection <i>Household Hazardous Waste & Used Motor Vehicle Fluids</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Remove oil from waste stream	Accept 100% of used residential motor oil dropped off at facility by Austin residents	September 30 th , annually	ARR
Remove hazardous materials from waste stream	Accept 100% of residential hazardous waste dropped off at the facility by Austin residents	September 30 th , annually	ARR
Offer HHW collection services to City of Austin residents	Serve 100% of Austin residents that schedule an appointment for drop off HHW	September 30 th , annually	ARR

MS4 Screening and Illicit Discharge Inspections (x)

To locate portions of the MS4 with suspected illicit discharges and improper disposals, the permittee shall continue implementation of the Dry Weather Screening Program described in Part III, Section B.2.h.i. of this permit. Follow-up activities to eliminate illicit discharges and improper disposals may be prioritized on the basis of magnitude and the nature of the suspected discharge, sensitivity of the receiving water, or other relevant factors. The entire MS4, but not necessarily each individual outfall, shall continue to be screened at least once per five years.

Please refer to Dry Weather Screening program information in Monitoring Section MCM 8.

Priority Areas (xi.)

Within one year from the date of permit issuance, the permittee shall develop a list of priority areas likely to have illicit discharges. The permittee shall continue to evaluate and update this list each year and report the results in the annual report.

WPD uses collected data on pollution type, volume, and location to produce a heat map/hotspot map (*Pollutant Data Spatial Viewer*) that helps indicate areas where illicit discharges are likely to occur. Spatial and traditional analysis and historical data trends for the previous one and five-year calendar periods identified the following general areas to have a higher probability of polluting illicit discharges:

- High population density areas, particularly the urban core;
- Transportation corridors;
- Active construction sites; and
- Areas with aging water and wastewater infrastructure.

The Pollutant Data Spatial Viewer is utilized for prioritizing dry weather screening and community outreach areas. This map is maintained by WPD and is readily available upon request.

NPDES and TPDES Permittee List (xii.)

The permittee shall maintain an updated list of dischargers that discharge directly to the MS4 and that have been issued an NPDES or a TPDES permit. The list shall include the name, location, and permit number (if known) of the discharger.

WPD maintains a database of permitted NPDES and TPDES facilities discharging to the City's MS4. This database stores information from the TCEQ Central Registry and WPD field inspections. This information is continually updated and available upon request.

MS4 Maps (xiii.)

- A) The permittee shall maintain a current, accurate MS4 map of the location of all MS4 outfalls; the names and locations of all waters of the U.S. that receive discharges from the outfalls; and any additional information needed by the permittee to implement its SWMP. Where possible, the permittee shall use the Global Positioning System (GPS) to locate outfalls and photographs for documenting baseline conditions.*
- B) The permittee shall document the source information used to develop the MS4 map, including how the outfalls are verified and how the map will be regularly updated.*
- C) New MS4 Areas: The permittee shall continue to develop and implement procedures to ensure that the above mapping requirements in Part III.B.2.c.xiii are met for all new portions of the MS4.*
- D) Existing MS4 Areas: The permittee shall continue to demonstrate that it has evaluated all existing portions of the MS4 and that the mapping requirements have been implemented to the maximum extent practicable.*

The WPD maintains a Geographic Information System (GIS) feature class of the mapped MS4 system. This information is continually updated and an MS4 system map is produced upon request. The map includes locations of MS4 outfalls, private outfalls, and the name and location of all surface waters receiving a discharge. The map was developed through field reconnaissance or visual identification and is updated through information provided through design development construction plan reviews or dry weather screening.

Spill Prevention (xiv.)

The permittee shall continue to implement existing programs which prevent, contain, and respond to spills that may discharge into the MS4. The spill response programs may include:

- A) a combination of spill response actions by the permittee or another public or private entity;*
and
- B) legal requirements for private entities within the jurisdiction of the permittee.*

Watershed Protection Department (WPD)

WPD serves businesses, other City departments, and citizens by offering targeted educational information over a variety of topics, aimed at preventing and minimizing water quality impacts from accidental spills, incidental pollutant runoff, and other illicit discharges. Information is provided in the form of written handouts and staff presentations. Handouts include program descriptions, regulatory contact information, best management practices, spill clean-up procedures, and waste disposal/recycling information.

Figure 8. Spill Response Investigation Flow Chart

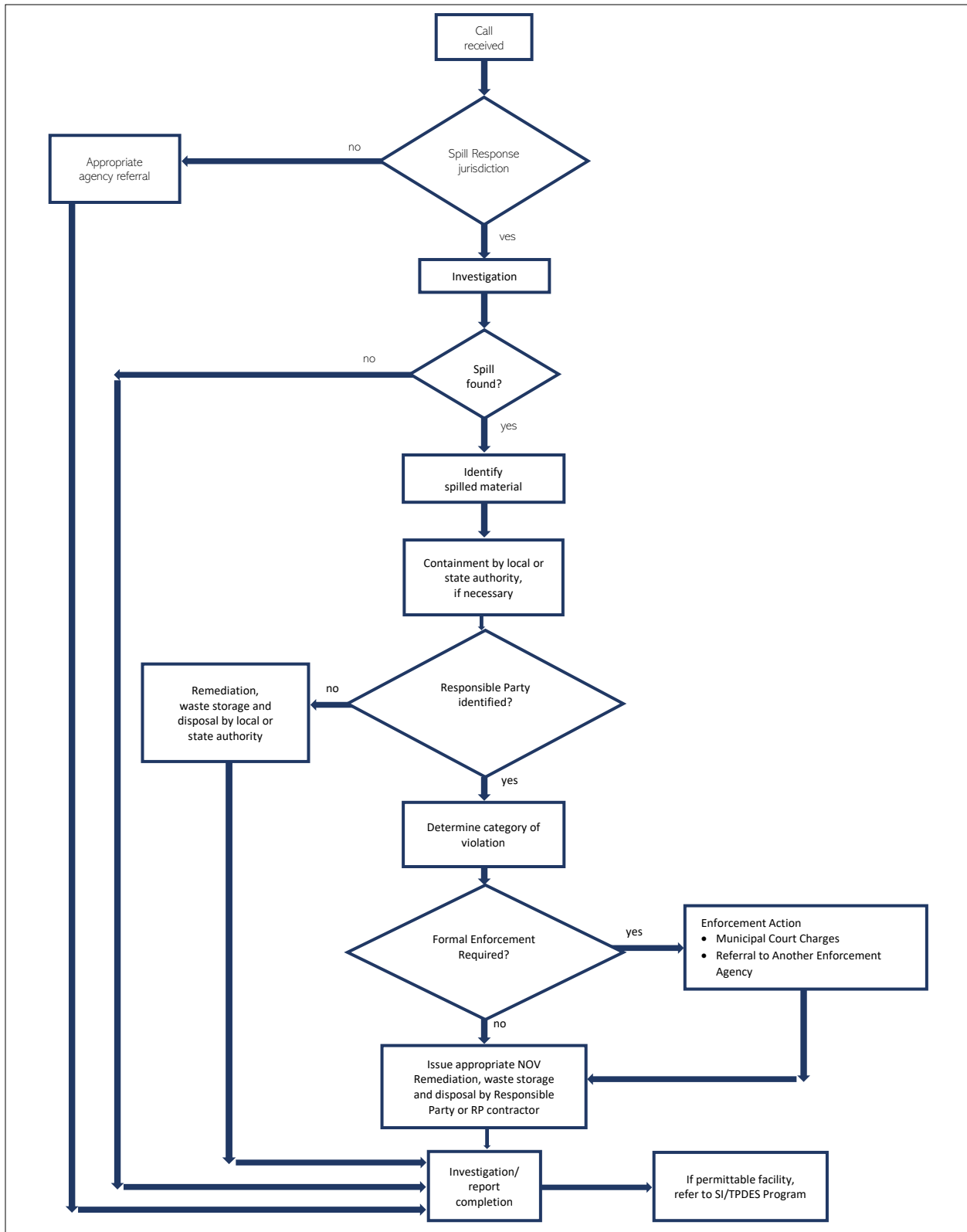


Figure 9. Spill Response Program Investigation Procedure

CALL RECEIVED

- Call is received by WPD Spill Response Program Investigators through the City of Austin 24-Hour Pollution Hotline or direct notification from partner agency.

SR JURISDICTION / PURVIEW?

Yes:

- Investigator prioritizes call according to potential environmental impact and responds to calls in order of priority.

No:

- Refer to appropriate agency (see *Appropriate Agency Referral*).

APPROPRIATE AGENCY REFERRAL

- Refer to appropriate agency.
For example: Austin Health and Human Services Department, Travis County, TCEQ.

INVESTIGATION

- Review information reported.
- Check and prepare equipment anticipated for the investigation.
- Mobilize to Site.
- Observe from safe distance and approach with caution from upwind direction, if necessary.
- Establish contact with potential responsible party(ies) and/or other agency representatives. Present credentials, explain authority and purpose of investigation.
- Record observations in field notebook, documenting violations or potential violations.

SPILL FOUND?

Yes:

- See *Identify Spilled Material*.
- Assess general properties of material spilled to determine method of initial containment, if necessary.
- Evaluate environmental impact(s).
- Coordinate with other agencies and contractors, if necessary.
- Collect samples, if necessary.
- Communicate applicable regulations and associated legal responsibilities to suspected or potential responsible party(ies).

No:

- Verify spill / complaint information with caller.
- Gather all pertinent information and evidence if a spill is suspected, but not found.
- Communicate applicable regulations and associated legal responsibilities to suspected or potential responsible party(ies).
- Complete investigation report (see *Investigation / report completion*)

IDENTIFY SPILLED MATERIAL

- If material is not positively identified by observation, consult resources such as: AFD, Safety Data Sheet(s), Chemtrec, Emergency Response Guidebook, other reference books.
- Take appropriate safety precautions for exposure to material.

CONTAINMENT BY LOCAL OR STATE AUTHORITY

- AFD conducts initial spill containment when material is a public hazard.
- SR Investigator conducts initial spill containment when material is an immediate threat to a storm sewer or watercourse but is not a significant public hazard.

Figure 9. Spill Response Program Investigation Procedure *continued*RESPONSIBLE PARTY IDENTIFIED?

Responsible party is person(s) or business causing the illegal discharge. If no responsible party is identified, the owner of the property on which the material is spilled is responsible. Unknown property ownership is determined by accessing City of Austin utility records or county tax records.

Yes:

- See *Determine Category of Violation*.

No:

- See *Remediation, waste storage, and disposal by local or state authority*.

REMEDIATION, WASTE STORAGE AND DISPOSAL BY LOCAL OR STATE AUTHORITY

- When no responsible party is identified, and if necessary, local or state authority (e.g. WPD, AFD or TCEQ), or contractor hired by local/state authority, performs remediation, waste storage and disposal.
- WPD Investigator makes recommendations on remediation methods, sample parameters, waste storage and disposal methods, etc.

DETERMINE CATEGORY OF VIOLATION

- Determine if violation is Category C, B, or A.
- Issue verbal Notice of Violation and deadline for remediation if Category C
- Issue written Notice of Violation and deadline for remediation if Category B
- Issue written Notice of Violation and deadline for remediation if Category A, as well as initiating formal enforcement

FORMAL ENFORCEMENT REQUIRED?

Check database for repeat violations. If violation is a third instance of a Category B violation within a 5-year period, or if violation is a Category A violation, formal enforcement is required.

Yes:

- See *Enforcement Action*

No:

- See *Remediation, Waste Storage, and Disposal by Responsible Party or RP Contractor*.

ENFORCEMENT ACTION

- Notify supervisors or manager to begin enforcement process, potentially including WPD management and COA legal staff and superior authorities.
- WPD Investigator gathers case documentation (SDS, photos, field notebook entries, NOVs) and prepares affidavit for civil charges in municipal court.
- Notify appropriate County Attorney, if investigation reveals potential criminal intent.
- Notify TCEQ for enforcement for violations of TCEQ permitted activities or violations at TCEQ permitted sites.

REMEDIATION, WASTE STORAGE AND DISPOSAL BY RESPONSIBLE PARTY OR RP CONTRACTOR

- If necessary, Responsible Party (or contractor hired by Responsible Party) conducts remediation.
- WPD Investigator makes recommendations on remediation methods, sample parameters, waste storage and disposal methods, etc.

INVESTIGATION / REPORT COMPLETION

- Inspect Site to verify remediation of observable contamination.
- Review lab analyses, waste manifests and other remediation documentation.
- Complete and document follow-up investigations, as necessary, enter report into database.

Austin Fire Department (AFD) Special Operations Division

The Special Operations Division supplies hazardous material response personnel, apparatus, and equipment from four fire stations located in the central, north, east, and south sectors of Austin. This Division also supplies Special Operations personnel who act as incident advisors, provide training, evaluate new equipment, and maintain specialized response equipment.

Generally, this program targets the control of potentially hazardous material spills or other incidents that may endanger human health and safety within the City limits. AFD emergency response activities are not targeted to any specific industry or business, rather the Special Operations Division is trained to handle a wide variety of hazardous materials incidents including liquid spills, gas releases, and rescues under hazardous conditions.

In addition to providing personnel, training, and equipment for emergency response, AFD maintains a large inventory of equipment for use during hazardous materials incidents including spill containment, chemical monitoring, personnel protective clothing, confined space entry, decontamination and water rescue equipment.

Incidents are responded to in an expeditious manner with a priority given to life safety and protection of property. Fire suppression may not be initiated due to possible run-off of toxic substances. The "no attack" strategy has become an important consideration during the incident pre-planning effort. If an incident commander declares the no attack strategy, personnel will construct temporary diking and containment to control runoff from containers that will fail and water (or foam-water) that will be applied once most hazardous materials are incinerated by the fire. Except for Austin Bergstrom International Airport (AUS), firefighting foam used by AFD are fluorine free. The selected foam is does not produce PFOS (perfluorooctane sulfonate) and does not disassociate into PFOA (perfluorooctanoic acid). The foam has been evaluated and certified by Underwriters Laboratories. Firefighting foam at AUS do contain perfluorinated surfactants because the Federal Aviation Administration (FAA) has a different standard for foams and requires their use for aircraft firefighting as a condition of the Airport's Operating Certificate issued by the FAA. AUS has multiple on-site containment structures throughout the aircraft operating areas to capture spill from aviation fuels and firefighting water.

Once an immediate hazard has been alleviated, the Special Operations Division may require follow-up remediation when a responsible party is identified or performs cleanup operations.

AFD Special Operations Division coordinates with WPD, TCEQ, and the Health and Human Services Department (HHSD) to ensure that current environmental and life safety regulations are met. The Special Operations Division will continue to provide emergency response capabilities to hazardous material spills or other incidents.

AFD enforces the 2003 International Fire Code (IFC) to regulate hazardous materials storage and registration in the City of Austin. Included in IFC is regulatory language that prohibits the discharge of materials into the storm sewer or watercourses. Section 2703.3 of the IFC states: "Hazardous materials in any quantity shall not be released into a sewer, storm drain, ditch, drainage canal, creek, stream, river, lake or tidal waterway or on the ground, sidewalk, street, and highway or into the atmosphere."

The City also has amended sections of the IFC to include provisions for reporting emergencies and cost recovery. In addition, AFD requires adherence with Section 6-5-51 of City Code.

 MCM 3 Illicit Discharge Detection & Elimination <i>Spill Prevention and Response</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Hazardous Material Incident Response	Respond to 100% of reported incidents	September 30 th , annually	AFD
Spill Response program	Investigate 100% of observed or reported applicable accidental spills and illicit discharges that may enter the MS4.	September 30 th , annually	WPD
Non-Stormwater Discharge Review program	Respond to 100% of requests to discharge non-stormwaters to MS4.	Each occurrence	WPD

MCM 4. Pollution Prevention & Good Housekeeping for Municipal Operations

WQ0004705000, Part III, Section B.2.d.

Pollution Prevention and Reduction/Good Housekeeping Programs (i)

1. *Pollution Prevention and Good Housekeeping program. The permittee shall continue to implement a pollution prevention and good housekeeping program for municipal operations. The program must include MCMs that address:*
 - A) *identification and implementation of good housekeeping and best management practices (BMPs) to reduce pollutant runoff from municipal operations, such as street and highway maintenance, parks, municipal office buildings, and water treatment plants;*
 - B) *reduction of discharge of pollutants to the MEP from road repair, equipment yards, material storage facilities, or maintenance facilities;*
 - C) *training for all employees responsible for municipal operations, which includes information on preventing and reducing stormwater pollution from all municipal operations subject to this MCM; and*
 - D) *Within one year from the date of permit issuance, implement a program for all structural control maintenance.*

To reduce the discharge of pollutants into local waterways from municipal operations, the City has developed and implemented programs within several departments.

The Watershed Protection Department (WPD) manages this program by identifying municipal operations and recommending best management practices (BMPs). The municipal training program is a partnership between WPD and multiple departments.

Identification and Implementation of Good Housekeeping and BMPs

The City implements BMPs in municipal areas such as routine street cleaning, litter retrieval, storm drain and basin cleaning, and sand recovery from deicing operations. Controls are also implemented during roadway maintenance projects. Please refer to MCM 1 for further BMP descriptions.

WPD maintains a Scoop the Poop Program that partners with the Parks and Recreation Department. Pet Waste dispensers are installed in over half the City's parks and recreational areas to encourage dog owners to clean up after their pets. Please see MCM 7 for further information on BMPs for this program.

Good Housekeeping and BMPs at Municipal Operations

- Use proper BMPs around work areas and stored material to prevent pollutant runoff from entering the storm sewer system.
- Where possible, store materials under cover (tarps or permanent structures) and away from storm drains to prevent or minimize pollutant runoff into the storm sewer system.
- Ensure equipment and vehicles are properly maintained to prevent spills to soil and impervious cover.
- Fleet vehicles are serviced, fueled, and washed at designated facilities with proper BMPs.
- Maintain an appropriate supply of accessible spill containment and clean-up materials.
- Store chemicals and wastes in secure containers and locations to minimize exposure and contact with stormwater and prevent pollutant runoff.

WPD responds to emergency spill incidents and investigates pollution complaints on City owned properties. Calls are typically reported to the City's 24-Hour Pollution Hotline and response is rapid to prevent and/or minimize potentially polluting discharges to the storm sewer system. Staff identifies illicit discharges and requests that corrective actions and preventive measures be taken. Follow up visits are conducted to ensure compliance.

Inspection Program

Through a routine inspection program, WPD identifies City properties and facilities that may be potential municipal sources of stormwater pollution and verifies implementation of BMPs and good housekeeping practices. Site visits to City facilities that have a City stormwater permit are conducted on a routine or as needed basis. Some examples of City facilities and properties included in this program are fleet service stations, power plants, fire stations and training facilities, municipal pools, golf courses, airport operations, the Recycle & Reuse Drop-off Center, water treatment plants, and material storage areas. Additionally, WPD provides technical assistance on BMPs for City operations (practices) such as roadway de-icing, roadway striping, hydrant flushing, aviation de-icing, street sweeping, EMS vehicle washing, downtown sidewalk cleaning, storm sewer inlet cleaning/vactor truck dewatering, and graffiti removal.

Inspections evaluate waste storage, handling, and disposal practices; plumbing connections to the storm sewer system; vehicle maintenance/fueling/washing; and a review of housekeeping/facility maintenance practices. City staff also determines which City operations require coverage under the Texas Pollution Discharge Elimination System (TPDES). Facilities that are subject to TPDES permit requirements receive a more detailed inspection that includes

a review of the facility's Stormwater Pollution Prevention Plan (SWP3) to verify the plan is current and being implemented as required.

Training

The City developed a Compliance Plan to modify the MCM 4 training program to reach all employees more effectively and consistently that work at applicable municipal operations.

Training for City employees maximizes participation in water quality, waste reduction, and water and energy conservation programs within each department and the department's individual facilities. Safety training is mandatory for City employees and provided annually within the employee workgroups on a variety of subjects pertinent to the daily activities and duties, including the BMPs for their municipal operations.

The Citywide stormwater training program key activities and reporting are coordinated by WPD. WPD works with established program representatives within departments whose employee's daily duties and activities have the potential to affect water quality. The training program focuses on providing basic stormwater quality education, potential sources of non-point source pollution at municipal operations, and the recognition and utilization of BMPs for pollution prevention in their workspace. The key elements of the Citywide stormwater training program may include:

- BMP education and training during a compliance inspection conducted at a municipal facility;
- Standard (computer-based) stormwater training;
- Customized (computer-based) pollution prevention training, based on activities; and
- Requested training sessions.

 MCM 4 Pollution Prevention and Good Housekeeping for Municipal Operations <i>City-Wide Training Program</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Training program for employees responsible for daily operations at applicable municipal locations.	Conduct 1 training	September 30 th , annually	WPD, ARR, PWD, AFD, AUS, Fleet, PARD, AW

Waste Handling (ii)

The permittee shall ensure that waste removed from the MS4 or other municipal operations is properly disposed.

The City of Austin properly disposes of waste that is removed from the MS4 and other municipal operations, including maintenance of storm water structural controls. When removing trapped floating material from its two locations on Lady Bird Lake, WPD loads the material into City dump trucks and hauls it to an authorized landfill. Material removed from the maintenance of City storm water structural controls are also taken to an authorized landfill.

WPD vacuum trucks remove materials from the City storm sewer pipes and drains. The materials are taken to a WPD maintenance facility where dewatering areas are maintained and solids are taken to an approved local landfill. ARR and PWD takes all litter and debris picked up from streets to an authorized landfill.

Please refer to MCM 1 for Measurable Goals related to these activities.

Pesticide, Herbicide, and Fertilizer Application (iii)

The permittee shall continue to implement controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers, by its employees or contractors, to public rights-of-way, parks, or other municipal property. If the permittee has jurisdiction over lands it does not directly own (e.g. incorporated City), it shall implement programs to reduce the discharge of pollutants related to the commercial application and distribution of pesticides, herbicides, and fertilizers on those lands.

The City of Austin uses the activities of the City's Integrated Pest Management (IPM) Program to implement controls to reduce the discharge of pollutants related to the storage and application of pesticide, herbicide, and fertilizers. The IPM Program is a City-wide program that actively coordinates educational outreach activities and information to Texas Department of Agriculture licensed pesticide applicators, retail nurseries, the landscaping community, City land managers and their staff, and the public to promote environmentally sound herbicide, pesticide and fertilizer management practices.

The City's IPM public education program provides information related to IPM principles and practices. Program staff provide information related to garden products, water quality, xeriscaping, erosion control practices, and rain gardens. Information is disseminated through

the Grow Green/IPM websites (www.GrowGreen.org) and (www.austintexas.gov/ipm), social media, public service announcements, and printed materials. Printed material may include posters, bookmarks and brochures distributed in displays at local gardening centers, City libraries, City facilities, and at community events. Other ways information is shared include one-on-one conversations and presentations.

The target audiences for these activities are:

- City of Austin employees responsible for pest management and grounds maintenance
- City contractors conducting vegetation or land management activities
- Homeowners and community members in the Austin area
- Professional communities including those who design, install, and manage landscaping
- Retail distributors of pest control products, fertilizer and gardening supplies

The City's regulatory IPM program reviews IPM plans associated with development as required by City codes and criteria or Council-approved development agreements and provides updates to relevant codes and criteria as needed. The following types of development require an approved IPM plan. Reference to City Code or criteria is provided in parentheses.

- Community Gardens (City Code 14-7-1)
- Urban Farms (City Code 25-2-863)
- Market Gardens (City Code 25-2-864)
- Vertical Mixed-Use development in the Drinking Water Protection Zone (City Code 25-2 Subchapter E, 4.3.4A4c)
- Traditional Neighborhood District (TND) Green Builder Standards (TND Criteria Manual 8.7.4)
- Open space, sustainable agriculture and athletic field development in the Critical Water Quality Zone (Environmental Criteria Manual 1.5.3B)
- Wet ponds, green stormwater controls, and retention/irrigation (ECM 1.6.3 and 1.6.7)
- Green Roof (ECM Appendix W)
- Single-family and multi-family development in the Barton Springs Zone requires a Public Education Plan, which includes IPM principles (ECM 1.6.9.2)
- The use of pesticides is prohibited in Critical Environmental Feature buffers in Barton Springs Zone (ECM 1.10.5.2.G)
- Youth Sports Organizations that maintain publicly owned fields (Building Criteria Manual Section 14.2 Appendix D).

	MCM 4 Pollution Prevention and Good Housekeeping for Municipal Operations <i>Pesticide, Herbicide, and Fertilizer Application</i>		
Activity/BMP	Quantifiable Target	Deadline	Department
IPM Plan Review	Review 100% of IPM plans submitted through the development review process.	September 30 th , annually	WPD
Distribute Grow Green educational information	10 locations	September 30 th , annually	WPD
Educate Landscape Professionals	1 class	September 30 th , annually	WPD

List of Municipal Facilities (iv)

The SWMP must include a list of all municipal operations subject to the municipal operation, maintenance, and training programs listed under this MCM and all municipally owned and operated industrial activities subject to TPDES or NPDES industrial stormwater regulations.

The City maintains a list of all municipal operations subject to the program listed in the SWMP MCM; see Appendix A for the list.

MCM 5. Industrial and High-Risk Program

WQ0004705000, Part III, Section B.2.e.

Industrial and High-Risk Inspection Program (i-iii)

i. The permittee shall continue to improve (its/their) existing programs to identify and control pollutants in stormwater discharges to the MS4 from: municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g., transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; 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 MS4.

ii. the permittee shall use ordinances, permits, contracts, orders or similar means to control the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity

iii. This MCM must include:

- A) priorities and procedures for inspections and for establishing and implementing control measures for such discharges; and*
- B) an Industrial and High-Risk Monitoring Program as described in Part III, Section B.2.h.iii. of this permit.*

The goal of the City's Industrial and High-Risk Runoff Program is to identify and reduce pollutants in storm water discharges to the municipal separate storm sewer system (MS4). This goal will be achieved through the establishment of priorities and procedures for inspections and monitoring of the industrial facilities identified in § 122.26 (d) (2) (IV) (C) of the NPDES regulations.

Austin Fire Department (AFD)

Hazardous waste treatment, disposal and recovery facilities, facilities subject to SARA Title III:

The permitting of hazardous material locations in Austin began in 1985 with City Council approval of the Hazardous Materials Ordinance. Since that time, the AFD Aboveground Hazardous Materials Permit Program has been permitting and conducting inspections of facilities that store or handle hazardous materials. As defined in the International Fire Code (IFC) and Local Amendments, industries and commercial facilities storing hazardous materials that meet the following requirements are required to obtain an Aboveground Hazardous Materials Storage Permit:

- The Hazardous Material has a health, flammability, or instability rating of 2 or more as defined in the National Fire Protection Association (NFPA) Standard 704.
- The Hazardous Material is stored or used aboveground in quantities exceeding the amounts specified in the Local Amendments to the IFC.

- The Hazardous Material is a compressed or liquefied compressed gas in a quantity exceeding 100 cu. Ft at NTP.
- A site where motorized equipment or vehicles are filled with hydrocarbon fuels that are dispensed from a US Department of Transportation approved tank vehicle.

The Aboveground Hazardous Materials Permit Program has identified approximately 3,062 facilities in the City limits that meet the above noted criteria. These facilities are issued Aboveground Hazardous Materials Storage Permits that are renewed every three years. These locations are subject to periodic, routine inspections to ensure proper storage, handling, and disposal practices. Of the total number of facilities included in the Aboveground Hazardous Materials Storage Permit Program, there are approximately 281 above ground storage/use facilities that are considered Texas Tier Two facilities. None of these facilities are known to be federally permitted hazardous waste treatment, storage, or disposal facilities. The Tier Two facilities are subject to the federal (EPCRA Title III) and state "Community Right to Know" reporting requirements and provide the AFD with all the reports required by the regulations.

The AFD currently inspects the Tier Two facilities on an as needed basis, usually in response to new construction permit approvals or because of a citizen complaint. During inspections, AFD reviews the facility's hazardous material storage, handling, and disposal practices and enforces City and IFC requirements. Many of the Fire Code requirements that are enforced have the potential to impact storm water discharges at the facility. These requirements include, but are not limited to

- proper storage of raw and finished materials
- proper spill control, drainage control and secondary containment
- prohibitions on unauthorized discharges
- proper procedures for outdoor storage, dispensing and use of materials
- leak detection, leak reporting and emergency shut-off equipment maintenance

If during facility inspections AFD observes practices or procedures that may affect storm water discharge quality but are not violations of the IFC, the City's Pollution Hotline will be notified and an inspection by the Watershed Protection Department (WPD) will be initiated. In addition to coordinating efforts with WPD, AFD also coordinates its permitting activities with the TCEQ, and Health and Human Services (HHS). Coordination with these agencies should result in the identification of additional facilities that have not obtained an AFD Aboveground Hazardous Materials Permit.

Watershed Protection Department (WPD)

The goal of the City's Industrial and High-Risk Runoff Program is to identify and control pollutants in storm water discharges to the municipal separate storm sewer system (MS4). This goal will be achieved through the establishment of priorities and procedures for inspections and monitoring of the industrial facilities identified in § 122.26 (d) (2) (IV) (C) of the NPDES regulations.

The Industrial and High-Risk Program will include the permitting and inspection of hazardous waste treatment, disposal or recovery facilities, municipal landfills, industrial facilities as identified in Title 6 of Code, permitted TPDES facilities, and UST sites.

Municipal Landfills

The City of Austin currently has no active landfill locations. Eighty closed or abandoned landfills have been identified in the Austin area, many of which operated before landfills were regulated. Their boundaries are often unknown or poorly defined. The City has implemented a program to investigate inactive landfills on a complaint basis, primarily by WPD with assistance from AW and ARR. The Inactive Municipal Landfill Investigation Program enforces code provisions, eliminates nuisance conditions, and prevents hazardous public health conditions by:

- Providing information to the public on the location and history of closed and abandoned landfills in the City of Austin via the internet and in response to public information requests.
- Requiring applicants for certain site development permits to certify the proposed development is in fact not over a closed landfill or otherwise provide a copy of a development permit from the Texas Commission on Environmental Quality; and Investigating complaints and evidence of pollution problems. During investigations, sites are examined for access, proximity to and condition of waterways, presence of exposed waste, odors, landfill gas generation, land subsidence, erosion, or cracking of waste cover.

Industrial Facility Inspections

To regulate facilities that may be contributing a substantial pollutant load to the MS4, WPD administers a Stormwater Inspection program which includes identification, inspection and

database tracking of industrial and high-risk facilities discharging to the City of Austin Full Purpose Area.

WPD issues a City Stormwater Discharge Permit to facilities that conduct activities with a high risk for illicit discharges of pollutants. Examples of facilities that require this permit include automotive repair, machine shop services, transmission rebuilding and repair, fuel storage and dispensing. During inspections, WPD confirms proper waste storage, handling, and disposal practices; plumbing connections to the storm sewer system; and good housekeeping and maintenance practices. WPD staff may also recommend BMPs that are appropriate for the facility during inspections.

WPD also inspects and maintains databases for NOI and NEC facilities with TXR050000 (MSGP) and TXG110000 (concrete batch) general permits. These databases incorporate permit information from the TCEQ website and are used to track inspection frequency.

Additionally, a list of active businesses within the City of Austin Full Purpose area is obtained from the Texas State Comptroller and queried for SIC codes that require MSGP coverage. The resulting list of permittable businesses is cross-referenced with the NOI and NEC databases to determine permit coverage. Remaining unpermitted businesses are inspected according to a sector forecast schedule. Pre-inspections are conducted by desktop review to exclude obvious closed or non-industrial facilities.

During a field inspection, if a facility is identified as requiring a MSGP and does not currently possess a permit, staff informs facility representatives of the regulations and their responsibility to obtain permit coverage. If the facility does not obtain proper permit coverage during the provided compliance period or is violating certain provisions of a storm water permit, the facility is referred to the TCEQ.

If illicit discharge violations are detected during an inspection, enforcement procedures are initiated as described in MCM3 (IDDE Investigations & Procedures (i,vii), Enforcement Procedures). Inspections may also identify conditions that do not constitute a violation but are areas of concern. In these instances, WPD issues recommendations to the facility operator via the written inspection report. Follow-up inspections are conducted for violations and areas of concern with the potential to create a polluting discharge.

Industrial and High Risk Monitoring Program

Permit language from Part III.B.2.h.iii:

- A) *This program must include monitoring for pollutants in stormwater discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g., transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the MS4.*
- B) *The Industrial and High-Risk Runoff Monitoring Program must include the collection of quantitative data on parameters which have been identified by the permittee as a pollutant of concern for that facility and shall:*
 - 1) *coincide with the corresponding industrial sector-specific requirements of the TPDES Multi-Sector General Permit No. TXR050000 or any applicable general permit issued after September 29, 1995, and is not contingent on whether a particular facility is actually covered by the general permit;*
 - 2) *coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility; and*
 - 3) *include pollutants of concern for the stormwater discharge from that facility as identified by the permittee.*
- C) *To avoid the duplication of efforts, the permittee may review data collected by a facility as required by any individual or general permit for that facility rather than performing additional sample collection and analysis.*
- D) *In lieu of the monitoring discussed above, the permittee may accept a "no exposure" certification from a facility, which certifies that raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to stormwater and are not expected to be exposed to stormwater for the certification period. Where a permittee accepts a "no exposure" certification, the permittee shall conduct site inspections of the facility not less than once per permit term. To verify the "no exposure" certification; the permittee may waive this inspection for those facilities which participate in the TCEQ's Small Business and Local Government Assistance Compliance Commitment (C2) Program.*
- E) *The permittee may also waive monitoring requirements under this permit for facilities that it determines are in compliance with the TPDES Multi-Sector General Permit No. TXR050000.*

Industrial facilities in the City of Austin Full Purpose Area have one of the industrial SIC codes or narrative industrial activity descriptions that require TPDES permit coverage. To avoid the duplication of efforts, the City of Austin will not conduct industrial and high-risk monitoring at these facilities and will instead conduct inspections at permitted facilities maintaining either an NOI or NEC. Inspections will be conducted once per permit term to verify compliance with TXR050000. If a permitted facility is out of compliance with TXR050000 requirements after the provided corrective action timeframe, WPD will notify the TCEQ. If it is determined that a high-risk facility does not meet the eligibility requirements for TPDES storm water permit coverage, a City Stormwater Discharge Permit may be required for the facility.

Development Services Department (DSD)

Underground Storage Tanks (USTs)

The UST Leak Detection Program continues to focus efforts on all permittable facilities with USTs found within both the Barton Springs Zone (BSZ) and the Full Purpose City limits. UST Program staff conducts inspections of identified facilities, and construction of new facilities ensuring compliance with City Water Quality Codes. Inspections activities include monitoring, leak detection, and verifying proper storage. The UST Program will issue UST storage and/or construction permits to facilities in the targeted BSZ area.

Austin Water (AW)

General Industrial User Inspections

AW has a pretreatment team called Industrial Waste (IW) which oversees General Industrial Users (GIUs) such as restaurants, auto shops, and car washes for compliance with AW's wastewater regulations. This prevents illegal or untreated waste from discharging to the sanitary sewer, and decreases opportunities for Fats, Oils and Grease to enter the sanitary or storm sewer (via SSOs). They ensure pretreatment devices are installed and maintained, and follow-up after SSOs occur. Inspections are conducted using a variety of methods including requesting grease trap pump-out manifests, reviewing plumbing fixtures to verify compliance with approval letters, dye tracing plumbing lines, requesting TV inspections as needed, examining grease trap's infrastructure, etc. IW has the legal authority to request repairs be performed or enforce on non-compliant GIUs.

 MCM 5 Industrial and High-Risk Runoff Stormwater Inspection Program			
Activity/BMP	Quantifiable Target	Frequency / Deadline	Department
Inspections of locations with Hazardous Materials Permits	Inspect 300 permitted locations	September 30 th , annually	AFD
Investigation of complaints at locations without and with Hazardous Material Permits.	Investigate 100% of all complaints	Immediately to within five business days of the report, based on the severity reported by the complainant.	AFD
Landfill Complaint Investigations	Respond to 100% of landfill complaints received	Investigated upon receipt of complaint	WPD
City Stormwater Discharge Permit (High Risk Facilities)	Issue COA Stormwater Discharge Permit to 100% of identified high-risk operations in full purpose area	Annually. City Stormwater Discharge permits issued January of each year.	WPD
	Inspect 10% of facilities with a City Stormwater Discharge Permit	September 30 th , annually	WPD
TPDES TXR050000 and TXG110000 (Industrial Facilities)	Inspect 20% of facilities with NOI or NEC	September 30 th , annually	WPD
	Screen 100 unpermitted businesses from Comptroller's list for permit eligibility.		WPD
Underground Storage Tank Construction permits reviewed	Review all UST Construction permits within 30 days	September 30 th , annually	DSD
UST renewal application (every 3 years)	Review all UST renewal applications with 30 days	September 30 th , annually	DSD
UST facility Inspections	Inspect 90% UST facilities annually.	September 30 th , annually	DSD
New UST Construction Inspections	Inspect 90% New UST installations annually.	September 30 th , annually	DSD
General Industrial User Inspections	Conduct inspections at a minimum of 50 industrial user facilities.	September 30 th , annually	AW-Industrial Waste

MCM 6. Construction Site Storm Water Runoff

WQ0004705000, Part III, Section B.2.f.

Development Regulations, Construction Site Inspections and BMPs (i-iv)

- i. *The permittee shall continue to implement a program to reduce the discharge of pollutants into the MS4 from construction sites. This MCM must include an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law. The permittee shall continue to ensure that the existing program is revised as necessary to address construction projects that result in a land disturbance of one acre or more, including activities disturbing less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more.*
- ii. *This MCM must include:*
 - A) *requirements to use and maintain appropriate erosion and sediment control BMPs to reduce pollutants discharged to the MS4 from construction sites;*
 - B) *requirements for construction site operators to address the control of site waste, such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste;*
 - C) *requirements for inspections of construction sites and enforcement of control measure requirements;*
 - D) *requirements for the permittee to provide appropriate education and training measures to construction site operators;*
 - E) *notifications to construction site operators of their potential responsibilities under the NPDES or TPDES permitting regulations and permits for construction site runoff;*
 - F) *procedures for site plan review that incorporate consideration of potential water quality impacts;*
 - G) *procedures for receiving and considering input received from the public, and*
 - H) *a description of a program to implement and maintain structural and non-structural BMPs to reduce pollutants in stormwater runoff from construction sites to the MS4, which must include a description of the following:*
 - 1) *procedures for site planning which incorporate consideration of potential water quality impacts;*
 - 2) *requirements for nonstructural and structural best management practices;*
 - 3) *procedures for identifying priorities for inspecting sites and enforcing control measures that consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and appropriate educational and training measures for construction site operators.*
- iii. *Lists of Sites. The permittee shall maintain a current list of construction sites that discharge directly to the MS4 and that have been issued an NPDES or TPDES permit. The list must include the name, location and permit number of the discharges that have been authorized under an NPDES or TPDES stormwater discharges permit for construction activities (if known).*
- iv. *The permittee shall ensure and demonstrate that this MCM includes the following elements, in addition to those listed above:*
 - A) *The permittee shall require construction site contractors to implement appropriate erosion and sediment control BMPs and control waste (for example, discarded building materials, concrete truck washout water, chemicals, litter; and sanitary waste) at the construction site that may cause adverse impacts to water quality.*

- B) The permittee shall develop procedures for site plan reviews that incorporate consideration of potential water quality impacts, receipt and consideration of information submitted by the public, and site inspections and enforcement of control measures to the extent allowable under state and local law.*

The Development Services Department (DSD) requires the approval of a site plan and release of a site development permit for multifamily or commercial development on a specific parcel of land. Commercial construction includes all construction over 1 acre, including multi-family developments. Residential construction includes single family homes with under 1 acre of disturbance and not part of a common plan of development. For a detailed description of responsibilities and procedures related to the site development plan regulations, please refer to the Areas of New Development and Significant Redevelopment Section 2 of the SWMP.

The City's Land Development Information Services provides the first one-on-one interaction with the development community. This team provides land use consultations, zoning reviews, and site plan exemptions and corrections for the Land Development Review process. Due to the level of expertise among team members, they also provide consultation services for technical disciplines in Plan Review, including Drainage and Water Quality, Community Trees, and Environmental. Team members are positioned to provide the best possible service within their respective specializations while also supporting needed land use consultations and related services for the community.

All construction and development projects involving land-disturbing activities within the City are required to implement an Erosion and Sediment Control (ESC) plan in accordance with technical guidelines found in the City's Environmental Criteria Manual (ECM), and Drainage Criteria Manual (DCM). DSD environmental inspectors verify compliance with approved development permits, BMPs, and the ESC plan during routine and complaint inspections. DSD environmental inspectors also ensure proper construction of drainage and water quality facilities. Environmental inspection staff aid contractors with compliance of site construction sequencing of water quality and drainage structures, and maintenance of ESCs.

At the commencement of development or construction activity, the project site engineer/manager is required to contact the supervisor of DSD Environmental Inspection, and/or the Public Works Department (PWD) Construction Inspection Section, depending on the type of project. A pre-construction meeting is conducted at project inception, to verify installation of the ESC's and BMPs per the approved plan. During this pre-construction meeting, state requirements for plan submittal over the Edwards Aquifer Recharge and Contributing Zones are discussed and a handout is presented to construction representatives including further information regarding this requirement.

The ESC plan indicates appropriate areas for staging, construction waste, spoils, concrete washout, dumpsters for litter, and sanitary waste from portable toilets. The pre-construction meeting handout includes a page stating, "all spoils, fill, and waste from the construction site is required to go to an approved landfill." The inspector may request trip tickets from construction site managers to verify disposal.

There are several "called" inspections during construction that the contractor schedules with DSD. These may include pre-construction, pre-pour, interim tree, and final inspections. Routine commercial and residential inspections are also conducted during active construction. Routine inspections will be conducted on a monthly, bi-monthly, or quarterly basis, depending on the compliance history of the site. If a site has a positive compliance history, it may receive a bi-monthly or quarterly inspection frequency in addition to called/scheduled inspections. This would incentivize operators to maintain a compliant site. For non-compliant sites, monthly inspections would still occur. Called inspections will still be mandatory; however, if the site is compliant during the called inspection, DSD may not also conduct a routine inspection during the same month.

Citizens in the City call Environmental Inspection or 311 with compliance concerns. Environmental Inspection investigates these complaints, documents the investigation, and reports the findings to the concerned citizen.

If during site inspections the inspector finds the applicable ESC plans to be inadequate, minor modifications to the approved ESC plan and construction sequencing plan may be

made in the field to upgrade erosion controls without written DSD approval. Major modifications may require a plan correction. If a development project is non-compliant with the conditions of the development permit, an inspector may give the project manager a verbal warning with instructions to achieve compliance within 24 to 48 hours. This action is followed by a written warning if remedial action was not taken to resolve the problems. If compliance is not achieved, a cease-and-desist order may be issued, whereby all work at the project site is stopped until compliance is achieved. A Stop Work Order is posted at the site, and a written notice of the cease-and-desist order is mailed to the alleged violator with an explanation of the site factors resulting in non-compliance.

DSD enforces City Land Development Code and water quality codes and regulations. If a development project is if under construction without a valid development permit, is non-compliant with water quality regulations, or a high priority violation exists, a cease-and-desist order may be issued immediately.

At the final inspection, the appropriate inspector confirms the proper completion of permanent stormwater and water quality controls and site restoration as a prerequisite for project acceptance and issuance of a certificate of occupancy.

DSD will continue to dedicate environmental inspectors to the Barton Springs Zone (BSZ) to ensure development projects comply with applicable erosion control standards. This program coordinates with and assists inspectors from other governmental entities in controlling erosion from active construction sites. Such inspection coordination most commonly occurs with Travis County and the TCEQ.

Public Education for Construction Site Operators

In the effort to reduce pollutant discharges into local waterways from construction related activities, the City of Austin has developed and implemented a variety of public information and education tools for construction site operators and the development community.

The City provides educational information related to storm water management techniques related to ESCs, construction sequencing, permanent water quality controls, and site restoration activities. The City provides this information to developers and construction site operators in the following ways:

- Written materials, Land Development Code, Drainage, Environmental Water Quality, Transportation Criteria Manuals, and Standards Manual.
- City of Austin Development Website: Codes and Criteria online.
- One-on-One Meetings: Development Assessment Meeting, Pre-Construction Meeting

The City has found that written materials are an effective tool in communicating regulatory guidelines, technical guidance, and basic non-technical information to both the development and construction communities. WPD and DSD have developed guidance documents such as fact sheets on good housekeeping practices for construction sites and detailed criteria for the design and implementation of various storm water control structures.

City inspection staff have opportunities for stormwater inspector training and certification. Training on the TPDES Construction General Permit has been developed specifically for the City's construction project management and stormwater inspection staff to relate regulatory requirements.

 MCM 6 Construction Site Stormwater Runoff			
Activity/BMP	Quantifiable Target	Deadline	Department
Routine Inspections	Routine inspections of 80% active commercial sites	September 30 th , annually	DSD
Routine Inspections	Routine inspections of 80% active residential sites	September 30 th , annually	DSD
Complaints	Respond within 24 hours (or next business day) to 90% complaints	September 30 th , annually	DSD
Pre-construction Meeting	Conduct pre-construction meeting within 3 business of request	September 30 th , annually	DSD

MCM 7. Public Education, Outreach, Involvement and Participation

WQ0004705000, Part III, Section B.2.g.

Public Education and Outreach (i)

A) The permittee shall document and ensure that the SWMP promotes, publicizes, and facilitates public education and outreach to residents, visitors, public service employees, businesses; commercial and industrial facilities, and construction site personnel and provide justification for any group that is not addressed by the program. The permittee shall document the activities conducted and materials used to fulfill this program element and provide enough detail to demonstrate the amount of educational and outreach resources and materials used to address each group.

B) The permittee shall continue to implement a public education and outreach program component to promote, publicize, and facilitate:

- 1) public reporting of illicit discharges or improper disposal of materials, including floatables, into the MS4;*
- 2) the proper management and disposal of used oil and household hazardous wastes; and*
- 3) the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors.*

The City of Austin's public education programs encouraging environmental stewardship are implemented by the Watershed Protection Department (WPD), Austin Resource Recovery (ARR), and Austin Water (AW). Advertising, education, and outreach activities are used to maximize participation in water quality, waste reduction, and conservation programs. The target audience for educational programs includes residents, students, visitors, businesses, and professionals.

WPD has primary responsibility for the management of the water quality component of these programs. ARR is responsible for the trash abatement, hazardous chemical, and recycling components. AW focuses on reducing Fats, Oil, and Grease (FOG) from entering our sanitary sewer system and causing overflows. When possible, these departments form partnerships to increase their ability to reach a larger audience with a wider, yet compatible, message.

Watershed Protection Department (WPD)

The public education and awareness efforts of WPD encompass several different elements reflecting the wide variety of water quality-related programs that are supported by the City.

Grow Green – This interdepartmental homeowner and landscape professional outreach program provides Earth-Wise gardening tips in participating retail and wholesale nurseries, home improvement centers, non-profits, and City locations in Travis County. The Watershed Education group coordinates this effort to provide “one-stop shopping” for citizens for all their earth-wise gardening needs. Fact sheets help homeowners make informed decisions on less toxic alternatives for yard care. A Native and Adapted Plant Guide is also available to encourage the use of plants that require fewer pesticides and less water. The guide is available as an online searchable database and in hardcopy. Grow Green offers classes for homeowners and provides Landscape Professional training.

Integrated Pest Management – The City’s IPM program produces fact sheets, maintains a web page containing information on least toxic pest management techniques, provides presentations and may advertise through local media. Assistance is available to City of Austin staff and the public upon request.

Earth Camp – This program is offered to fifth grade students in Title-1 Austin public schools and focuses on watershed education. Earth Camp provides teacher training, curriculum, and hands-on educational field trips. The City supports this program with staff, training, equipment, and bus funding.

Earth School - This one-hour, in-school lesson offers hands-on watershed education to Austin Independent School District (AISD), Eanes Independent School district (EISD) and Del Valle Independent School District (DVISD) fifth graders. Using models developed by WPD and other educational sources, students learn how storm water carries pollutants to creeks and aquifers. Earth Camp and Earth School are offered to 100% of AISD elementary schools.

Watershed Detectives – This middle school curriculum involves students in a hands-on simulation of an investigation of a fish kill. Students use topographic maps

and a watershed model to determine flow paths and then locate the source of contamination by conducting simulated tests. They also learn about flood safety.

Hydrofiles - This program teaches high school students how to monitor water quality in our creeks. Classes are also given the opportunity to go on field trips to local creeks or caves.

Storm Drain Marking - Volunteers are recruited to affix tile markers to storm drains, informing citizens, “*No Dumping, Drains to Creek*”. The tiles are available in both English and Spanish.

Scoop the Poop: In partnership with the Parks and Recreation Department (PARC), pet waste bag dispensers have been placed in City parks to encourage dog owners to clean up after their pets. The program also partners with dog focused non-profits to raise awareness about the importance of picking up pet waste by distributing branded giveaways. Educational information is published in newsletters and on social media.

East Austin Environmental Initiative (EAEI) - This program focuses on environmental issues and City activities affecting east Austin communities. WPD engages community stakeholders and participates in neighborhood cleanups, meetings, and special events.

Shade Tree Mechanic – This program assists Austin citizens who conduct personal vehicle repairs at home. While supplies last, citizens can obtain a free oil change bucket and educational materials by providing proof of residency at the WPD office or the Recycle and Reuse Drop-off Center. If there is a complaint reported to the 24-Hour pollution hotline, WPD staff may provide an oil change bucket during the inspection of the home practice.

As funding allows, the City runs advertisements and radio spots in the local media to promote water quality education. The City of Austin also coordinates its various public education and awareness efforts with other governmental entities. Partners have included Austin Independent School District, Lower Colorado River Authority, Keep Austin Beautiful, Texas Parks and Wildlife Department, The Barton Springs/Edwards

Aquifer Conservation District, Friends of the Colorado River, Children in Nature Collaborative of Austin, and other groups.

Pollution Hotline / Public Education

The 24-Hour Pollution Hotline is a system for the public to report pollution concerns 24 hours a day, seven days a week. WPD investigates calls received on the hotline to identify potential pollutants, sources/causes, and the party responsible. WPD promotes the hotline in a variety of ways. Some of the Pollution Hotline promotional materials are published in both Spanish and English. The following is a list of promotional materials and activities the City may use:

- Newsletters, fact sheets and specific promotional materials such as brochures and magnets are provided to the public at trade shows, libraries, community centers, community events and a variety of speaking engagements.
- The WPD website provides information on the Pollution Hotline and common pollutants and potential sources.
- Internet advertisements, radio announcements, and newspaper advertisements are used to publicize the hotline and specific pollution prevention initiatives.
- Brochures promoting the Pollution Hotline and specific pollution prevention practices may be provided to citizens during complaint investigations.

Austin Resource Recovery (ARR)

ARR implements education programs that reduce the generation of litter and promote proper disposal of household hazardous waste.

Pay-As-You-Throw Educational Support: Pay-As-You-Throw (PAYT) is a garbage collection system that encourages recycling and “smart” trash habits. The PAYT program reaches residential and commercial customers through billboards, printed ads, utility bill inserts, and the City's website.

Curbside Single Stream Recycling Educational Support: The Curbside Single Stream Recycling Program provides bi-weekly collection of newspaper, corrugated cardboard, glass bottles and jars, tin and aluminum cans, and plastic items to all households served by City garbage collection. The program includes the Block Leader Program and Recycling Pays projects to promote public awareness and

participation in the program. The Recycling Program reaches various audiences through brochures, magnets, billboards, radio ads, public service announcements, print ads, seasonal event fliers, compost kitchen buckets made from recycled materials, and rulers and pencils made from 50% post-consumer material.

Recycle & Reuse Drop Off Center (RRDOC) Education: The City of Austin operates a permanent facility to collect hazardous home chemicals and waste oil. ARR helps direct City of Austin and Travis County citizens to properly dispose of waste and prevent disposal in the landfill or dumping on the ground where chemicals can cause pollution.

A key to the RRDOC Program's long-term success is effective public education on aspects of waste reduction, pollution prevention, and consumer behavior. The program's educational mission is to encourage the use and purchase of non-toxic or less-toxic alternative products, wise consumer practices, and to avoid purchase or acquisition of materials and products that may not be used. One of the program goals is for residents to need RRDOC programs less often and drop off less material in the future. Information is provided over the telephone, webpages, to ARR/AW customers through utility bills, fliers, newspaper advertising, presentations to area schools, professional organizations, environmental conferences, and outreach at the facility during collection activities.

Austin Water (AW)

AW's primary goal with current customer outreach programs is geared at protecting the City's sanitary sewer system by promoting the proper disposal of commercial and residential fats, oil and grease (FOG) and appropriate discarding of items that are frequently flushed down the toilet but should not be, like disposable wipes and unused pharmaceuticals.

Stop the Blob: The "Stop the Blob" program educates the public on the hazards of disposing FOGs down the drain in an effort to reduce sanitary sewer overflows. Along with that is emphasizing the economic and environmental benefits of proper disposal. This outreach is targeted toward single-family residential households,

multi-family households, and commercial facilities with FOG sources as well as the public at large.

There is a dedicated “Stop the Blob” webpage on the City’s website, which includes links to printable educational resources in both English and Spanish related to the “Stop the Blob” campaign. The “Stop the Blob” message has also been incorporated with the AW Dowser Dan School Assembly Program. In addition, the AW social media accounts are updated periodically with reminders to customers to properly dispose of FOG, especially towards the end of the year when people are preparing holiday meals at home.

The resources related to this program include brochures, magnets, door hangers, digital ads, radio ads and print ads. Additionally, during “Stop the Blob” outreach events, community members are offered reusable funnels, tiered can lids, jar openers, and pan scrapers to assist with proper disposal. Each of these items has an AW or “Stop the Blob” imprint. Information for ARR’s Recycle & Reuse Drop-off Center is presented at outreach events and on the “Stop the Blob” webpage for those with larger amounts of cooking oil to dispose of.

 MCM 7 Public Education and Outreach			
Activity/BMP	Quantifiable Target	Deadline	Department
Elementary School: Earth Camp and Earth School	Offer Earth Camp or Earth School to 100% of AISD Elementary Schools each school year	September 30 th , annually	WPD
Storm Drain Marking	Support at least one storm drain marking event	Quarterly	WPD
Grow Green	Promote the website 4 times annually	September 30 th , annually	WPD
Scoop the Poop	Fulfill 100% of requests from the Parks and Recreation Department for pet waste bags and dispensers	September 30 th , annually	WPD
Scoop the Poop	Mail information to 25 pet-friendly business and 25 pet-friendly apartments	September 30 th , annually	WPD
East Austin Environmental Initiative	Participate in at least 2 community events each year	September 30 th , annually	WPD
Shade Tree Mechanic	Provide educational information and free oil-change bucket to 100% of citizen requests	Each request	WPD
Pollution Hotline	5,000 online advertising interactions (community member <u>clicks</u> on web advertisement)	September 30 th , annually	WPD
	Quarterly post on WPD social media	September 30 th , annually	WPD
Public Outreach-Stop the Blob!	4 outreach events/year	September 30 th , annually	AW
Social Media Campaign-Stop the Blob!	Quarterly post on AW social media	September 30 th , annually	AW
Storm water education specific social media posts	12 social media posts focusing on proper disposal of plastic film, HHW and how to properly collect and set out leaves and yard trimmings.	September 30 th , annually	ARR
Inclusions in electronic newsletter (either as a feature or side bar item)	4 mentions in newsletter about proper disposal of plastic film, HHW, and collecting and setting out leaves and yard trimmings.	September 30 th , annually	ARR

Public Involvement and Participation (ii.)

The permittee shall continue to develop and implement a public involvement and participation program which complies with State, Tribal, and local public notice requirements. This program element must include opportunities for a wide variety of constituents within the MS4 area to participate in the SWMP development and implementation.

The City of Austin used to maintain a combination of co-sponsorships and contracts for different programs with Keep Austin Beautiful (KAB) Program, a 501(c) (3) non-profit organization. In 2021, the City changed to one contract in which different organizations compete for varying components.

Extensive coordination occurs between contract program staff and the staff of City (primarily WPD and ARR) and County programs that benefit from public education and awareness efforts in the areas of water quality, non-point source pollution, littering, recycling, and beautification. Continuing support of this program is provided yearly by the City of Austin and Travis County through funding approval during budget cycles. Responsibility for the operations of the program rest with the contracted staff and policy and oversight is the responsibility of a volunteer board of directors.

The programs target all business and citizens in the greater Austin area through activities that center on litter abatement, recycling, environmental education, and beautification. The primary goal is to clean, beautify and protect the Austin environment through physical improvements and hands-on education. Major activities sponsored or supported through the contract in past years have included the following:

- Environmental Education - Providing environmental presentations and activities to students K-12.
- Awards - Recognizing positive behavior in all segments of the community.
- Clean Sweep - Providing opportunities for grassroots involvement in City-wide clean-ups.
- Community Cleanups - Providing opportunities for grassroots involvement in cleanups year-round.
- Clean Creek Campaign (KAB & WPD)
- Adopt-a-Creek – providing the community with an opportunity to engage in stewardship of local creeks and creekside areas and help keep them clean.
- Clean Lady Bird Lake

Since the individual components within this section are all implemented by organizations external to the City of Austin, a measurable goal has been established related to the contract.

 MCM 7 Public Education, Outreach, Involvement and Participation <i>Public Involvement and Participation</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Contract for projects and programs in the areas of cleanup, beautification, habitat and creek restoration, and education	Maintain 1 contract with external organizations	September 30 th , annually	WPD

MCM 8. Monitoring Programs

WQ0004705000, Part III, Section B.2.h.

Dry Weather Screening (i)

This program shall continue the permittees' efforts to detect the presence of illicit connections and improper discharges to the MS4. All areas of the MS4 must be screened at least once during the permit term. The permittee may utilize modified screening methods based on experience gained during previous field screening activities; the screening methods are not required to conform to the protocol in 40 CFR § 122.26(d)(1)(iv)(D). Sample collection and analysis is not required to conform to the requirements of Part V, Section B.2. of this permit, "Test Procedures;" however, samples taken to confirm (e.g., in support of possible legal action) a particular illicit connection or improper disposal practice must conform to the requirements of Part V, Section B.2. of this permit, "Test Procedures."

The Dry Weather Screening Program aims to detect the presence of illicit connections and discharges to the MS4. In past dry weather screening activities, relatively few outfalls were found to have dry weather flow. In response to new requirements to the MS4 permit in 2018, the screening process was updated to target outfalls in areas of the City where illicit discharges are more likely to occur based on historic pollutant data while accounting for every watershed within COA jurisdiction. Selected target outfalls covering all areas of the MS4 are screened at least once during the permit term.

WPD screens target outfalls for flow during dry weather periods (June – September and no rainfall in the previous 72 hours). Flows from outfalls that are identified during screening undergo analysis to determine if they are compliant under the COA TPDES MS4 permit, allowable discharges section. Records for dry weather screening are created and maintained in a digital database. Flows determined to be non-compliant with permit requirements are further evaluated and recorded as a pollution investigation.

 MCM 8 Monitoring Programs <i>Dry Weather Screening</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Dry Weather Screening of target outfalls in MS4 (675 outfalls total)	20% (~135 outfalls) per year, until all target outfalls have been screened once in the permit term	September 30 th , annually	WPD

Wet Weather Screening (ii)

The permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the MS4.

The wet weather screening program shall:

- A) screen the MS4, as specified in the SWMP; and*
- B) specify the sampling and non-sampling techniques to be used for current screening and also for follow-up screening.*

Sample collection and analysis for the Wet Weather Screening Program is not required to conform to the requirements of Part V, Section B.2. of this permit, "Test Procedures;" However, samples taken to confirm (e.g., in support of possible legal action) a particular illicit connection or improper disposal practice must conform to the requirements of Part V.B.2. of this permit, "Test Procedures."

WPD implements a program that uses a visual assessment to provide a post-storm event evaluation of the storm water runoff in the Austin area waterways. The visual assessment will allow WPD to:

- detect excessive levels of pollutants in waterways after storm events
- document information related to the type of pollutants present in waterways after storm events
- provide a limited assessment of storm water impact on aquatic life
- detect acute pollution events
- refer any pollutant discharges to the Pollution Hotline for an investigation

Because the majority of the MS4 discharges into nearby waterways, the City will use watersheds to define the MS4 areas and track the progression of the monitoring activities. The proposed monitoring sites within each watershed are selected based on the following criteria:

- within the City's permit area
- along the main stem of the stream
- longitudinal distribution along the stream length
- ability for staff to access site safely
- ability to determine the MS4 area discharging to the stream segment upstream of the site;

The wet weather monitoring program will complete visual assessments of storm water flow in the following watersheds: Barton, Blunn, Bull, Buttermilk, Carson, Country Club East, Country Club West, Decker, Dry Creek, Eanes, East Bouldin, West Bouldin, Fort Branch, Harper's Branch, Huck's Slough, Johnson, Little Walnut, North Boggy, South Boggy, Tannehill Branch, Taylor Slough North, Taylor Slough South, Waller, Walnut, West Bouldin, West Bull, and Williamson.

Each watershed monitoring site(s) will be screened at least once during the permit term. A visual assessment of storm water flow will be completed at each monitoring site within 36 hours of a storm event. For the purposes of this monitoring program, a storm event will be defined as any event with greater than 0.10 inches of rain. After determining that a storm event has occurred within the target watersheds, WPD staff will conduct a visual evaluation related to the type of pollutants that may be present in the storm water flow at each monitoring site. If there is evidence of a pollution event, the appropriate department will be notified, and an investigation may be initiated.

 MCM 8 Maintenance Activities <i>Wet Weather Screening</i>			
Activity	Measurable Goal	Deadline	Department
Wet weather Monitoring	Conduct wet weather monitoring in 5 watersheds. If 5 monitoring events are not possible in one year due to drought or untimely rain events, monitoring events will be increased the following year.	September 30 th , annually	WPD

Industrial and High Risk Runoff Monitoring Program (iii)

Please refer to the MCM 5 Industrial High Risk Monitoring Program for further info.

Storm Event Discharge Monitoring (iv.)

Please refer to Part IV of the permit for requirements.

The City of Austin Watershed Protection Department (WPD) has implemented a program utilizing the Part IV. A.2. *Option 2: Representative Rapid Bioassessment Monitoring*. As such, during the five-year permit period, WPD will continue to monitor and assess the ecological integrity and the degree of impairment of creeks within the watersheds of the Barton Springs Zone (BSZ) using the Environmental Integrity Index (EII). WPD staff will continue to conduct EII assessments of the Onion Creek, Barton Creek, Little Barton Creek, Williamson Creek, Slaughter Creek, Bear and Little Bear Creek watersheds located within the Barton Springs Zone on a rotating (biennial or comparable) monitoring schedule as described below.

The EII is a long-term (since 1996) and comprehensive base-line monitoring program that collects data on chemical, physical, and biological parameters to assess the integrity of all of Austin's waterways in the context of less-impacted suburban and rural headwaters. Historically the EII began monitoring streams on a rotating basis every three years, but in 2010 increased frequency to every other year, and will again be adjusted in the near future (~2023) to increase resolution with a more strategic and mathematically substantiated sampling schedule with a refined parameter list that incorporates GIS information and modelling. Although groupings may change, the EII program has historically grouped the data into six categories:

- **Contact Recreation (Swimming/Wading)** - The suitability of a water body for contact recreational use is evaluated using *Escherichia coli* bacteria concentration, which is an indicator of fecal contamination. Concentration numbers are converted to an index score relative to common State of Texas criteria for human health protection.
- **Non-Contact Recreation/Aesthetic** - The parameters included in the non-contact recreation field assessment include water surface appearance, litter, odor, clarity, and percent algae cover. Scoring is primarily from visual assessment by trained staff.
- **Water Quality** - Water quality subcomponents are calculated from chemical analysis of grab samples from all study sites during baseflow conditions.

- **Sediment Quality** - Sediment sampling is also conducted at one site in each watershed located near the mouth. Scoring is from concentration data compared to local reference conditions for water and aquatic toxicity effects levels published for sediment.
- **Habitat Quality Index** - Parameters used to measure habitat quality include instream cover, embeddedness, velocity/depth regimes, channel alteration, sediment deposition, frequency of riffles, channel flow status, condition of banks and riparian zone width. Scoring is from field measurements and visual assessment by trained staff.
- **Aquatic Life Support** - Aquatic life support evaluates biological health using benthic macroinvertebrate and diatom community structure. Scoring is from biological indices calculated from taxonomic identification and compared to a reference condition.

Raw data is retained in perpetuity in the City of Austin Watershed Resource Monitoring (WRM) database. Data is currently converted to scores for the six sub-indices and these sub-indices are averaged to obtain one EII watershed score for each monitoring reach and whole watershed. EII scores range from 0 to 100 and are characterized by using the following eight ranges: very bad (0-12), bad (13-25), poor (26-37), marginal (38-50), fair (51-62), good (63-75), very good (76-87), and excellent (88-100). EII program is currently under revision to select site locations, frequency, parameters, and scoring to provide more actionable and statistically relevant scoring more strategically.

Stormwater discharge monitoring collection activities of the MS4 will continue to be completed by the Watershed Protection Department at four identified outfalls within permit years one and four.

Floatables Monitoring (v.)

The permittee shall implement a floatables program as described in Part IV, Section B of this permit.

Please refer to MCM 1 of the SWMP for information on the Floatables Monitoring Program.

Additional Water Quality and Biological Monitoring (vi.)

Barton Springs Complex Water Quality Monitoring

WPD conducts a variety of ambient and storm water monitoring associated with Barton Springs Pool. A data logger is continually deployed (except for maintenance and data retrieval) by a third-party vendor at a cave at the bottom of Barton Springs Pool to collect basic physical parameters. Other monitoring activities include:

- Intensive spring outlet and surface water sampling will continue at Barton Springs Pool. The frequency will be enough to identify trends that threaten this water resource in a timely manner. Sampling of the main Barton Spring will occur at a minimum monthly and include analysis for nutrients and Total Suspended Solids (TSS).
- Water quality sampling will be conducted at Barton Springs and at the other associated spring outlets (Old Mill and Eliza Spring) on an annual basis. Samples will be analyzed for an extensive suite of parameters including metals, volatiles, semi-volatiles, bacteria and selected pesticides and herbicides. Parameters approaching levels of concern or detected frequently enough that trends may be examined will be examined at a minimum biannually.

 MCM 8 Monitoring Programs <i>Water Quality and Biological Monitoring</i>			
Activity/BMP	Quantifiable Target	Deadline	Department
Representative Rapid Bioassessment Monitoring (EII)	Provide an assessment of at least Four (4) Watersheds on a rotational basis (see EII) within the permit area and BSZ	September 30 th , annually on rotating years as defined by the EII program	WPD
Storm Event Discharge Monitoring	Monitor four identified outfalls permit years one and four	Permit years one and four, annually	WPD
Comprehensive monitoring at Barton Springs and other associated spring outlets	Conduct one monitoring event	September 30 th , annually	WPD
Barton Springs Pool and Spring Monitoring	Conduct spring outlet and surface water sampling 1 time per month	Monthly	WPD

APPENDIX A. Municipal Facilities List

Facility Name	Address	Department
Balcones Water Reclamation	11207 Spicewood Parkway, Austin 78750	Austin Water (AW)
Brushy Creek Regional East WWTP	3939 Palm Valley Boulevard, Round Rock 78665	AW
BRA-LCRA Brushy Creek West WWTP	1114 East Austin Avenue, Round Rock 78664	AW
Dessau WWTP	1601 Fish Lane, Austin 78753	AW
Hornsby Bend BMP	2210 South FM 973, Austin 78725	AW
Lost Creek WRP	6104 1/2 Turtle Point Road, Austin 78746	AW
PDC	6310 Willhelmina Delco Drive, Austin 78752	AW
PDC 210	6310 Willhelmina Delco Drive, Austin 78752	AW
Pearce Lane WWTP	16050 1/2 Pearce Lane, Del Valle 78617	AW
River Place WRP	8825 Big View Drive, Austin 78730	AW
South Austin Regional WWTP	1017 Fallwell Lane, Del Valle 78617	AW
Taylor Lane WWTP	7535 Taylor Lane, Manor 78653	AW
Thoroughbred Farms WWTP	8520 Citation Avenue Austin 78719	AW
Walnut Creek WWTP	7113 FM 969 Austin 78724	AW
Wild Horse Ranch WWTP	10621 Blue Bluff Lane Manor 78653	AW
COA Transporter	625 E 10th Street, Ste 315 78701	AW
Albert R David WTP	3500 West 35th St 78703	AW
Berl L Handcox, Sr. WTPD	6800 N FM 620 78726	AW
Albert H Ulrich WTP	1000 Forest View Dr 78746	AW
Emma Long Metro Park WTP	1706 City Park Rd 78730	AW
Waller Creek Center	625 E 10th Street 78701	AW
Glen Bell Service Center	4907 S Industrial Dr 78744	AW
Govalle Occupational & Development Center	911 Linger Lane 78721	AW
Webberville Service Center	2600 Webberville Rd 78702	AW
Tim Louviere Service Center	6301 B Harold Ct 78721	AW
North Service Center	901 Koenig Lane 78756	AW

Chicon	411 Chicon,	Watershed Protection Dept (WPD)
Waller Creek Tunnel	500 E. 12 th St, 78701	WPD
Harold Court	6301 Harold Court, 78721(Bldg C,H,E)	WPD
E 5th	2001 E. 5 th St, 78702	WPD
Sherman Lane	901 Dalton Lane 78742	WPD
Dalton Lane	901 Dalton Lane 78742	Public Works Dept (PWD)
Meinardus	4411-A Meinardus Drive 78744	PWD
Harold Court	6301 Harold Court 78721	PWD
Kramer Lane	2412 Kramer Lane 78758	PWD
Hornsby Bend Biosolids Management Plant	2210 FM 973, 78725	Resource Recovery (ARR)
Closed FM 812 landfill	10108 FM 812, 78719	ARR
RRDOC	3810 Todd Lane, 78744	ARR
RRDOC	2514 Business Center Drive, 78744	ARR
Todd Lane	4108 Todd Lane	ARR
FS0031	5507 Fm 2222 Rd, , 78731	Austin Fire Dept (AFD)
FS0002	506 W M LK Blvd, 78701	AFD
FS0007	201 Chicon St, 78702	AFD
FS0030	1021 W Braker Ln, 78758	AFD
FS0040	12711 Harrisglenn Dr, 78753	AFD
FS0023	1330 E Rundberg Ln, 78753	AFD
FS0035	5500 Burleston Rd, 78744	AFD
FS0010	3009 Windsor Rd, 78703	AFD
FS0015	829 Airport Blvd, 78702	AFD
FS0043	11401 Escarpment Blvd, 78749	AFD
FS0001	401 E 5th St, 78701	AFD
FS0006	1705 S Congress Ave, 78704	AFD
FS0011	1691 Kinney Ave, 78704	AFD
FS0044	11612 Four Iron Dr, 78613	AFD
FS0026	6702 Wentworth Dr, 78724	AFD
FS0039	7701 River Place Blvd, 78726	AFD
FS0027	5401 Mc Carty Ln, 78749	AFD
FS0016	7000 Reese Ln, 78757	AFD
FS0022	5309 E Riverside Dr, 78741	AFD

FS0003	201 W 30th St, 78705	AFD
FS0034	10041 Lake Creek Pkwy, 78729	AFD
FS0036	500 Ralph Ablanedo Dr, 78748	AFD
FS0019	5211 Balcones Dr, 78731	AFD
FS0024	5811 Nuckols Crossing, 78744	AFD
FS0029	3704 Deer Ln, 78749	AFD
FS0014	4305 Airport Blvd, 78723	AFD
FS0008	8989 Research Blvd, 78758	AFD
FS0041	11205 Harris Branch Pkwy, 78754	AFD
FS0004	1000 Blanco St, 78703	AFD
FS0037	8700 W Sh 71, 78735	AFD
FS0020	6601 Manchaca Rd, 78745	AFD
FS0018	6369 Berkman Dr, 78723	AFD
FS0033	9409 Bluegrass Dr, 78759	AFD
FS0012	2109 Hancock Dr, 78756	AFD
FS0045	9421 Spectrum Dr, 78717	AFD
FS0042	2434 Cardinal Loop, 78617	AFD
FS0028	2410 W Parmer Ln, 78727	AFD
FS0025	5228 Duval Rd, 78727	AFD
FS0009	4301 Speedway, 78751	AFD
FS0038	10111 Anderson Mill Rd, 78750	AFD
FS0032	2804 Montebello Rd, 78746	AFD
FS0021	4201 Spicewood Springs Rd, 78759	AFD
FS0005	1201 Webberville Rd, 78721	AFD
FS0017	4128 S 1st St, 78745	AFD
Service Center 05	714 East 8th Street, 78701	Fleet Services
Service Center 06	1182 Hargrave St, 78702	Fleet Services
Service Center 13	2412 Kramer Ln, Bldg A, 78758	Fleet Services
Service Center 01	6301-A Harold Court, 78721	Fleet Services
Service Center 08	4411-D Meinardus, 78744	Fleet Services
Service Center 11	6301-J Harold Court, , Texas 78721	Fleet Services
Service Center 12	4108 Todd Lane, , Texas 78744	Fleet Services
Hielscher Tract Greenbelt	6801 La Crosse Ave., 78739	Parks and Recreation Dept
Tom Lasseter-South Lamar Neighborhood Park	3000 Del Curto Rd., 78704	PARD
Walnut Creek Sports Park	7800 Johnny Morris Rd., 78724	PARD

Edward Rendon Sr. Metro Park at Festival Beach	2101 Jesse E Segovia St., 78702	PARD
Copperfield Neighborhood Park	1425 E Yager Ln., 78753	PARD
Eastwoods Neighborhood Park	3001 Harris Park Ave., 78705	PARD
Deer Park at Maple Run Preserve	4929 Davis Ln., 78749	PARD
Manuel and Robert Donley Pocket Park	2301 Haskell St., 78702	PARD
Brushy Creek Greenbelt	16533 Along Creek Cv. 78717	PARD
Williams School Park	605 Blue Valley Dr., 78748	PARD
North Star Greenbelt	11701 Tallow Field Way, 78758	PARD
Montopolis Practice Fields	901 Vasquez St., 78741	PARD
Murchison Pool	7022 Hart Ln., 78731	PARD
Little Stacy Neighborhood Park	1500 Alameda Dr., 78704	PARD
Gracywoods Neighborhood Park	12133 Metric Blvd., 78758	PARD
Covert Park at Mount Bonnell	3800 Mount Bonnell Rd., 78731	PARD
Lott Pocket Park	1180 Curve St., 78702	PARD
Margaret Hoffman Oak Park	315 W Cesar Chavez St., 78701	PARD
North Acres Greenbelt	1112 Hermitage Dr., 78753	PARD
Mary Dawson Pocket Park	650 Dawson Rd., 78704	PARD
Metz Neighborhood Park	2407 Canterbury St., , Texas 78702	PARD
Barwood Neighborhood Park	606 Barwood Prk., 78753	PARD
Millennium Center	1156 Hargrave St., 78702	PARD
Symphony Square	1101 Red River St., 78701	PARD
Tanglewood Neighborhood Park	11409 Rustic Rock Dr., 78750	PARD
Tarrytown Neighborhood Park	2106 Tower Dr., 78703	PARD
Trailhead Neighborhood Park	10984 Boulder Ln., 78726	PARD
Bauerle Ranch at Slaughter Creek Greenbelt	2700 Lynnbrook Dr., 78748	PARD
Ron Rigsby Pocket Park	1110 Little Elm Park, 78758	PARD
Harris Triangle	2409 Windsor Rd., 78703	PARD
Burnett "Blondie" Pharr Tennis Center	4201 Brookview Rd. 78722	PARD
Morris Williams Golf Course	3851 Manor Rd., 78723	PARD
Old San Antonio District Park	12110 Old San Antonio Rd., 78652	PARD
Oak Springs School Park	2806 Goodwin Ave., 78702	PARD
Oertli Neighborhood Park	12613 Blaine Rd., 78753	PARD
Oakwood Cemetery	1012 E 16th St., 78702	PARD

Peace Point at Town Lake Metro Park	2200 S Lakeshore Blvd., 78741	PARD
Mayfield Park	3805 W 35th St., 78703	PARD
Norman School Park	3901 Tannehill Ln., 78721	PARD
North Cat Mountain Greenbelt	6801 Cat Creek Trl., 78731	PARD
Odom School Park	1001 Sahara Ave., 78745	PARD
Onion Creek Greenbelt	7004 Onion Creek Dr., 78744	PARD
Old Bakery and Emporium	1006 Congress Ave., 78701	PARD
Onion Creek Metro Park	8652 Nuckols Crossing Rd. 78744	PARD
Sendra Mesa Neighborhood Park	4717 Davis Ln., 78749	PARD
Onion Creek Wildlife Sanctuary	4435 E SH 71, 78617	PARD
Nicholas Dawson Neighborhood Park	704 W James St., 78704	PARD
Cherrywood Pocket Park	1600 E 34th St., 78722	PARD
Dottie Jordan Neighborhood Park	2803 Loyola Ln., 78723	PARD
Gregg Hill Park at Shoal Creek Greenbelt	4105 Jefferson St., 78731	PARD
Janet Long Fish Park @ Harris Branch Greenbelt	13840 Dessau Rd., 78660	PARD
Duncan Neighborhood Park	900 W 9th St., 78701	PARD
Givens District Park	3811 E 12th St., 78721	PARD
A.B. Dittmar Neighborhood Park	1009 W Dittmar Rd., 78748	PARD
Gaines Greenbelt	4800 S Mopac Expy., 78735	PARD
Gustavo "Gus" L. Garcia District Park	1201 E Rundberg Ln., 78753	PARD
Onion Creek Soccer Complex	5600 E William Cannon Dr., 78744	PARD
Mary Ireland Graves Dougherty Arts Center	1110 Barton Springs Rd., 78704	PARD
Ellen Higgins Pocket Park	2711 Cameron Loop, 78745	PARD
Colorado/Walnut Greenbelt	8001 Delwau Ln., 78725	PARD
Alamo Pocket Park	2100 Alamo St., 78722	PARD
Andrews School Park	2303 Loyola Ln., 78723	PARD
's Colony Neighborhood Park	14501 Lippincott St. 78725	PARD
Comal Pocket Park	300 Comal St., 78702	PARD
Legend Oaks Neighborhood Park	7724 Escarpment Blvd., 78749	PARD
Brush Square (O. Henry Museum)	409 E 5th St., 78701	PARD
Oak View Neighborhood Park	10902 Oak View Dr., 78759	PARD

Northwest Balcones Neighborhood Park	10225 Talleyran Dr., 78750	PARD
Northwest Recreation Center	2913 Northland Dr., 78731	PARD
Lucy Read School Park	7509 Silvercrest Dr., 78757	PARD
North Oaks Neighborhood Park	820 Plaza Dr., 78753	PARD
Ortega School Park	5308 Chico St., 78721	PARD
Pecan Springs School Park	3312 Rogge Ln., 78723	PARD
Hubert C. Schroeter Neighborhood Park	11701 Big Trl. 78759	PARD
Downs Mabson Fields	2816 E 12th St., 78702	PARD
Dove Springs District Park	5801 Ainez Dr., 78744	PARD
Latta Branch Greenbelt	7910 Beckett Rd., 78749	PARD
Lamar Senior Activity Center	2874 Shoal Crest Ave., 78705	PARD
Kennemer Pool	1031 Payton Gin Rd., 78758	PARD
Goat Cave Karst Nature Preserve	3900 Deer Ln., 78749	PARD
Jimmy Clay Golf Course	5400 Jimmy Clay Dr., 78744	PARD
J.J. Seabrook Greenbelt	2000 Pershing Dr., 78723	PARD
Oakwood Annex Cemetery	1509 E MLK Jr Blvd., 78702	PARD
Hancock Golf Course	811 E 41st St., 78751	PARD
John Trevino Jr. Metro Park at Morrison Ranch	9501 FM 969 Rd., 78725	PARD
Hall/Goodnight Planting Strip	6305 Hall St., 78757	PARD
Shinoak Valley Greenbelt	3900 Dry Creek Dr., 78731	PARD
Meadow Lea Pocket Park	7300 S Congress Ave. 78745	PARD
East Bouldin Creek Greenbelt	901 Bouldin Ave., 78704	PARD
Heritage Oaks Neighborhood Park	2100 Parker Ln. 78741	PARD
Sir Swante Palm Neighborhood Park	200 N IH 35 Svrld SB, 78701	PARD
Shoal Beach at Town Lake Metro Park	707 W Cesar Chavez St., 78701	PARD
Evergreen Cemetery	3300 E 12th St., 78721	PARD
Conley-Guerrero Senior Activity Center	808 Nile St., 78702	PARD
Highland Neighborhood Park and Reznicek Fields	403 W St Johns Ave., 78752	PARD
Dick Nichols District Park	8011 Beckett Rd., 78749	PARD
Kendra Page Neighborhood Park	2203 Blue Meadow Dr., 78744	PARD
Joslin Neighborhood Park	2106 Cimaron Trl., 78745	PARD
Eilers (Deep Eddy) Neighborhood Park	401 Deep Eddy Ave., 78703	PARD

Mabel Davis District Park	3427 Parker Ln., 78741	PARD
Emma Long Metro Park	1600 City Park Rd., 78730	PARD
Elizabet Ney Museum	304 E 44th St. 78751	PARD
South Boggy Creek Greenbelt	7701 Circle S Rd., 78745	PARD
Southern Walnut Creek Greenbelt	6013 Loyola Ln, 78724	PARD
Southland Oaks Neighborhood Park	3505 Green Emerald Ter.,78739	PARD
Springbrook Park	1800 Picadilly Rd., Pflugerville,78664	PARD
Waller Creek Greenbelt	703 E 6th St.,78701	PARD
Walnut Creek Metro Park	12138 N Lamar Blvd, 78758	PARD
Oakhill Neighborhood Park	5408 Southwest Pkwy., 78735	PARD
Walsh Boat Landing	1600 Scenic Dr., 78703	PARD
St. Edwards Greenbelt	7301 Spicewood Springs Rd., 78750	PARD
Wooldridge Square	900 Guadalupe St., 78701	PARD
Colorado River Park Wildlife Sanctuary	5827 Levander Loop, 78702	PARD
Little Zilker Neighborhood Park	2016 Bluebonnet Ln., 78704	PARD
Musket Valley Neighborhood Park	11605 Bachman Dr., 78754	PARD
MLK Station Neighborhood Park	2907 E MLK Jr Blvd., 78702	PARD
Georgian Acres Neighborhood Park	500 E Powell Ln., 78753	PARD
Upper Bull Creek Greenbelt	7800 Spicewood Springs Rd.,78759	PARD
Longview Neighborhood Park	7609 Longview Rd., 78745	PARD
Colony Park District Park	7201 Colony Loop Dr., 78724	PARD
Waller Beach at Town Lake Metro Park	30 East Ave., 78701	PARD
Davis Hill Neighborhood Park	3402 Davis Ln., 78745	PARD
Circle C Ranch on Slaughter Creek	6301 W Slaughter Ln., 78739	PARD
Caswell Tennis Center	2312 Shoal Creek Blvd., 78705	PARD
George Washington Carver Museum	1161 Angelina St., 78702	PARD
Canyon Vista Pool	8455 Spicewood Springs Rd., 78750	PARD
Buttermilk Branch Greenbelt	7501 Bethune Ave., 78752	PARD
Bull Creek District Park	6701 Lakewood Dr.78731	PARD
Louis René Barrera Indiangrass Wildlife Sanctuary	9138 Blue Bluff Rd., 78724	PARD

Shoal Creek Greenbelt	2600 N Lamar Blvd., 78705	PARD
East Boggy Creek Greenbelt	5609 Stuart Cir., 78721	PARD
Silk Oak Neighborhood Park	3204 Silk Oak Dr., 78748	PARD
Doss School Park	7013 Northledge Dr., 78731	PARD
South Island	2205 S Congress Ave., 78704	PARD
Hill School Park	8405 Tallwood Dr. 78759	PARD
South Neighborhood Park	1100 Cumberland Rd.,78704	PARD
International Shores at Town Lake Metro Park	1800 S Lakeshore Blvd., 78741	PARD
Hartford Triangle	1605 Ethridge Ave., 78703	PARD
Hartford Planting Strip	2516 Hartford Rd., 78703	PARD
The Circle Greenbelt	1300 The Circle, 78704	PARD
South Tennis Center	1000 Cumberland Rd., 78704	PARD
Zilker Metro Park	2100 Barton Springs Rd., 78746	PARD
Mary Moore Searight Metro Park	907 W Slaughter Ln., 78748	PARD
Haskell House	1705 Waterston Ave., 78703	PARD
Heath Eiland and Morgan Moss BMX Skate Park	1213 Shoal Creek Blvd., 78701	PARD
William H. Russell Karst Preserve	3705 Deer Ln., 78749	PARD
Beverly S. Sheffield Northwest District Park	7000 Ardath St., 78757	PARD
Crestland Triangle	715 W Crestland Dr.,78752	PARD
Barton Creek Wilderness Park	3918 S Mopac Expy Svrld SB,78746	PARD
Barton Creek Greenbelt	3753 S Capital of Hwy., 78746	PARD
Barrow Nature Preserve	7515 Step Down Cv., 78731	PARD
Michael Butler Park at Town Lake Metro Park	1000 Barton Springs Rd.78704	PARD
Big Walnut Creek Nature Preserve	9221 E US 290 Hwy EB, 78724	PARD
City of /YMCA North Community Recreation Center	1000 W Rundberg Ln., 78758	PARD
Bellingham Meadows Greenbelt	7601 E Parmer Ln., 78653	PARD
Palma Plaza Pocket Park	1524 Palma Plz., 78703	PARD
St. John Pocket Park	889 Wilks Ave., 78752	PARD
Wooten Neighborhood Park	1500 Dale Dr. 78757	PARD
Walter E. Long Metro Park	6620 Blue Bluff Rd.,78724	PARD
Waterloo Neighborhood Park	500 E 12th St., 78701	PARD
Boggy Creek Greenbelt	1114 Nile St., 78702	PARD
Blunn Creek Nature Preserve	1200 St. Edwards Dr., 78704	PARD
Blunn Creek Greenbelt	1901 East Side Dr., 78704	PARD

West Neighborhood Park	1317 W 10th St., 78703	PARD
Wooldridge School Park	1410 Norseman Ter., 78758	PARD
Wunneburger Neighborhood Park	11901 Old San Antonio Rd., 78652	PARD
Yates Pocket Park	6015 Felix Ave., 78741	PARD
Grand Meadow Neighborhood Park	8022 Thaxton Dr., 78747	PARD
Heron Hollow Pocket Park	801 Payton Gin Rd., 78758	PARD
Wells Creek Greenbelt	13120 Metric Blvd., 78727	PARD
Barrington School Park	400 Cooper Dr., 78753	PARD
Williamson Creek West Greenbelt	6310 Brush Country Rd., 78749	PARD
Williamson Creek East Greenbelt	4618 E William Cannon Dr., 78744	PARD
Barton Hills School Park	2009 Homedale Dr., 78704	PARD
Battlebend Springs Neighborhood Park	121 Sheraton Ave., 78745	PARD
Houston School Park	5506 Tallow Tree Dr., 78744	PARD
Ridgeline Neighborhood Park	2701 S Lakeline Blvd., 78613	PARD
Bartholomew District Park	5201 Berkman Dr., 78723	PARD
Balcones District Park	12017 Amherst Dr., 78759	PARD
Recreation Center	1301 Shoal Creek Blvd., 78701	PARD
High Tennis Center	1717 W Cesar Chavez St., 78703	PARD
Archstone Pocket Park	4308 Staggerbrush Rd., 78749	PARD
Stephenson Nature Preserve & Outdoor Education Center	7501 Longview Rd., 78745	PARD
Gillis Neighborhood Park	2410 Durwood St., 78704	PARD
Marble Creek Greenbelt	6605 E William Cannon Dr., 78744	PARD
Lewis Mountain Ranch Neighborhood Park	8206 Lewis Mountain Dr., 78737	PARD
Brook Crest Neighborhood Park	5932 E Stassney Ln., 78744	PARD
Central Maintenance Complex at Town Lake Metro Park	2525 S Lakeshore Blvd., 78741	PARD
Shipe Neighborhood Park	4400 Avenue G, 78751	PARD
Sparky Pocket Park	3701 Grooms St., 78705	PARD
Slaughter Creek Greenbelt	10003 S 1st St., 78748	PARD
Michael Butler Shores at Town Lake Metro Park	200 S Lamar Blvd., 78704	PARD
Auditorium Shores at Town Lake Metro Park	800 W Riverside Dr., 78704	PARD
Springdale Neighborhood Park	1175 Nickols Ave., 78721	PARD

Springwoods Neighborhood Park	9117 Anderson Mill Rd., 78729	PARD
St. Elmo School Park	4312 S 1st St., 78745	PARD
Tahoe Trail Pocket Park	5205 Tahoe Trl., 78745	PARD
Steck Valley Greenbelt	8403 Adirondack Trl., 78759	PARD
Swede Hill Pocket Park	907 E 14th St., 78702	PARD
Old Moore's Crossing Neighborhood Park	7420 Apperson St., 78617	PARD
South Senior Activity Center	3911 Menchaca Rd., 78704	PARD
James A. Garrison District Park	6001 Menchaca Rd., 78745	PARD
Big Stacy Neighborhood Park	700 E Live Oak St., 78704	PARD
Commons Ford Ranch Metro Park	614 N Commons Ford Rd., 78733	PARD
Mary Frances Baylor Clarksville Pocket Park	1811 W 11th St., 78703	PARD
Brentwood Neighborhood Park	6710 Arroyo Seco, 78757	PARD
Agave Neighborhood Park	5900 Sendero Hills Pkwy., 78724	PARD
Pickfair Pocket Park	10904 Pickfair Dr., 78750	PARD
Piney Bend Neighborhood Park	8601 Piney Creek Bnd., 78745	PARD
Kealing School Park	1500 Rosewood Ave., 78702	PARD
Lower Bull Creek Greenbelt	7806 N Capital of Texas Hwy., 78731	PARD
Parque Zaragoza Neighborhood Park	2608 Gonzales St., 78702	PARD
Patterson Neighborhood Park	4200 Brookview Rd., 78722	PARD
Cherry Creek Neighborhood Park	3403 Silk Oak Dr., 78748	PARD
Maggie Boatright Area of the Bull Creek Greenbelt	6958 Spicewood Springs Rd., 78759	PARD
Gaines Park at Barton Creek Greenbelt	3918 S Mopac Expy Svr., 78746	PARD
Civitan Neighborhood Park	513 Vargas Rd., 78741	PARD
Stratford Overlook Greenbelt	3006 Stratford Dr., 78746	PARD
T.A. Brown Neighborhood Park	520 Northway Dr., 78752	PARD
Colorado River Greenbelt	7503 Shelton Rd., 78725	PARD
Mountain View Neighborhood Park	9000 Middlebie Rd., 78750	PARD
Montopolis Neighborhood Park	1200 Montopolis Dr., 78741	PARD
Vic Mathias Shores at Town Lake Metro Park	700 W Riverside Dr., 78704	PARD
Westcreek Pocket Park	6044 Westcreek Dr., 78749	PARD

Williamson Creek Central Greenbelt	5120 S 1st St., 78745	PARD
West Bouldin Creek Greenbelt	1200 S 6th St., 78704	PARD
Brownie Neighborhood Park	10000 Brownie Dr., 78753	PARD
Caldwell Treaty Oak Park	507 Baylor St., 78703	PARD
Davis/White Northeast Neighborhood Park	6705 Crystalbrook Dr., 78724	PARD
Umlauf Sculpture Garden	605 Azie Morton Rd., 78704	PARD
Norwood Tract at Town Lake Metro Park	1009 Edgecliff Ter., 78704	PARD
Longhorn Shores at Town Lake Metro Park	60 S Pleasant Valley Rd., 78741	PARD
Gaines Creek Neighborhood Park	4801 Republic of Texas Blvd., 78735	PARD
Gullett School Park	3105 Hunt Trl., 78757	PARD
Lakeshore at Town Lake Metro Park	2200 S Lakeshore Blvd., 78741	PARD
Holly Shores at Town Lake Metro Park	2711 Canterbury St., 78702	PARD
Theckla Button Park	5613 Joe Sayers Ave., 78756	PARD
Texas Oaks Neighborhood Park	9400 Oaks Dr., 78748	PARD
Scenic Brook Pocket Park	7300 Oak Meadow Dr., 78736	PARD
Schieffer Tract	3404 Hycreek Dr., 78723	PARD
Buttermilk Neighborhood Park	7500 Blessing Ave., 78752	PARD
College Row Pocket Park	1901 E 11th St., 78702	PARD
Wood Street Settlement Button Park	702 Wood St., 78703	PARD
Hill Country View Neighborhood Park	6901 Pasture Rd., 78749	PARD
Upper Little Walnut Creek Greenbelt	8512 N IH 35 SVRD SB, 78753	PARD
Davis Spring Special Park	9819 Neenah Ave., 78717	PARD
Red Bluff Nature Preserve	5607 Harold Ct., 78721	PARD
Rinard Creek Greenbelt	10625 1/2 Bradshaw Rd., 78747	PARD
Country Club Creek Greenbelt	3109 Burleson Rd., 78741	PARD
Elroy Neighborhood Park	7527 Elroy Rd., 78617	PARD
Forest North Neighborhood Park	13320 Lyndhurst St., 78729	PARD
Veterans Pocket Park	2200 Veterans Dr., 78703	PARD
Zilker Nature Preserve	301 Nature Center Dr., 78746	PARD
Decker Tallgrass Prairie Preserve	8001 Decker Ln., 78724	PARD
Stillhouse Hollow Nature Preserve	7810 Sterling Dr., 78731	PARD

Stoney Ridge Neighborhood Park	7000 Moores Crossing Blvd., 78617	PARD
Riata Neighborhood Park	12401 Riata Trace Pkwy., 78727	PARD
Ricky Guerrero Neighborhood Park	2006 S 6th St., 78704	PARD
Harris Branch Neighborhood Park	11200 Farmhaven Rd., 78754	PARD
Georgian Pocket Park	8803 Georgian Dr., 78753	PARD
Lantana Neighborhood Park	7206 Rialto Blvd., 78735	PARD
Dry Creek Greenbelt	6100 Constellation Cir., Austn, 78617	PARD
Astor Place Greenbelt	1716 Astor Pl., 78721	PARD
Grey Rock Golf Course	7401 SH 45 EB, 78739	PARD
Chestnut Pocket Park	2207 E 16th St., 78702	PARD
Tannehill Branch Greenbelt	2403 E 51st St., 78723	PARD
Pan American Neighborhood Park	307 Chicon St., 78702	PARD
Earl J. Pomerleau Pocket Park	1906 Patton Ln., 78723	PARD
Govalle Neighborhood Park	5200 Bolm Rd., 78721	PARD
Bolm District Park	6700 Bolm Rd., 78725	PARD
Pastor Edward Clarence Craig Jr. Neighborhood Park	4800 Copperbend Blvd., 78744	PARD
Great Hills Neighborhood Park	10801 Sierra Oaks, 78759	PARD
Convict Hill Quarry Neighborhood Park	6511 Convict Hill Rd., 78749	PARD
Cook School Park	1505 Cripple Creek Dr., 78758	PARD
Ponciana Neighborhood Park	5201 Freidrich Ln., 78744	PARD
Lawrence Street Pocket Park	1805 Lawrence St., 78741	PARD
Cunningham School Park	6213 Buffalo Pass, 78745	PARD
Perry Neighborhood Park	4800 Fairview Dr., 78731	PARD
Memorial Park Cemetery	3000 Hancock Dr., 78731	PARD
Triangle Commons Neighborhood Park	722 W 46th St., 78751	PARD
Northern Walnut Creek Greenbelt	2611 Park Bend Rd., 78758	PARD
Alderbrook Pocket Park	12444 Lamplight Village Ave., 78758	PARD
Harpers Branch Creek Greenbelt	1405 Kenwood Ave., 78704	PARD
Adams-Hemphill Neighborhood Park	201 W 30th St., 78705	PARD
Ryan Planting Strip	6900 Ryan Dr., 78757	PARD
Armadillo Neighborhood Park	910 Armadillo Rd., 78745	PARD
Red Bud Isle	3401 Red Bud Trl., 78746	PARD

Meadowview Triangle	414 W Crestland Dr., 78752	PARD
Republic Square	422 Guadalupe St., 78701	PARD
Bailey Neighborhood Park	1101 W 33rd St., 78705	PARD
Scofield Farms Neighborhood Park	12901 Scofield Farms Dr., 78727	PARD
Seiders Springs at Shoal Creek Greenbelt	1380 W 34th St., 78731	PARD
Poquito Creek Greenbelt	1141 Poquito St., 78702	PARD
Grackle Green Button Park	2700 Drury Ln., 78722	PARD
Little Walnut Creek Greenbelt	6201 Springdale Rd., 78723	PARD
Harris Branch Greenbelt	Montgomery St., 78653	PARD
Fort Branch Creek Greenbelt	1143 Lott Ave., 78721	PARD
Red Bluff Neighborhood Park	5805 Harold Ct., 78721	PARD
Metcalfe Pocket Park	2648 Metcalfe Rd., 78741	PARD
Woodland Pocket Park	1810 Woodland Ave., 78741	PARD
Woodrow Pocket Park	5811 Woodrow Ave., 78756	PARD
Mustang Button Park	6001 Guadalupe St., 78752	PARD
Cooper Neighborhood Park	7410 Cooper Ln., 78745	PARD
Westenfield Neighborhood Park	2008 Enfield Rd., 78703	PARD
Carson Ridge Pocket Park	2405 Montopolis Dr., 78741	PARD
Yett Creek Neighborhood Park	12538 Riata Vista Cir., 78727	PARD
Clawson Neighborhood Park	3701 Clawson Rd., 78704	PARD
Pillow School Park	8500 Rockwood Ln., 78757	PARD
Pioneer Crossing Neighborhood Park	11544 Samsung Blvd., 78754	PARD
Plummers Cemetery	1150 Blk of Springdale Rd., 78721	PARD
Quail Creek Neighborhood Park	1101 Mearns Meadow Dr., 78758	PARD
Ramsey Neighborhood Park	4301 Rosedale Ave., 78756	PARD
Pease District Park	1100 Kingsbury St., 78703	PARD
Marble Creek Neighborhood Park	6704 Zequiell Dr., 78744	PARD
Reed Neighborhood Park	2614 Pecos St., 78703	PARD
Reilly School Park	6001 Guadalupe St., 78752	PARD
Rialto Neighborhood Park	7025 Rialto Blvd., 78735	PARD
Ridge Oak Triangle	4621 Lake Vw., 78731	PARD
Roberta Crenshaw Overlook at Shoal Beach at Town Lake Metro Park	201 W Cesar Chavez St., 78701	PARD
Rosewood Neighborhood Park	2300 Rosewood Ave., 78702	PARD

Roy G. Guerrero Colorado River Metro Park	400 Grove Blvd., 78741	PARD
Roy Kizer Golf Course	5400 Jimmy Clay Dr., 78744	PARD
Salt Springs Neighborhood Park	6401 E William Cannon Dr., 78744	PARD
Sanchez School Park	64 Waller St., 78702	PARD
Moccasin Neighborhood Park	6700 Halesboro Dr., 78736	PARD
Williamson Creek West Greenbelt at Lantana	7259 Rialto Blvd., 78735	PARD
Jamestown Neighborhood Park	8323 Jamestown Dr., 78758	PARD
Volma Overton, Sr. Shores at Town Lake Metro Park	1200 W Cesar Chavez St., 78703	PARD