STORM WATER MANAGEMENT PLAN (SWMP)

FOR

CITY OF MANOR, TEXAS



Developed to comply with the requirements of the Texas Pollutant Discharge Elimination System

General Permit No. TXR040000

Permit Term January 2019 to January 2024

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INTRODUCTION

Background

The U.S. Environmental Protection Agency (EPA) issued regulations in 1999 to provide for the protection of storm water runoff quality in small cities and urbanized areas. The State of Texas Commission on Environmental Quality (TCEQ) has developed a permitting program (Phase II Storm Water Program) to comply with the EPA Regulations for most cities, counties and public entities through the Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000. The initial permit was issued in 2007 and renewed on December 13, 2013. On January 16, 2019 the Commission adopted the 2019 TPDES general permit for small MS4s, TXR040000 with and effective date of January 24, 2019.

As the City of Manor is a small municipal separate storm sewer system (MS4) operator, classified as Level 2 in TXR040000, as determined by the U.S. Bureau of Census, currently permitted for the discharge of storm water runoff it must reapply under the updated TXR040000. This update of the Storm Water Management Program (SWMP) in response to the updated general permit is to be submitted with a Notice of Intent (NOI) to the TCEQ to acquire coverage under the general permit. The City of Manor will continue to operate under the conditions of the 2013 permit and SWMP until the updated SWMP is approved by TCEQ.

The plan elements include schedules and measurable goals for the five-year permit term to allow the plan to be phased in over the period. Progress will be reviewed by the City annually and modifications implemented as necessary. Annual updates to TCEQ are planned.

City of Manor

The City of Manor was founded in 1872. Manor is located along US Hwy. 290 at 30°20'35"N 97°33'24"W (30.343071, -97.556710), 12 miles (19 km) east of downtown Austin. The city limits encompass 9.76 Sq. miles (6,245 Ac.) and had a population of 5,869 in 2010. The City of Manor is a "Home-Rule" city which operates as Council-Manager form of government. Manor's governing body is made up of six Council Members and the Mayor, all of whom have an equal vote in making decisions for the City. The City has a City Manager. The City Council and the Planning and Zoning Commission regulate development within the City.

The topography is flat and included in the Blackland Prairie region of the State. Soils are predominately Houston Black Series of thick, expansive clays. While traditionally a farming community, strong urban growth in the Austin area has pushed suburban expansion into and around Manor and Freeway/Tollway projects have improved mobility into the central city and are expected to continue the urban growth cycle.

ALLOWABLE NON-STORMWATER DISCHARGES

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

- A. water line flushing;
- B. runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater or surface water sources;
- C. discharges from potable water sources;
- D. diverted stream flows;
- E. rising ground waters and springs;
- F. uncontaminated groundwater infiltration;
- G. uncontaminated pumped ground water;
- H. foundation and footing drains;
- I. air conditioner condensation;
- J. water from crawl space pumps;
- K. individual residential vehicle washing;
- L. flows from wetlands and riparian habitats;
- M. dechlorinated swimming pooldischarges;
- N. street wash water;
- 0. discharges or flows from emergency firefighting activities (firefighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities), and;
- P. other similar occasional incidental non-stormwater discharges, unless the TCEQ develops permits or regulations addressing these discharges.

SUMMARY OF THE STORM WATER MANAGEMENT PROGRAM (SWMP)

The Storm Water Management Program is a comprehensive program to manage the quality of discharges from the municipal separate storm sewer system (MS4). This SWMP, to the extent allowable under state and local law must be developed, implemented and enforced according to the requirements of the TCEQ General Permit No. TXR040000, effective January 24, 2019.

The Stormwater Management Plan (SWMP) developed by the City of Manor is described in the following sections. The following sections describe the six Minimum Control Measures (MCMs) and the best management practices (BMPs) employed by the City. An implementation schedule for each of the BMPs, the measurable goals and responsible parties associated with individual BMPs is included.

Prior to any major change, removal or replacement of a BMP identified within this SWMP, the City shall comply with the general permit requirement to submit a Notice of Change as specified in the general permit. Also, with the requirements of the General Permit. The City will submit an Annual Report to TCEQ which will track and record the implementation of the SWMP.

The SWMP for the City of Manor was developed by considering permit requirements, other City SWMPs, information from NCTCOG meetings and other resources.

Public Notice Requirements

The City under this general permit is required to publish, at least once, in a newspaper of general circulation in the municipality or county where the MS4 is located information pertaining to the SWMP and NOI after the applicant receives written instructions from the TCEQ's Office of Chief Clerk regarding the submitted NOI and SWMP. The published notice must include the executive director's preliminary decision on the NOI and SWMP and at a minimum the following items:

- 1. The legal name of the MS4 operator.
- 2. Indication of whether the NOI is for a new authorization or is a renewal of an existing authorization.
- 3. The address of the applicant for the MS4.
- 4. A brief summary of the information included in the NOI, such as the general location of the small MS4 and a description of the classified receiving waters that receive the discharges from the small MS4.
- 5. The location and mailing address where the public may provide comments to the TCEQ.
- 6. The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed.
- 7. If required by the executive director, the date, time, and location of the public meeting.

Minimum SWMP Requirements

At minimum the SWMP should contain the following:

- 1. A description of Minimum Control Measures (MCM) with measurable goals, including, as appropriate, the months and years when the City will undertake required actions, including interim milestones and the frequency of the action for each MCM.
- 2. The five MCM that pertain to the City of Manor are:
 - a. Public Education, Outreach and Involvement
 - b. Illicit Discharge Detection and Elimination
 - c. Construction Site Storm Water Runoff Control
 - d. Post-construction Storm Water Management in New Development and Redevelopment
 - e. Pollution Prevention and Good Housekeeping for Municipal Operations
- 3. A measurable goal that includes the development of ordinances or other regulatory mechanisms allowed by state, federal and local law, providing the legal authority necessary to implement and enforce the requirements of TPDES General Permit TXR040000, including information on any limitations to the legal authority.
- 4. The measurable goals selected by the City must be clear, specific, and measurable.
- 5. A summary of written procedures describing how the City will implement the provisions of the general permit.
- 6. A description of the program or plan of compliance with general permit requirements in Part II.D.4. (relating to Impaired Water Bodies and Total Maximum Daily Load (TDML) Requirements)
- 7. Identification of any impaired waters that have been added in accordance with general permit Part II.D.4.

Each of the MCMs have been evaluated and a list of Best Management Practices (BMPs) have been developed to address them. The BMPs have been chosen based on the requirements of the General Permit and ongoing BMPs from the City's 2013 SWMP. Each of the BMPs includes measurable goals, a schedule for implementation and a summary of procedures. The measurable goals and schedule have been developed to quantify and create a time table for accomplishing each of the BMPs. A detailed implementation schedule and tracking can be found in APPENDIX A.

Record keeping is a required element of the SWMP. The City of Manor must retain all records, a copy of the General Permit, and records of all data used to complete the Notice of Intent (NOI) for this permit for the term of the permit, currently five (5) years. A copy of this SWMP and NOI

must be retained at a location accessible to the TCEQ and the public. The City of Manor will retain copies at City Hall located at 105 East Eggleston, Manor TX 78653.

The City of Manor is required to submit an annual report to the Executive Director by March 31 (of the following year) for each year of the permit term. A copy of the annual report must be readily available for review by the TCEQ. The annual report shall contain an assessment of the BMPs, report on progress of implementing the BMPs, proposed changes, an evaluation of the success of the SWMP and any new approved WPAPs.

Gilleland Creek TDML Plan (I-Plan)

Storm water runoff through storm drains, roadside ditches, creeks and streams are typically separate from organized sewerage systems in Texas and carry flows directly to the downstream receiving bodies of water. In the Manor area, Gilleland Creek to the west and Wilbarger Creek to the east provide the primary drainage to the south where they join the Colorado River between Austin and Bastrop. Any pollutants such as oil, grease, roadway and parking lot debris, detergents, and bacteria are carried with storm flows to the downstream waterways. These "non-point source" pollutants have become a serious reservoir of pollutant loadings, supplementing the traditional "point sources" like sewage treatment plants and industrial operations that are now regulated individually by the State as the major source of water quality problems and impacting the quality of life for all citizens. TCEQ monitors water quality throughout the State and determines those areas where quality is acceptable and implementing plans to clean up impaired water bodies. The MS4 permit program is designed to prevent many of the inherent problems in urbanizing areas before degradation occurs and more costly remediation programs are necessary.

There is an ongoing concern over the levels of bacteria in Gilleland Creek (west of Manor) due to a previous history of unacceptable levels and a Total Maximum Daily Load Plan (TDML) was adopted in 2011. The City of Manor was not included in the original plan, but was involved with the revision of the implementation plan which was submitted to TCEQ in November 2017. A copy of the implementation plan is included in Appendix A.

Management Measures of the revised TDML Plan are:

<u>Management Measure 1</u> in the Plan addresses OSSF issues and almost all of the OSSF areas in the Manor region are outside of the City Limits (the MS4 permit area) and subject to the inspection and remediation measures being undertaken under the plan by Travis County – the OSSF permitting authority for systems outside the City limits. Through an interlocal agreement, Travis County has jurisdictional authority of OSSFs located within the Manor City Limits.

<u>Management Measure 2</u> focuses on Riparian Setback Zones along creeks. Existing City Ordinances are based largely on the City of Austin and Travis County regulations and provide a comparable level of protection (also measure 5 in TDML). <u>Management Measure 3</u> investigated the retrofitting of Detention Ponds (currently required by City Ordinances) as batch treatment devices for bacteria reduction. The results appear ineffective and no retrofit program has been implemented under the TDML plan.

<u>Management Measure 4</u> is primarily a Public Education measure to emphasize the impact of pet waste management and has been included as a component BMP of the City's SWMP.

<u>Management Measure 5</u> addresses Water Quality through equivalent ordinances by political jurisdictions. Most of the City of Manor's Subdivision ordinances are adapted, based on or closely follow the City of Austin and Travis County regulations.

<u>Management Measure 6</u> requires the inspection of wastewater collection system lines within 100 feet of Gilleland Creek and its tributaries. The City has an active, ongoing leak detection program (to eliminate excess infiltration into the system) and the same type of inspections would reveal exfiltration problems (none have been a significant problem historically for the City) with the collection lines.

There are no documented concerns about water quality in the Wilbarger Creek Basin (east portion of Manor) and no TDML or special testing requirements are in place for the Basin.

Pollutant of Concern

The pollutant of concern for Gilleland Creek TMDL is bacteria. The permit requires BMPs throughout the SWMP to address areas relating to specific TMDL measures.

Targeted Controls

The City's BMPs have addressed the following requirements in relation to the Gilleland Creek I-Plan and the MS4 General Permit:

- a. Sanitary Sewer Systems (MCM #5, BMP 12)
 - Make improvements to sanitary sewers to reduce overflows;
 - Address lift station inadequacies;
 - Inspection of City Facilities
- b. On-site Sewage Facilities(OSSFs) (MCM #2, BMP 8)
 - Work with Travis County to identify and address failing OSSF systems;
 - Work with Travis County to address inadequate methods of OSSFs
- c. Illicit Discharges and Dumping (MCM #2, BMPS 1-8)
 - Place additional effort to reduce waste sources of bacteria
 - Conduct preliminary & follow up inspections of illicit discharges to identify areas of possible increased focus efforts.

d. Animal Sources (MCM #5, BMP5)

- Expand existing management programs to identify and target animal sources such as pet waste.
- •The City will work to implement pet waste stations. throughout City parks.

e. Residential Education (*MCM #1, BMP6*)

Assessment of Progress

Multiple entities monitor Gilleland Creek water quality at different sites, using different analytical methods and at different sample frequencies. Some monitoring is done under the Texas Clean Rivers Program (https://www.tceq.texas.gov/waterquality/clean-rivers), and thus generates *E. coli* data of consistent quality utilized in water quality assessments by TCEQ. Other entities sample water quality for different objectives and with different levels of quality control, and generate data that is not assessed by TCEQ.

The City will assess improvements to water quality by using available data for segments and assessment units of water bodies from other reliable sources. The current data is available from the Lower Colorado River Authority (LCRA), therefore, the City will monitor data according to the scheduled input period set forth by the LCRA monitoring station. Progress will be reported in the annual report. The City is participating in an I-plan that uses an aggregate waste load allocation for MS4 stormwater sources.

Benchmark: To try to reach Bacteria levels that are safe for contact recreation per the I-Plan. The WLARegulatedStormWater = 1.51×10^{13} cfu/day.

Endangered Species in the MS4 Area

Storm water runoff through storm drains, roadside ditches, creeks and streams from Manor flows to bodies of what that indirectly drain into the Colorado River Basin. The City of Manor acknowledges that the following endangered or threatened aquatic or aquatic dependent species have been identified in the City MS4's receiving waterbodies:

Tooth Cave Spider – *Texamaurops reddelli* Texas snowbells – *Styrax texana* Kretschmarr Cave mold beetle – *Neoleptoneta myopica* Tooth Cave ground beetle – *Rhadine persephone* Bee Creek Cave harvestman – *Texella reddelli* Bone Cave harvestman – *Texella reyesi* Tooth Cave Psuedoscorpion – *Tartarocreagris texana* Houston toad – *Bufo houstonensis*

MINIMUM CONTROL METHODS (MCMs)

The EPA has established the National Pollutant Discharge Elimination System (NPDES) program under the authority granted by the Clean Water Act and subsequently delegated permit authority to the TCEQ for both "point and non-point" sources of pollution. TCEQ has developed the MS4 general permits to protect storm water quality in populated areas such as the City of Manor with specific requirements based on classifications for various population categories. The City is classified as a "Small MS4, Level 2" – population more than 10,000 but less than 40,000 within an Urbanized Area.

The SWMP is required to contain these six elements at a minimum:

1. Public Education and Outreach: distributing educational materials and performing outreach to inform citizens about the impacts polluted runoff discharges can have on water quality.

2. Public participation/involvement: providing opportunities for citizens to participate in development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a storm water management panel.

3. Illicit Discharge Detection and Elimination: Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system (includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

4. Construction Site Runoff Control: Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land (controls could include silt fences and temporary storm water detention ponds).

5. Post Construction Runoff Control: Developing, implementing, and enforcing a program to address discharges of post construction runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas like wetlands or the use of structural controls such as grassed swales or porous pavement.

6. Pollution Prevention/Good Housekeeping: Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and activities to reduce the amount of pollutants in storm water such as regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch basin cleaning.

Permit implementation summary and tracking can be found in APPENDIX A.

THE DEADLINE FOR MEETING MINIMUM CONTROL METHODS WILL BE NOVEMBER EACH PERMIT YEAR.

MINIMUM CONTROL METHOD #1

PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT

MINIMUM CONTROL METHOD 1 – Public Education, Outreach and Involvement

Summary of TXR04000 Part III (B) (1) (a) – The MS4 operator must develop, implement and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that storm water discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in storm water.

Existing Cities shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP). New elements must be fully implemented by the end of this permit term and\ newly regulated Cities shall have the program fully implemented by the end of this permit terms. The program must, at a minimum:

- Define the goals and objectives of the program based on high priority community-wide issues (for example, reduction of nitrogen in discharges from the small MS4, promoting previous techniques used in the small MS4, or improving the quality of discharges to the Edwards Aquifer);
- Identify the target audience(s);
- Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;
- Determine cost effective and practical methods and procedures for distribution of materials.

Summary of TXR04000 Part III (B) (1) (b) – The MS4 operator shall involve the public, and, at a minimum, comply with any state and local public notice requirements in the planning and implementation activities related to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

All Cities shall involve the public, and, at minimum, comply with any state and local public notice requirements in the planning and implementation activities related to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

Existing Cities shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated Cities shall have the program fully implemented by the end of this permit term. At a minimum, all Cities shall:

- Consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;
- Create opportunities for citizens to participate in the implementation of control measures, such as stream clean-ups, storm drain stenciling, volunteer monitoring, volunteer "Adopt-A-Highway" programs, and educational activities;
- Ensure the public can easily find information about the SWMP.

SELECTED BMPS FOR PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT

BMP NO. 1 – EDUCATIONAL MAILERS

Description: Stormwater pollution prevention flyers shall be mailed out to City Residents and businesses annually. Copies of the flyers will be provided as utility bills inserts. The mailers will contain contact information for questions and comments. Mailers will be changed on a regular basis to highlight a different area of stormwater pollution prevention. This program is fully implemented and is an ongoing process. Copies of the flyers shall also be available at City Hall.

Measurable Goals: Insert flyers as described in the implementation schedule in utility billing.

Responsible Parties: City Secretary, Assistant Development Director

Implementation Schedule: One new flier per year shall be sent out in City of Manor utility bills:

- Year 1 The City of Manor shall mail out Stormwater Management flyer to 100% of residents.
- Year 2 The City of Manor shall mail out Cleaner Curbs and Cleaner Creeks flyer to 100% of residents.
- Year 3 The City of Manor shall mail out Put Waste in Its Place flyer to 100% of residents.
- Year 4 The City of Manor shall mail out Only Rain Down the Storm Drain flyer for 100% of residents.
- Year 5 The City of Manor shall mail out Saving Water Saves Money Flyer to 100% of residents.

BMP NO. 2 - STORMWATER INFORMATION ON CITY WEBSITE

Description: The City of Manor shall add a dedicated section to the City Website that shall provide a Stormwater pollution <u>"Tip of the Month</u>". This information shall be updated monthly and shall provide an email address for those who want to request further information. The website shall also include information and tips for stormwater.

Measurable Goals: The City of Manor shall post the "Stormwater tip of the month" twelve times per year on the City website by the third year of the permit.

Responsible Parties: City Assistant Development Director

Implementation Schedule:

Year 1 – The City of Manor shall create an email address for questions for Tip of the Month.

Year 2 – The City of Manor shall update the City website for the tip of the month.

Year 3 – The City of Manor shall begin adding a tip of the month each month.

Year 4 – The City of Manor shall continue to add a tip of the month each month.

Year 5 – The City of Manor shall continue to add a tip of the month each month.

BMP NO. 3 – CREATE AFTER THE STORM PAMPHLETS

Description: The City shall distribute pamphlets detailing the impacts polluted stormwater run-off can have on water quality, hazards associated with illegal discharges and improper disposal of waste and methods to minimize their impact on storm water quality. As part of this BMP the City shall create a stormwater pamphlet. The City shall distribute the information to public locations accessible to all constituents, visitors, businesses and personnel within the City.

Measurable Goals: The measurable goals for implementation of this BMP is to research existing and new information and update create a pamphlet, produce the pamphlet, mail to customers every 3 years and distribute them to public places, construction sites, etc.

Responsible Parties: City Engineer and City Staff

Implementation Schedule:

- Year 1 The City of Manor shall research and develop the stormwater pamphlet.
- Year 2 The City of Manor shall place 500 copies of the created stormwater pamphlet at City Hall for public distribution.
- Year 3 The City of Manor shall place 500 copies of the created stormwater pamphlet at City Hall for public distribution.
- Year 4 The City of Manor shall review the existing pamphlet, research new information and ideas and finalize updated pamphlet content. 500 copies of the updated pamphlet shall be placed at City Hall by the City.
- Year 5 The City of Manor shall place 500 copies of the created stormwater pamphlet at City Hall for public distribution.

BMP NO. 4 – STORM DRAIN MEDALLIONS

Description: The City shall develop a new storm drain medallion, install the medallion on existing inlets throughout the City and require the medallion be installed on new inlets on both developer and City projects.

Measurable Goals/Evaluation: The measurable goal for implementation of this BMP shall be reaching the ultimate goal of all existing and new inlets within the City shall have the storm drain medallion.

Responsible Parties: City Engineer and City Staff

Implementation Schedule:

Year 1 – The City of Manor shall complete inventory of existing storm inlets. The City of Manor shall create a new medallion detail that shall be required on all City and private developer projects starting at the time the detail is released.

Year 2 – The City shall place medallions on 25% of the existing inlets.

Year 3 – The City shall place medallions on 25% of the existing inlets.

Year 4 – The City shall place medallions on 25% of the existing inlets.

Year 5 – The City shall place medallions on 25% of the existing inlets.

BMP NO. 5 – ADDING SWMP PLAN AND ANNUAL REPORTS TO WEBSITE

Description: The City shall post its SWMP and annual reports on its website.

Measurable Goals/Evaluation: The measurable goal for implementation of this BMP shall be the City updating the stormwater portion of their website with the SWMP as well as annual reports.

Responsible Parties: City Engineer and Assistant Development Director

Implementation Schedule:

Year 1 – The City of Manor shall add a link to their SWMP to its website.

Year 2 – The City shall place a link for the annual report on its website.

Year 3 – The City shall place a link for the annual report on its website.

Year 4 – The City shall place a link for the annual report on its website.

Year 5 – The City shall place a link for the annual report on its website.

BMP NO. 6 – CREATE RESIDENTIAL EDUCATION PAMPHLETS

Description: The City shall distribute pamphlets focusing on reducing the amount of bacteria being discharged into the MS4. As part of this BMP the City shall create a several pamphlets and shall distribute the information to public locations accessible to all constituents, visitors, businesses and personnel within the City.

Measurable Goals: The measurable goals for implementation of this BMP is to provide new pamphlets annually and distribute them to public places. Copies of the pamphlets will also be available online.

Responsible Parties: City Engineer and City Staff

Implementation Schedule:

- Year 1 The City of Manor shall create pamphlets to educate residents on bacteria discharging from residential sites during runoff events; on fats, oils and grease clogging sanitary sewer lines resulting in overflows; on maintenance and operations of decorative ponds; and on proper disposal of pet waste.
- Year 2 The City of Manor shall place 200 copies of the created discharge pamphlet at City Hall for public distribution.
- Year 3 The City of Manor shall place 200 copies of the created fats, oils and grease pamphlet at City Hall for public distribution.
- Year 4 The City of Manor shall place 200 copies of the maintenance and operation of decorative Ponds at City Hall for public distribution.
- Year 5 The City of Manor shall place 200 copies of the proper disposal of pet waste pamphlet at City Hall for public distribution.

MINIMUM CONTROL METHOD #2

ILLICIT DISCHARGE DETECTION AND ELIMINATION

MINIMUM CONTROL METHOD NO. 2 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

Summary of TXR040000 Part III (B) (2) – A program must be developed to detect, investigate, and eliminate illicit discharges into the MS4. The program must include a plan to detect and address non-storm water discharges, including illegal dumping to the MS4 system.

Non-storm water flows (as listed in Part II.C) do not need to be considered by the MS4 operator as an illicit discharge requiring elimination unless the operator or the TCEQ identifies the flow as a significant source of pollutants to the small MS4.

The minimum requirements for the SWMP include:

- MS4 mapping
- Education and Training
- Public Reporting of Illicit Discharges and Spills
- Developing and maintaining on site procedures for responding to illicit discharges and spills.
- Source Investigation and Elimination.
- Inspections

SELECTED BMPS FOR ILLICIT DISCHARGE AND ELMINATION

BMP NO. 1 – MAINTAIN A STORM SEWER SYSTEM MAP

Description: The City has previously mapped their entire storm sewer system as part of their previous SWMP. This BMP focuses on the City updating and maintaining their storm sewer system map. The map shows the location of all storm sewer inlets and outfalls within the City and the locations of all receiving water bodies/creeks that receive discharges from the outfalls. The map will be updated to include names of the receiving water bodies/creeks and it will be updated once a year at a minimum with system expansions with new developments.

Measurable Goals – The measurable goal for implementation of this BMP is the City will update the existing storm sewer system map to include names of receiving water bodies and will continue to update the map on a yearly basis.

Responsible Parties: City Engineer

Implementation Schedule:

Year 1 – Names of receiving water bodies/creeks will be added and the map will be expanded as needed to show the receiving water bodies/creeks. The existing storm sewer map will be updated with new developments and any changes.

Year 2 – The map will be updated with new developments and any changes.

Year 3 – The map will be updated with new developments and any changes.

Year 4 – The map will be updated with new developments and any changes.

Year 5 – The map will be updated with new developments and any changes.

BMP NO. 2 – EDUCATION AND TRAINING OF CITY STAFF

Description: The City began a training program for City Staff as part of the previous permit. The City currently trains and educates its field staff in regards to dealing with illicit discharges or illicit connections to the MS4 system. This BMP requires the City to continue training City staff, maintain training documents and attendance lists and to make the training program materials and attendance lists available for review by the TCEQ.

Measurable Goals – The measurable goal for implementation of this BMP is to continue to train 100% of field staff during the permit period and to maintain training documents and attendance lists.

Responsible Parties: City Staff, City Engineer

Implementation Schedule:

Year 1 – Training will be provided to new and existing staff on illicit discharges and illicit connections and a file of training material and attendance lists will be kept.

Year 2 – Training will be provided to new and existing staff on illicit discharges and illicit connections and a file of training material and attendance lists will be kept.

Year 3 – Training will be provided to new and existing staff on illicit discharges and illicit connections and a file of training material and attendance lists will be kept.

Year 4 – Training will be provided to new and existing staff on illicit discharges and illicit connections and a file of training material and attendance lists will be kept.

Year 5 – Training will be provided to new and existing staff on illicit discharges and illicit connections and a file of training material and attendance lists will be kept.

<u>BMP NO. 3 – PROCEDURES FOR RESPONDING TO ILLICIT DISCHARGES AND</u> <u>SPILLS</u>

Description: The City will develop a program to detect and address non-storm water discharges, including illegal dumping into the MS4 system. This BMP will develop a standard procedure for responding to illicit discharges and spills and having those procedures available to staff at all City facilities.

Measurable Goals: The measurable goals for implementation of this BMP is to develop a standard procedure for responding to illicit discharges and spills and provide a copy at all City facilities during the permit period.

Responsible Parties: Public Works Director and City Staff (possibly City Engineer)

Implementation Schedule:

Year 1 – The City will develop a standard written procedure for responding to illicit discharges and spills.

Year 2 – The City will place written procedures in all City facilities. 100% of the procedures for illicit discharges and spills will be fully implemented.

Year 3 – The program will be reviewed to see if it is working and will be updated if needed.

Year 4 – The program will be updated (if needed) and new copies will be provided to City facilities.

Year 5 – The program will be continued/modified as needed.

<u>BMP NO. 4 – ILLICIT DISCHARGE DECTECTION AND ELMINATION</u> <u>ORDINANCE REQUIREMENTS</u>

Description: The City Engineer and City Attorney will study similar ordinances in the area and develop recommendations for an Illicit Discharge Detection and Elimination Ordinance.

Measurable Goals: The measurable goal for implementation of this BMP is to evaluate and develop an ordinance and have the ordinance adopted by year 3 of the permit period.

Responsible Parties: City Engineer and City Attorney

Implementation Schedule:

Year 1 – City Engineer and City Attorney will review similar ordinances and develop recommendations for an ordinance for the City.

Year 2 – The City Engineer and City Attorney will prepare a draft ordinance for City Official review.

Year 3 – The City will approve new Illicit Discharge ordinance and begin enforcement.

Year 4 – The Ordinance will be reviewed and modifications will be made as needed.

Year 5 – The Ordinance will be reviewed and modifications will be made as needed.

<u>BMP NO. 5 – SOURCE INVESTIGATION, ELMINATION AND INSPECTIONS OF</u> <u>ILLICT DISCHARGES</u>

Description: The City will develop a program that includes investigating and eliminating illicit discharges and inspections in response to complaints and follow-up inspections to ensure compliance with the City's ordinances. This BMP requires the City to conduct an investigation to identify and locate the source of illicit discharges as soon as practicable, notify TCEQ, require the responsible party to perform necessary corrective actions to eliminate the illicit discharge and document and track the process. The City shall report to TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment This BMP also requires the City to conduct investigations in response to complaints and follow-up inspections to ensure corrective actions have been implemented by the responsible party.

Measurable Goals: The measurable goal for implementation of this BMP is developing a program that includes investigating, eliminating and inspecting illicit discharges in the City MS4. **Responsible Parties:** Public Works Director, City Engineer and City Staff

Implementation Schedule:

Year 1 – The City will develop draft procedures for investigating, eliminating and inspecting illicit discharges.

Year 2 – The City will complete a written procedure for investigating, eliminating and inspecting illicit discharges.

Year 3 – The City will train field staff on the new procedures and begin investigating, eliminating and inspecting for illicit discharges. The City will begin implementation of 100% of the procedures for illicit discharges. 100% of the complaints received will be investigated and inspected.

Year 4 – The program will continue to be 100% fully operational. 100% of the complaints received will be investigated and inspected.

Year 5 – The program will continue to be 100% operational and 100% of complaints will received will be investigated and reported. The program will be reviewed and modifications will be made as needed.

BMP NO. 6 – CREATE A HOTLINE FOR REPORTING ILLICIT DISCHARGES

Description: The City will create a hotline and email address for reporting illicit discharges. The information shall be added to the City website for easy access.

Measurable Goals – The measurable goal for implementation of this BMP is for the City to have a way for residents to report illicit discharges. The City will respond to at least 50% of public reports. 100% of the calls/emails will be reviewed.

Responsible Parties: City Staff, City Engineer, Assistant Development Director

Implementation Schedule:

Year 1 – The City will create a hotline and email address for illicit discharge reporting and assign City Staff to review reports.

Year 2 – The hotline number and email will be added to the City website.

Year 3 – The City will review of 100% of all reports and respond to at least 50%.

Year 4 – The City will review of 100% of all reports and respond to at least 50%.

Year 5 – The City will review of 100% of all reports and respond to at least 50%. The City will review the program and make any necessary changes.

BMP NO. 7 – ANNUAL CHECK OF IMPAIRED WATER BODIES LIST

Description: The City will annually check to see if any water bodies located within the City's MS4 permit area have been added to the impaired water body list.

Measurable Goals – The measurable goal for implementation of this BMP is for the City to check annually to see if any water bodies located within the City's MS4 have been added to the impaired water body list.

Responsible Parties: City Staff, City Engineer

Implementation Schedule:

Year 1 – The City will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list.

Year 2 – The City will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list.

Year 3 – The City will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list.

Year 4 – The City will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list.

Year 5 – The City will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list.

<u>BMP NO. 8 – PROCEDURES TO PREVENT AND CORRECT LEAKING ON-SITE</u> <u>SEWAGE DISPOSAL SYSTEMS</u>

Description: Travis County will be in charge of preventing and correcting leaking on-site sewage disposal systems within the City Limits of Manor through an interlocal agreement.

Measurable Goals – Develop procedures on how City Staff will notify the County of leaking on-site sewage disposal systems and develop a plan of action for the City when illicit discharges are discovered.

Responsible Parties: City Staff, Public Works Director, City Engineer

Implementation Schedule:

Year 1 – The City will create written procedures for investigating and reporting on-site septic system leakages to Travis County. The City will create reporting procedures for City Staff to notify Travis County of on-site septic leakage issues to Travis County.

Year 2 – The City will investigate 50% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well.

Year 3 – The City will investigate 75% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well.

Year 4 – The City will investigate 100% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well.

Year 5 – The City will review of 100% of all reported on-site septic system leakages. City Staff will report any issues to Travis County that they encounter as well. The City will review the program and make any necessary changes.

MINIMUM CONTROL METHOD #3

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

MINIMUM CONTROL METHOD NO. 3 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Summary of TXR040000 Part III (B) (3) – The MS4 operator must develop, implement, and enforce a program requiring operators of small and large construction activities, as defined in Part I of this general permit, to select, install, implement, and maintain storm water control measures that prevent illicit discharges. The program must include an ordinance or other regulatory mechanism, as well as sanctions to ensure compliance to the extent allowable under state, federal and local law, to require erosion and sediment control.

The minimum requirements for the SWMP include:

- Require that construction site operators implement appropriate erosion and sediment control BMPs
- Prohibit Discharges
- Construction Plan Review Procedures
- Construction Site Inspections and Enforcement
- Management of Information Submitted by the Public
- MS4 Staff Training

Currently, the City has existing processes, procedures and ordinances regarding construction site stormwater runoff control. The City conducts construction plan reviews for compliance with stormwater controls, has staff performing inspections and has ordinances requiring erosion and sedimentation controls during construction activities. These ordinances require erosion and sedimentation controls for all construction activities. Sanctions for not designing or constructing the erosion and sedimentation control include rejection of plans, plats, and permits as well as stop work orders. These ordinances are included in Appendix B of this SWMP. A list of the existing ordinances is included below:

- Section 23 of Subdivision Ordinance Construction Plans
- Section 41 of Subdivision Ordinance Drainage Improvements
- In November 2017 the City passed an Erosion and Sedimentation Control ordinance.

SELECTED BMPS FOR CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

BMP NO. 1 – CONSTRUCTION SITE INSPECTIONS

Description: The City currently inspects active construction sites for compliance with the approved plans for stormwater controls. City Staff also attends preconstruction conferences and post construction walk throughs. As part of this BMP the City will continue to inspect sites with the goal to inspection 100% of active construction sites.

Measurable Goals: The measurable goal for implementation of this BMP is for City Staff to participate in 100% of preconstruction and post construction meetings and to inspect 100% of active construction sites within the MS4.

Responsible Parties: City Staff, City Engineer

Implementation Schedule:

Year 1 – The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings.

Year 2 – The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings.

Year 3 – The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings.

Year 4 – The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings.

Year 5 – The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings.

BMP NO. 2 – ESTABLISH MS4 TRAINING TRACKING SYSTEM FOR CITY STAFF

Description: The City of Manor will develop a log book system to ensure that all staff whose primary job duties are related to implementing the construction storm water program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to conduct these activities.

Measurable Goals: The measurable goal for implementation of this BMP is to develop a log book system to ensure all staff implementing the construction storm water program has had sufficient experience or training in the permit year. The goal is to have the log book system developed in year 3 and updated annually.

Responsible Parties: City Staff, City Engineer, City Building Inspector

Implementation Schedule:

Year 1 – The City will begin process of developing training log book system.

Year 2 – The City will continue developing training log book system.

Year 3 – The City will track annual training and record data.

Year 4 – The City will track annual training and record data.

Year 5 – The City will rack annual training and record data.

<u>BMP NO. 3 – ESTABLISH WRITTEN PROCEDURES FOR CONSTRUCTION PLAN</u> <u>REVIEW, SITE INSPECTION AND ENFORCEMENT</u>

Description: The City of Manor will develop formal written procedures regarding construction plan reviews, Storm Water Pollution Protection Plan (SWPPP) reviews, site inspections and enforcement of existing ordinances. The City will develop internal procedures on who, what, when and how construction plan and SWPPP reviews shall be conducted, site inspections performed and enforcement actions taken.

Measurable Goals: The measurable goal for implementation of this BMP is to develop written procedures for construction plan reviews, SWPPP reviews, site inspections and enforcement actions. 100% of construction sites located within the City Limits of Manor that are regulated under the TXR150000 Construction General Permit will be required to submit a SWPPP for review and will be inspected by City Staff.

Responsible Parties: City Staff, City Engineer, City Building Inspector

Implementation Schedule:

Year 1 – City Staff and City Engineer will prepare draft procedures.

Year 2 – The City will implement new procedures.

Year 3 – The City will review existing procedures and make modifications as needed.

Year 4 – The City will continue to follow written procedures.

Year 5 – The City will continue to follow written procedures.

<u>BMP NO. 4 – ESTABLISH AN EROSION CONTROL FIELD GUIDE FOR</u> <u>CONTRACTORS</u>

Description: The City of Manor will develop a field guide to be used by contractors performing work within the City's MS4.

Measurable Goals: The measurable goal for implementation of this BMP is to develop a field guide to be used by contractors for projects located within the City's MS4. Once complete the field guide will be handed out at all preconstruction conferences and at all job sites within the City's MS4.

<u>BMP NO. 4 – ESTABLISH AN EROSION CONTROL FIELD GUIDE FOR</u> <u>CONTRACTORS CONTINUED</u>

Responsible Parties: City Staff, City Engineer, City Building Inspector **Implementation Schedule:**

Year 1 – City Staff and City Engineer will prepare draft field guide.

Year 2 – The City will finalize field guide.

Year 3 – The City will begin issuing field guide at preconstruction conferences and at all jobsites.

Year 4 – The City will continue to issue the field guide at preconstruction conferences and at all jobsites.

Year 5 – The City will continue to issue the field guide at preconstruction conferences and at all jobsites.

<u>BMP NO. 5 – ESTABLISH WRITTEN PROCEDURES FOR EROSION CONTROL ON</u> INDIVIDUAL LOTS (NEW HOME SITES BY HOMEBUILDERS)

Description: The City of Manor will develop formal written procedures regarding installation of erosion controls on individual lots by homebuilders. Modifications will be made to existing ordinances if required.

Measurable Goals: The measurable goal for implementation of this BMP is to develop written procedures for erosion control on individual lots (homebuilders)

Responsible Parties: City Staff, City Engineer, City Building Inspector, City Attorney, City Council

Implementation Schedule:

Year 1 – City Staff, City Attorney and City Engineer will review existing ordinances and create drafts to update existing or create new ordinances as needed.

Year 2 – The City Engineer and City Attorney will prepare a draft ordinance for City Official review.

Year 3 – The City will adopt new ordinances or updates to existing ordinances and begin implementation of written procedures for erosion controls.

Year 4 – The Ordinance(s) will be reviewed and modifications will be made as needed. Enforcement will continue. The City will continue implementation of written procedures for erosion controls.

Year 5 – The Ordinance(s) will be reviewed and modifications will be made as needed. Enforcement will continue. The City will continue implementation of written procedures for erosion controls.

<u>BMP NO. 6 – ESTABLISH WASTE MANAGEMENT GUIDE FOR CONSTRUCTION</u> <u>SITES</u>

Description: The City of Manor will develop a waste management guide for construction sites.

Measurable Goals: The measurable goal for implementation of this BMP is to develop a waste management guide for construction sites within the City's MS4.

Responsible Parties: City Staff, City Engineer

Implementation Schedule:

Year 1 – The City will review similar type guides and prepare a draft guide.

Year 2 – The management guide will be finalized.

Year 3 – The City will begin to distribute the waste management guide at preconstruction conferences and at all job sites within the City's MS4.

Year 4 – The City will continue to distribute waste management guide at preconstruction conferences and at all job sites within the City's MS4.

Year 5 – The City will continue to distribute waste management guide at preconstruction conferences and at all job sites within the City's MS4.

MINIMUM CONTROL METHOD #4

POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

MINIMUM CONTROL METHOD NO. 4 – POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Summary of TXR040000 Part III (B) (4) – The MS4 operator must develop, implement and enforce a program to address storm water discharges from new development and redevelopment projects that disturb 1 acre or more. The program must ensure that controls are in place that would prevent or minimize water quality impacts. For the purpose of this permit "redevelopment" does not include routine maintenance activities and linear utility construction.

The MS4 operator is required to have developers and property owners maintain storm water control measures that are appropriate for the community and to maintain all long-term post-construction storm water control measures. The MS4 operator is required to inspect post-construction controls to ensure they are operating correctly.

The minimum requirements for the SWMP include:

- Development, implementation and enforcement of a post-construction storm water management plan.
- Develop a document retention program for post-construction storm water enforcement actions taken against non-compliant owners.
- Develop a program for maintenance and inspection of long-term post-construction storm water control measures.

<u>BMP NO. 1 –</u> Review and Update Ordinances Associated with Post-Construction Storm Water Runoff Control, to Include Requirements for Property Owners of New Developments and Redevelopments of One Acre or More That Contain Storm Water Structural Controls Perform Operation and Maintenance of BMP's on The Structural Controls.

Description: The City will review existing City Ordinances regarding post-construction site stormwater runoff and modify them to include a system for addressing maintenance of stormwater BMPs on private property.

Measurable Goals: The measurable goal for implementation of this BMP is to add language to the City ordinance requiring the property owner of a development or redevelopment site one acre or larger that installs structural storm water controls to implement a maintenance plan, file the plan in the real property records of the county in which the property is located, perform maintenance per the plan and keep records of the plan and maintenance on site for review by the City if requested. As part of this measurable goal the City will evaluate and develop modifications to the existing ordinances, as necessary, and have them implemented by year 5 of the permit period.

Responsible Parties: City Building Inspector, City Code Enforcement Officer, City Staff, City Engineer, City Attorney, City Council

Implementation Schedule:

Year 1 – The City will review similar ordinances in place in other cities.

Year 2 – The City will prepare draft modifications to existing ordinance.

Year 3 – The City will evaluate and develop modifications to existing ordinances for requirements for private property owners developing or redeveloping one-acre or more to perform maintenance on storm control structures.

Year 4 – The City will finalize program modifications.

Year 5 – The City will implement program modifications.

<u>BMP NO. 2 -</u> Develop Document Retention Program for Documents Related to Enforcement Actions for Non-Compliant Post-Construction Storm Water Control Measures.

Description: The City will review existing procedures for documenting and maintaining records associated with enforcement of non-compliant post-construction storm water control measures and update as necessary.

Responsible Parties: Public Works Director, Code Enforcement Officer

Measurable Goals: The measurable goal for implementation of this BMP is to evaluate and develop document retention procedures and have them implemented by year 5 of the permit period.

Implementation Schedule:

Year 1 – The City will evaluate existing process for document retention used by other municipalities.

Year 2 – The City will develop updated draft process for document retention.

Year 3 – The City will implement program for document retention.

Year 4 – The City will continue document retention.

Year 5 – The City will continue document retention.

<u>BMP NO. 3 -</u> INVENTORY, INSPECTION AND MAINTENANCE OF STRUCTURAL RUNOFF CONTROLS

Description: The City will develop an inventory of 100% of structural runoff controls located within its MS4. Once the inventory is complete, the City shall inspect and maintain 100% City owned runoff controls on a semi-annual basis. The City shall create a database to track inspections and maintenance.

Responsible Parties: Public Works Director, City Staff, City Engineer

Measurable Goals: The measurable goals for this BMP are developing the inventory of 100% of runoff controls and who owns the controls in the first year. From the second year on, the runoff controls will be inspected twice a year and the City will maintain 100% of City owned runoff controls. The City will document inspections and maintenance.

Implementation Schedule:

Year 1 – The City will develop an inventory of runoff controls along with a database to track inspections and maintenance.

Year 2 – The City will begin semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance.

Year 3 – The City will continue semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance.

Year 4 – The City will continue semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance.

Year 5 – The City will continue semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance.

MINIMUM CONTROL METHOD #5

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

MINIMUM CONTROL METHOD NO. 5 – POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Summary of TXR040000 Part III (B) (5) – MS4 operators must develop and implement an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal activates and municipally owned areas, including but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; storm water system maintenance; new construction and land disturbances; municipal parking lots; vehicle and equipment maintenance and stage yards; waste transfer stations; and salt/sand storage locations.

The minimum requirements for the SWMP include:

- Develop and maintain an inventory of facilities and storm water controls owned and operated by the MS4 operator.
- Train and educate employees involved in implementing pollution prevention and good housekeeping practices.
- Requirements for disposal of waste material.
- Develop a policy for contractor requirements and oversight.
- Develop a program for assessing municipal operation and maintenance activates including determining possible pollutants, preventing runoff of pollutants and inspection of sites.
- Maintenance of structural controls.

BMP NO. 1 – CONTINUE, REVIEW AND UPDATE TRAINING PROGRAM FOR CITY EMPLOYEES

Description: The City will review its current training program for City employees responsible for storm water pollution prevention at municipal facilities and update the program as necessary. The City will conduct two trainings of City Staff per year. 100% of City Staff will be trained each year.

Responsible Parties: Public Works Director, City Staff, City Engineer

Measurable Goals: The measurable goals for implementation of this BMP is to review the existing operation and maintenance training program during each year of the permit period and implement updates (if necessary) to the training each year.

Implementation Schedule:

Year 1 – The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates as necessary.

Year 2 – The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates as necessary.

Year 3 – The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates as necessary.

Year 4 – The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates as necessary.
Year 5 – The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates if necessary.

BMP NO. 2 – CONTINUE SELF-AUDITS AND REVIEW AND UPDATE SELF-AUDIT CHECKLIST AND PROGRAM

Description: The City shall continue to perform yearly self-audits at all municipality owned sites as well as review its current self-audit/inspection checklist and inspection program and update the program as necessary.

Responsible Parties: Public Works Director, City Staff, City Engineer

Measurable Goals: The measurable goals for implementation of this BMP is to review the existing selfaudit checklist and inspection program during each year of the permit period and implement updates (if necessary) to the program each year.

Implementation Schedule:

Year 1 – The City shall continue to perform yearly self- audits and will review the self-audit form and inspection program and make updates as necessary.

Year 2 – The City will review the self-audit form and inspection program and make updates as necessary.

Year 3 – The City will review the self-audit form and inspection program and make updates as necessary.

Year 4 – The City will review the self-audit form and inspection program and make updates as necessary.

Year 5 – The City will review the self-audit form and inspection program and make updates as necessary.

BMP NO. 3 – DEVELOP A POLICY FOR CONTRACTOR REQUIREMENTS AND OVERSIGHT

Description: The City will develop a policy either as a new ordinance or an update to an existing ordinance requiring contractors working on City property or on City projects to comply with all City storm water control measures, good housekeeping practices, and facility-specific storm water management operating procedures. The new policy or update to an existing ordinance shall include oversight procedures to be conducted by the City of contractors working on City property or City projects. Contractor requirements established in the Small MS4 General Permit will be implemented by the City while the City develops a new policy document or updates an existing ordinance.

Responsible Parties: Public Works Director, City Council, City Manager, City Engineer

Measurable Goals: The measurable goals for implementation of this BMP is to develop either a new policy document or update an existing ordinance by permit year 5.

Implementation Schedule:

Year 1 – The City will review existing ordinances to determine if an existing ordinance can be updated to include contractor requirements and oversight as it pertains to stormwater management.

Year 2 – The City will develop a new ordinance or update an existing ordinance to include contractor requirements and oversite as it pertains to stormwater management.

Year 3 – City Staff will prepare a draft new ordinance or make draft changes to an existing ordinance.

Year 4 – The City will approve a new ordinance or changes to an existing ordinance.

Year 5 – The City will implement new policy with a new ordinance or changes to an existing ordinance.

BMP NO. 4 – YEARLY INSPECTION OF ALL CITY OWNED PONDS

Description: Currently the City inspects all City owned ponds and drainage channels on a yearly basis. This BMP will focus on continuing the effort to clean and maintain City owned ponds and drainage channels as well as track the inspections.

Responsible Parties: Public Works Director, City Staff

Measurable Goals: The measurable goals for implementation of this BMP is to inspect all City owned ponds and drainage channels on a yearly basis, track the inspections and clean and maintain the ponds and channels as needed.

Implementation Schedule:

Year 1 – The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required.

Year 2 – The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required.

Year 3 – The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required.

Year 4 – The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required.

Year 5 – The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required.

BMP NO. 5 – CITY OWNED PARK INVENTORY

Description: The City will prepare an inventory of all City parks including whether or not the parks have sidewalks, trash cans, dog waste cans and parking. Once the inventory is complete, the City will begin a program to install trash cans and dog waste cans and signage in all City parks.

Responsible Parties: City Engineer, City Staff

Measurable Goals: The measurable goals for implementation of this BMP is to develop an inventory of all City owned parks and what is located within the park. The City will install trash cans, signs and dog waste cans in all parks by the end of the permit period.

Implementation Schedule:

Year 1 – The City will develop an inventory of all City parks and their contents.

Year 2 – The City will install trash cans, dog waste cans and signage in 25% of City Parks.

Year 3 – The City will install trash cans, dog waste cans and signage in 25% of City Parks.

Year 4 – The City will install trash cans, dog waste cans and signage in 25% of City Parks.

Year 5 – The City will install trash cans, dog waste cans and signage in 25% of City Parks.

BMP NO. 6 – REVIEW CITY OPERATION AND MAINTENANCE MANUAL

Description: The City will review its current operation and maintenance manual and make any necessary modifications. The City will place copies of the manual at all pertinent City sites.

Responsible Parties: City Engineer, City Staff

Measurable Goals: The measurable goals for implementation of this BMP is to review the current operation and maintenance manual and make changes as necessary and have current copies of the manual at all pertinent City sites.

Implementation Schedule:

Year 1 – The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites.

Year 2 – The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites.

Year 3 – The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites.

Year 4 – The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites.

Year 5 – The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites.

BMP NO. 7 – REVIEW AND UPDATE SWMP ON AN ANNUAL BASIS

Description: The City will review and update the SWMP on an annual basis.

Responsible Parties: City Engineer, City Staff

Measurable Goals: The measurable goals for implementation of this BMP is to review and update the SWMP on an annual basis.

Implementation Schedule:

Year 1 – The City will review and update its SWMP on an annual basis.

Year 2 – The City will review and update its SWMP on an annual basis.

Year 3 – The City will review and update its SWMP on an annual basis.

Year 4 – The City will review and update its SWMP on an annual basis.

Year 5 – The City will review and update its SWMP on an annual basis.

BMP NO. 8 – CREATE AND IMPLEMENT A SPILL PREVENTION PLAN

Description: The City will create and implement a spill prevention plan.

Responsible Parties: City Engineer, City Staff, Public Works Director

Measurable Goals: The measurable goals for implementation of this BMP is to create and implement a spill prevention plan.

Implementation Schedule:

Year 1 – The City will develop a draft spill prevention plan.

Year 2 – The City will adopt a spill prevention plan and place copies at all City sites.

Year 3 – The City will review and make any necessary changes to spill prevention plan.

Year 4 – The City will review and make any necessary changes to spill prevention plan.

Year 5 – The City will review and make any necessary changes to spill prevention plan.

BMP NO. 9 – DISPOSAL OF WASTE MATERIAL

Description: The City of Manor shall dispose of waste materials generated from the MS4 in accordance with Title 30 of the Texas Administrative Code Chapters 330 or 335, as applicable. The City will develop a standard document summarizing the waste disposal procedures for waste collected due to municipal operations and maintenance activities.

Responsible Parties: City Staff, Public Works Director, City Engineer

Measurable Goals: Develop a small MS4 waste disposal program in Years 1 and 2. The City will implement the program in Year 2 and evaluate the program annually for any changes that may be needed.

Implementation Schedule:

Year 1 – The City will develop a draft MS4 waste disposal program.

Year 2 – The City will implement a MS4 waste disposal program and place copies at all City sites.

Year 3 – The City will continue to implement the waste disposal program. The City will review and make any necessary changes to spill prevention plan.

Year 4 – The City will continue to implement the waste disposal program. The City will review and make any necessary changes to spill prevention plan.

Year 5 – The City will continue to implement the waste disposal program. The City will review and make any necessary changes to spill prevention plan.

BMP NO. 10 – EVALUATE OPERATION AND MAINTENANCE ACTIVITIES FOR POTENTIAL TO DISCHARGE POLLUTANTS

Description: The City will evaluate operation and maintenance activities for their potential to discharge pollutants in stormwater for road and parking lot maintenance, bridge maintenance, cold weather operations and right-of-way maintenance.

Responsible Parties: City Engineer, City Staff, Public Works Director

Measurable Goals: The City of Manor will assess their operations and maintenance practices for road and parking lot maintenance, bridge maintenance, cold weather operations and right-of-way maintenance, identify pollutants of concern, develop and implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater and perform pollution prevention inspection measures.

Implementation Schedule:

Year 1 – The City will develop an inventory of roads, parking lots, bridges and right-of-ways that the City maintains.

Year 2 – The City will develop a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well.

Year 3 – The City will continue to implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well.

Year 4 – The City will continue to implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well.

Year 5 – The City will review and make any necessary changes to the operation and maintenance activities. The City will continue to implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well.

BMP NO. 11 – DEVELOP A LIST OF POLLUTANTS OF CONCERN THAT COULD BE DISCHARGED FROM OPERATION AND MAINTENANCE ACTIVITIES

Description: The City will develop a list of pollutants that could potentially be discharged for City operations and maintenance activities.

Responsible Parties: City Engineer, City Staff

Measurable Goals: The measurable goals for implementation of this BMP is to create and update a list of possible pollutants that could be discharged from City operation and maintenance activities.

Implementation Schedule:

Year 1 – The City will develop a list of possible pollutants.

Year 2 – The City will review and update list of possible pollutants as necessary.

Year 3 – The City will review and update list of possible pollutants as necessary

Year 4 – The City will review and update list of possible pollutants as necessary

Year 5 – The City will review and update list of possible pollutants as necessary

BMP NO. 12 – SANITARY SEWER INSPECTION PROGRAM

Description: The City will develop a program to periodically inspect wastewater collection lines, manholes and lift station that are City owned and maintained. The frequency will be al least once every five years. The inspections will include videotaping of lines in order to determine the integrity of the lines and identify any problem areas.

Responsible Parties: City Engineer, City Staff

Measurable Goals: The ongoing inspection of wastewater lines. In addition, measurable goals will include additional wastewater line inspection measures, if it determined that additional measures are needed to meet the requirements of this control measure.

Implementation Schedule:

Year 1 – The City will develop an inventory of all City sanitary sewer lines, manholes and lift stations.

Year 2 – The City will inspect 25% of the sanitary sewer lines, manholes and lift stations.

Year 3 – The City will inspect 25% of the sanitary sewer lines, manholes and lift stations.

Year 4 – The City will inspect 25% of the sanitary sewer lines, manholes and lift stations.

Year 5 – The City will inspect 25% of the sanitary sewer lines, manholes and lift stations.

MINIMUM CONTROL METHODS #6 & #7

MINIMUM CONTROL METHOD NO. 6 – INDUSTRIAL STORMWATER SOURCES

MINIMUM CONTROL METHOD NO. 7 – AUTHORIZATION FOR CONSTRUCTION ACTIVITIES WHERE THE SMALL MS4 IS THE SITE OPERATOR

MINIMUM CONTROL METHOD NO. 6 – INDUSTRIAL STORMWATER SOURCES

The requirement to identify and control stormwater discharges associated with industrial storm water sources is only applicable to Level 4 MS4 operators. The City of Manor is a Level 2 MS 4 operator and therefor is not required to comply with this MCM.

MINIMUM CONTROL METHOD NO. 7 – AUTHORIZATION FOR CONSTRUCTION ACTIVITIES WHERE THE SMALL MS4 IS THE SITE OPERATOR

The requirements under this MCM are optional and the City of Manor is not participating in this 7th (optional) MCM.

RECORD KEEPING AND REPORTING

RECORD KEEPING

Several documents are required to be kept per the TCEQ General Permit. The City of Manor shall retain the following documents for the permit period (5-years) to comply with the General Permit requirements:

1. The City shall retain all records, a copy of the TPDES general permit, and records of all data used to complete the application (NOI) for the general permit and satisfy the public participation requirements, for a period of at least three (3) years, or for the remainder of the term of this general permit, whichever is longer. This period may be extended by request of the executive director at any time.

2. The City shall submit the records to the executive director only when specifically asked to do so. The SWMP required by this general permit (including a copy of the general permit) must be retained at a location accessible to the TCEQ.

3. The City shall make the NOI and the SWMP available to the public at reasonable times during regular business hours, if requested to do so in writing. Copies of the SWMP must be made available within ten (10) working days of receipt of a written request. Other records must be provided in accordance with the Texas Public Information Act. However, all requests for records from federal facilities must be made in accordance with the Freedom of Information Act.

4. The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the City.

REPORTING

The City of Manor is required to report to the TCEQ at various times. A summary of the reporting requirements is below:

Noncompliance Notification

According to 30 TAC § 305.125(9), any noncompliance which may endanger human health or safety, or the environment, must be reported by the permittee to the TCEQ. Report of such information must be provided orally or by fax to the TCEQ Regional Office within 24 hours of becoming aware of the noncompliance. A written report must be provided by the permittee to the appropriate TCEQ Regional Office and to the TCEQ Enforcement Division (MC-224) within five working days of becoming aware of the noncompliance.

The written report must contain:

(1) A description of the noncompliance and its cause;

(2) The potential danger to human health or safety, or the environment;

(3) The period of noncompliance, including exact dates and times;

(4) If the noncompliance has not been corrected, the anticipated time it is expected to continue; and

(5) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

Other Information

When the City becomes aware that it either submitted incorrect information or failed to submit complete and accurate information requested in an NOI, NOT, or NOC, or any other report, the permittee shall promptly submit the facts or information to the executive director.

Annual Report

The City shall submit a concise annual report to the executive director within 90 days of the end of each reporting year. For the City of Manor, the reporting year is the calendar year. The annual report must address the previous reporting year.

The first reporting year for annual reporting purposes shall begin on the permit effective date and shall last for a period of one (1) year calendar year, therefore, the first reporting year will last until December 31, 2019.

The annual report must include:

(a) The status of the compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals;

(b) A summary of the results of information collected and analyzed, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

(c) If applicable, a summary of any activities taken to address the discharge to impaired

waterbodies, including any sampling results and a summary of the small MS4s BMPs used to address the pollutant of concern;

(d) A summary of the stormwater activities the City plans to undertake during the next reporting year;

(e) Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;

(f) Description and schedule for implementation of additional BMP's that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans. For waters that are listed as impaired after discharge authorization pursuant to Part II.D.4, include a list of such waters and the pollutant(s) causing the impairment, and a summary of any actions taken to comply with the requirements of Part II.D.4. b.

The City must sign and verify the annual report in accordance with 30 TAC 305.128. The annual report shall be submitted to:

Texas Commission on Environmental Quality Storm Water & Pretreatment Team; MC-148 P.O. Box 13087 Austin, Texas 78711-3087

A copy of the annual report must also be submitted to the TCEQ Regional Office that serves Manor.

Texas Commission on Environmental Quality Region 11, Austin, MC R11 P.O. Box 13087 Austin TX 78711-3087

Effective December 21, 2020, annual reports must be submitted using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

APPENDIX A

PERMIT IMPLEMENTATION SUMMARY AND TRACKING

DEADLINES: YEAR 1 – NOVEMBER 2020

YEAR 2 – NOVEMBER 2021

YEAR 3 – NOVEMBER 2022

YEAR 4 – NOVEMBER 2023

YEAR 5 – NOVEMBER 2024

| PUBLIC EDUCATION, OUTR | EACH AND INVOLVEMENT | | | | | | | |
|--|--|---|-------|--------------|-------|-------|-------|------------------------|
| Best Management | A otivity | | | eadline - No | | embei | r 30 | |
| Practices | Activity | Responsible Parties | Yr. 1 | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | 5 Date Completed |
| BMP No. 1 - Educational mailers | The City of Manor will mail out one flyer per year in the utility bills. | City Secretary, Assitant Development Director | x | x | x | x | x | |
| BMP No. 2 - Add Stormwater Informaiton to City Website | The City of Manor will create an email address for questions about the tip of the month. | Assistant Development Director | х | | | | | |
| | The City of Manor will update the City website for the tip of the month. | Assistant Development Director | | х | | | | |
| | The City of Manor will add tip of the month each month. | Assistant Development Director | | | х | х | х | |
| | The City of Manor will research and develop the pamphlet. | City Engineer, City Staff | Х | | | | | |
| BMP. No 3 - Create and dispense After the Storm flyers | The City of Manor will begin to distribute the flyer. | City Staff | | х | х | | | |
| | The City of Manor will review the existing pamphlet and update pamphlet. | City Engineer, City Staff | | | | x | | |
| | The City of Manor will distribute updated pamphlet. | City Staff | | | | | х | |
| BMP No. 4 - Storm Drain Medallions | The City of Manor will complete inventory of existing storm inlets. The City of Manor will create a new medallion detail that will be required on all City and private developer projects starting at the time the detail is released | City Engineer, City Staff | x | | | | | |
| | The City will place medallions on 25% of the existing inlets. | City Staff | | x | х | х | x | |
| BMP No. 5 - Add SWMP and | The City of Manor shall add a link to their SWMP to its website. | City Engineer, Asistant Development Director | x | | | | | |
| annual reports to website | The City of Manor shall place a link for the annual report on its website. | City Engineer, Assistant Development Director | | x | x | x | x | |
| | The City of Manor shall create pamphlets to educate residents on bacteria discharging from residential sites during runoff events; on fats, oils and grease clogging sanitary sewer lines resulting in overflws; on maintenance and operations of decorative ponds; and on proper disposal of pet waste. | City Engineer, City Staff | x | | | | | |
| BMP No. 6 - Create Residential | The City of Manor shall place 200 copies of the created discharge pamphlet at City Hall for distribution | Public Works Director, City Engineer, City Staff | | x | | | | |
| Edcuation Pamphletsl | The City of Manor shall place 200 copies of the created fats, oils and grease pamphlet at City Hall for public distribution. | Public Works Director, City Engineer, City Staff | | | x | | | |
| | decorative ponds at City Hall for public distribution. | Staff | | | | х | | |
| | The City of Manor shall place 200 copies of the proper disposal of pet waste pamphlet at City Hall for public distribution. | Public Works Director, City Engineer, City Staff | | | | | x | |

| ILLICIT DISCHARGE DECT | ECTION AND ELIMINATION | | | | | | | |
|--|---|---|---|------------------------|-------|-------|-------|-------------------|
| Post Managomont | | Responsible Parties Yr | | Deadline - November 30 | | | | |
| Practices | Activity | | | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | Date Completed |
| | The existing storm sewer map will be updated with new developments and any changes. | City Engineer | х | | | | | |
| BMP No. 1 - Maintain Storm Sewer System Map | The map will be updated with new developments and any changes. Names of receiving water bodies/creeks will be added and the map will be expanded as needed to show the receiving water bodies/creeks. | City Engineer | | x | | | | |
| | The map will be updated with new developments and any changes. | City Engineer | | | х | х | х | |
| BMP No. 2 - Education and Training of City Staff | Training will be provided to new and existing staff on illicit discharges and connections and a file of training material and attendance lists will be kept. | City Engineer, City Staff | x | x | x | x | x | |
| BMP No. 3 - Procedures for responding to illicit discharges and spills | The City will develop a standard written procedure for responding to illicit discharges and spills | Public Works Director, City Staff, City Engineer | x | | | | | |
| | The City will place written procedures in all City facilities. | Public Works Director, City Staff | | х | | | | |
| | The program will be reviewed to see if it is working and will be updated if needed. | Public Works Director, City Staff | | | x | | | |
| | The program will be updated (if needed) and new copies will be provided to City facilities. | Public Works Director, City Staff | | | | х | | |
| | The program will be continued/modified as needed. | Public Works Director, City Staff | | | | | х | |
| | City Engineer and City Attorney will review similar ordinances and develop recommendations for an ordinance for the City. | City Engineer, City Attorney | x | | | | | |
| BMP. No. 4 - illicit discharge detection and elimination | The City Engineer and City Attorney will prepare a draft ordinance for City Official review. | City Engineer, City Attorney | | x | | | | |
| ordinance | The City will approve new Illicit Discharge ordinance | City Engineer, City Attorney | | | х | | | |
| | The Ordinance will be reviewed and modifications will be made as needed. | City Engineer, City Attorney | | | | х | х | |
| | The City will develop draft procedures for investigating, eliminating and inspecting illicit discharges. | Public Works Director, City Engineer, City Staff | x | | | | | |
| BMP No. 5 - Source | The City will complete a written procedure for investigating, eliminating and inspecting illicit discharges. | Public Works Director, City Engineer, City Staff | | x | | | | |
| investigation, elimination and inpsections of illicit discharges | The City will train field staff on the new procedures. | Public Works Director, City Engineer, City Staff | | | x | | | |
| | The program will be fully operational. | Public Works Director, City Engineer, City Staff | | | | х | | |
| | The program will be reviewed and modifications will be made as needed. | Public Works Director, City Engineer, City Staff | | | | | x | |

| ILLICIT DISCHARGE DECT | ECTION AND ELIMINATION - CONTINUED | | | | | | | |
|--|---|--|-------|--------|-------|-------|-------|-------------------|
| Best Management | | | De | adline | - Nov | ember | 30 | |
| Practices | Activity | Responsible Parties | Yr. 1 | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | Date Completed |
| BMP. No. 6 - Create a hotline for reporting illicit discharges. | The City will create a hotline and email address for illicit discharge reporting and assign City Staff to review reports. | City Staff, City Engineer, Assistant Development Director | x | | | | | |
| | The hotline number and email will be added to City website. | City Staff, City Engineer, Assistant Development Director | | х | | | | |
| | The City will review 100% of all reports and respond to at least 50%. | City Staff, City Engineer, Assistant Development Director | | | x | х | | |
| | The City will review 100% of all reports and respond to at least 50%. The City will review the program and make any necessary changes. | City Staff, City Engineer, Assistant Development Director | | | | | x | |
| BMP No. 7 - Annual check of impaired water bodies list | The City of Manor will check to see if any water bodies in the City's MS4 area have been added to the impaired water body list. | City Staff, City Engineer, Assistant Development Director | x | x | x | x | x | |
| | City Staff and City Engineer will preparwritten procedures for investigating and reporting onsite septic systems leakages to Travis County. | City Staff, City Engineer, Public Works Director | x | | | | | |
| | The City will investigate 50% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well. | City Staff, City Engineer, Public Works Director | | x | | | | |
| BMP No. 8 - Procedures to prevent and correct leaking Onsite Sewage Disposal Sytems | The City will investigate 75% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well. | City Staff, City Engineer, Public Works Director | | | x | | | |
| | The City will investigate 100% of reported on-site septic system leakages and report leakages and issues to Travis County. City Staff will report any issues to Travis County that they encounter as well. | City Staff, City Engineer, Public Works Director | | | | x | | |
| | The City will review of 100% of all reported on-site septic system leakages. City Staff will report any issues to Travis County that they encounter as well. The City will review the program and make any necessary changes. | City Staff, City Engineer, Public Works Director | | | | | x | |

| CONSTRUCTION SITE STOR | MWATER RUNOFF CONTROL | | | | | | | |
|--|--|---|-------|--------|-------|----------|-------|-------------------|
| Best Management | | Describle Deskies | De | adline | - Nov | ember 30 | | |
| Practices | Activity | Responsible Parties | Yr. 1 | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | Date Completed |
| BMP No. 1 - Construction site inspections | The City will inspect 100% of active construction projects and attend all preconstruction and post construction meetings. | City Staff, City Engineer | x | x | x | x | x | |
| | The City will begin process of developing training log book system. | City Staff, City Engineer, City Building Inspector | x | | | | | |
| BMP No. 2 - Establish MS4 tracking system for City Staff | The City will continue developing training log book system. | City Staff, City Engineer, City Building | | x | | | | |
| | The City will track annual training and record data. | City Staff, City Engineer, City Building | | | x | x | x | |
| | City Staff and City Engineer will prepare draft procedures. | City Staff, City Engineer, City Building | x | | | | | |
| BMP No. 3 - Establish written | The City will implement new procedures. | City Staff, City Engineer, City Building | | x | | | | |
| procedures for construction plan review, site inspections | The City will review existing procedures and make modifications as needed. | City Staff, City Engineer, City Building | | | x | | | |
| and enforcement | The City will continue to follow written procedures. | City Staff, City Engineer, City Building Inspector | | | | x | | |
| | The City will continue to follow written procedures. | City Staff, City Engineer, City Building Inspector | | | | | x | |
| | City will prepare draft field guide. | City Engineer, City Attorney | x | | | | | |
| BMP. No.4 - Establish an erosion control field guide for | The hotline number and email will be added to City website. | City Engineer, City Attorney | | x | | | | |
| contractors | The City will review 100% of all reports and respond to at least 50%. | City Engineer, City Attorney | | | х | х | | |
| | The City will review 100% of all reports and respond to at least 50%. The City will review the program and make any necessary changes. | City Engineer, City Attorney | | | | | x | |

| CONSTRUCTION SITE STOP | RMWATER RUNOFF CONTROL CONTINUED | | | | | | | |
|---|--|--|---|---|---|---|---|--|
| BMP. No. 5 - Establish written procedures for erosion controls on individual lots | City Staff, City Attorney and City Engineer will review existing ordinances and create drafts to update existing or create new ordinances as needed. | City Engineer, City Attorney | х | | | | | |
| | The City Engineer and City Attorney will prepare a draft ordinance for City Official review. | City Engineer, City Attorney | | x | | | | |
| | The City will adopt new ordinance or updates to existing ordinances and begin enforcement. | City Engineer, City Attorney, City Building Inspector, City Staff, City Council | | | x | | | |
| | The ordinances will be reviewed and modifications will be made as needed. | City Engineer, City Attorney, City Building Inspector, City Staff, City Council | | | | x | x | |
| | The City will review similar type guides and prepare a draft guide. | City Engineer, City Staff | х | | | | | |
| BMP. No. 6 - Establish a waste | The management guide will be finalized. | City Engineer, City Staff | | x | | | | |
| management guide for construction sites. | The City will begin to distribute management guide at preconstruction conferences and all job sites within the City's MS4. | City Engineer, City Staff | | | x | | | |
| | The City will conitinue to distribute the management guide at preconstruction conferences and all job sites within the City's MS4. | City Engineer, City Staff | | | | x | x | |

| POST CONSTRUCTION STO | RMWATER MANAGEMENT | | | | | | | |
|--|--|--|-------|----------------|-------|-----------|-------|-------------------|
| Best Management | A _11 | Desperatible Dortion | De | Deadline - Nov | | vember 30 | | 4 |
| Practices | | Responsible Parties | Yr. 1 | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | Date Completed |
| | The City will prepare draft modifications to existing ordinance. | City Building Inspector, City Code Enforcement Officer, City Staff, City Engineer, City Attorney, City Council | | x | | | | |
| BMP No. 1 - Review and update ordinances assoicated with post-construction stormwater runoff control. | The City will evaluate and develop modifications to existing ordinances for requirements for private property owners developing or redeveloping one-acre or more to perform maintenance on storm control structures. | City Building Inspector, City Code Enforcement Officer, City Staff, City Engineer, City Attorney, City Council | | | x | | | |
| | The City will finalize program modifications. | City Building Inspector, City Code Enforcement Officer, City Staff, City Engineer, City Attorney, City Council | | | | x | | |
| | The City will implement program modifications. | City Building Inspector, City Code Enforcement Officer, City Staff, City Engineer, City Attorney, City Council | | | | | x | |
| | The City will evaluate existing process for document retention used by other municipalities. | Public Works Director, Code Enforcement Officer | x | | | | | |
| BMP No. 2 - Develop | The City will develop updated draft process for document retention. | Public Works Director, Code Enforcement Officer | | x | | | | |
| document retention program | The City will implement program for document retention. | Public Works Director, Code Enforcement Officer | | | x | | | |
| | The City will continue document retention. | Public Works Director, Code Enforcement Officer | | | | x | x | |
| | The City will develop an inventory of runoff controls along with a database to track inspections and maintenance. | City Staff, City Engineer, Public Works Director | x | | | | | |
| BMP No. 3 - Inventory, Inspection and Maintenance of structural runoff controls. | The City will begin semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance. | City Staff, City Engineer, Public Works Director | | x | | | | |
| | The City will continue semi-annual inspection of all City owned runoff controls and perform maintenance as required and document inspections and maintenance. | City Staff, City Engineer, Public Works Director | | | x | x | x | |

| POLLUTION PREVENTION/ | GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS | | | | | | | |
|---|---|---|----|----------------------|-------|-------|-------|-------------------|
| Best Management | Activity | Deense ikke Deeties | De | adline - November 30 | | | | |
| Practices | Activity | Responsible Parties | | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 | Date Completed |
| BMP No. 1 - Review and update training program for City employees | The City will review its training program to reduce pollutant runoff caused by municipal operations and make updates if necessary,. | Public Works Director, City Staff, City Engineer | x | x | x | x | x | |
| BMP No. 2 - Review and update selef-audit checklist and program | The City will reivew the self-audit form and inpsection program and make updates if necessary. | Public Works Director, City Staff, City Engineer | x | x | x | x | x | |
| RMP No. 3 - Develop a policy | The City will review existing ordinances to determine if an existing ordinance can be updated to include contractor requirements and oversight as it pertains to stormwater management. | Public Works Director, City Council, City Manager, City Engineer | x | | | | | |
| | The City will develop a new ordinance or update an existing ordinance to include contractor requirements and oversite as it pertains to stormwater management. | Public Works Director, City Council, City Manager, City Engineer | | x | | | | |
| for contractor requirements and oversight | City Staff will prepare a draft new ordinance or make draft changes to an exisitng ordinance. | Public Works Director, City Council, City Manager, City Engineer | | | x | | | |
| | City Staff will propose new ordinance or changes to an existing ordinance. | Public Works Director, City Council, City Manager, City Engineer | | | | х | | |
| | The City will implement new policy with a new ordinance or changes to an existing ordinance. | Public Works Director, City Council, City Manager, City Engineer | | | | | x | |
| BMP No. 4 - Yearly inpsections of all City owned ponds | The City will inspect City owned ponds and drainage channels. The City will track inspections and conduct maintenance as required. | Public Works Director, City Staff | x | x | x | x | x | |
| BMP No. 5 - City Owned Park | The City will develop an inventory of all City Parks and their contents. | City Staff, City Engineer | x | | | | | |
| Inventory | The City will install trash cans, dog waste cans and signage in 25% of City Parks. | City Engineer, Assistant Development Director | | x | x | x | x | |
| BMP No. 6 - Review City Operation and Maintenance Manual | The City will review its current operation and maintenance manual and make any necessary modifications and place manual at all pertinent City sites. | City Staff, City Engineer | x | x | x | x | x | |

| POLLUTION PREVENTION/ | GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS CONTINUED | | | | | | | |
|--|--|---|---|---|---|---|---|--|
| BMP No. 7 - Review and updated SWMP Annually | The City will review and update its SWMP on an annual basis. | City Staff, City Engineer | x | x | x | x | x | |
| BMP No. 8 - Create and Implement a Spill Prevention Plan | The City will develop a draft spill prevention plan. | City Staff, City Engineer, Public Works Director | х | | | | | |
| | The City will implement a MS4 waste disposal program and place copies at all City sites. | City Staff, City Engineer, Public Works Director | | x | | | | |
| | The City will continue to implement the waste disposal program. The City will review and make any necessary changes to spill prevention plan. | City Staff, City Engineer, Public Works Director | | | x | x | x | |
| BMP No. 9 - Disposal of Waste Material | The City will develop a draft MS4 waste disposal program. | City Staff, City Engineer, Public Works Director | x | | | | | |
| | The City will adopt a spill prevention plan and place copies at all City sites. | City Staff, City Engineer, Public Works Director | | x | | | | |
| | City will continue to implement the waste disposal program. The City will review and make any necessary changes to spill prevention plan. | City Staff, City Engineer, Public Works Director | | | x | x | x | |
| | The City will develop an inventory of roads, parking lots, bridges and right-of-ways that the City maintains. | City Staff, City Engineer, Public Works Director | x | | | | | |
| BMP No. 10 - Evaluate | The City will develop a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well. | City Staff, City Engineer, Public Works Director | | x | | | | |
| Operation and Maintenance Activities for Potential to Discharge Pollutants | The City will continue to implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well. | City Staff, City Engineer, Public Works Director | | | x | x | | |
| | The City will review and make any necessary changes to the operation and maintenance activities. The City will continue to implement a set of pollution prevention measures to reduce the discharge of pollutants in stormwater. The City will update inventory as well. | City Staff, City Engineer, Public Works Director | | | | | x | |
| BMP No. 11 - Develop a list of pollutants of concern that | The City will develop a list of possible pollutants. | City Engineer, City Staff | x | | | | | |
| could be discharged from operation and maintenance activities. | The City will review and update list of possible pollutants as necessary. | City Engineer, City Staff | | x | x | x | x | |
| BMP No. 12 - Sanitary Sewer | The City will develop an inventory of all City sanitary sewer lines, manholes and lift stations. | City Engineer, City Staff | х | | | | | |
| Inspection Program | The City will inspect 25% of the sanitary sewer lines, manholes and lift stations. | City Engineer, City Staff | | x | х | x | х | |

APPENDIX B

TDML IMPLEMENTATION PLAN FOR GILLELAND CREEK



Submitted November 16, 2017

Revised Implementation Plan for One Total Maximum Daily Load for Bacteria in Gilleland Creek

Segment 1428C

Assessment Units 1428C_01, 1428C_02, 1428_03 and 1428C_04

PREPARED BY THE GILLELAND CREEK IMPLEMENTATION PLAN REVISION STAKEHOLDER GROUP With support from Center For Public Policy Dispute Resolution (University of Texas) and the TMDL Team, Water Quality Planning Division, Office of Water TEXAS COMMISSION ON ENVIRONMENTAL QUALITY Prepared by the Gilleland Creek Implementation Plan Revision Stakeholder Group

With support from University of Texas Center for Public Policy Dispute Resolution

and

TMDL Team, Water Quality Planning Division, Office of Water Texas Commission on Environmental Quality

> Distributed by the Total Maximum Daily Load Team Texas Commission on Environmental Quality MC-203 P.O. Box 13087 Austin, Texas 78711-3087 E-mail: tmdl@tceq.texas.gov

TMDL implementation plans are also available on the TCEQ website at </www.tceq.texas.gov/waterquality/tmdl/>

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Abbreviations

| BMP | best management practice |
|---------|---|
| cfu | colony-forming units |
| CRWN | Colorado River Watch Network |
| E. coli | <i>Escherichia coli</i> (also referred to as fecal bacteria, or fecal |
| | contamination) |
| EII | Environmental Integrity Index |
| EPA | U.S. Environmental Protection Agency |
| I-Plan | implementation plan |
| LCRA | Lower Colorado River Authority |
| mL | milliliter |
| MPN | most probable number |
| MS4 | municipal separate storm sewer system |
| NRCS | Natural Resources Conservation Service |
| OSSF | on-site sewage facility |
| SSO | sanitary sewer overflow |
| SWMP | stormwater management plan |
| TAC | Texas Administrative Code |
| TCEQ | Texas Commission on Environmental Quality |
| TMDL | total maximum daily load |
| TPDES | Texas Pollutant Discharge Elimination System |
| TSSWCB | Texas State Soil and Water Conservation Board |
| TV | closed-circuit television |
| USDA | United States Department of Agriculture |
| WWTF | wastewater treatment facility |
| | |

5

Revised Implementation Plan for One TMDL for Bacteria in Gilleland Creek

Executive Summary

Gilleland Creek runs through the cities of Pflugerville, Round Rock, Manor and Austin in eastern Travis County. In 2004, the creek was identified as impaired due to concentrations of *Escherichia Coli* (*E. coli*) fecal bacteria that exceeded the Texas Surface Water Quality Standards for contact recreation. On August 8, 2007, the Texas Commission on Environmental Quality (TCEQ) adopted *One Total Maximum Daily Load (TMDL) for Bacteria in Gilleland Creek* (Segment 1428C) to address the bacteriological impairment and the U.S. Environmental Protection Agency (EPA) approved the TMDL on April 21, 2009. Primarily, the TMDL established the maximum amount of bacteria the creek could accept and still meet the state's standards. The second part of the TMDL process is an Implementation Plan (I-Plan) that describes the strategy and activities the TCEQ and watershed stakeholders will implement to improve water quality in the affected watershed.

This revised I-Plan, which updates the original plan developed by the stakeholders and approved by the TCEQ in 2011,¹ is based on the TMDL and its subsequent revisions, which are documented in updates to the state's Water Quality Management Plan. The TMDL identified potential regulated and unregulated sources of *E. coli*. Regulated dischargers in the Gilleland Creek watershed include domestic wastewater treatment facilities (WWTFs), industrial facilities, municipal solid waste facilities, and regulated stormwater dischargers. Potential unregulated *E. coli* sources identified in the TMDL include malfunctioning on-site sewage facilities (OSSFs), agricultural practices, development, and pet, wildlife, and unmanaged animal waste.

The goal of this revised I-Plan is the continued reduction of bacteria concentrations in Gilleland Creek to levels that meet the contact recreation criterion defined in the Texas Surface Water Quality Standards. The stakeholders in the watershed implement the I-Plan through voluntary management measures and/or mandatory, regulatory control actions. This plan documents the stakeholder-developed management measures and control actions that are being employed to mitigate bacteria contributions. The management measures and control actions are being implemented by the

¹ *Implementation Plan for One Total Maximum Daily Load for Bacteria in Gilleland Creek: Segment 1428C*, approved by TCEQ February 9, 2011.

Revised Implementation Plan for One TMDL for Gilleland Creek

stakeholders under an adaptive management approach that assesses the efficiency and effectiveness of the actions and allows for changing conditions.

Regulated entities in the watershed include the City of Austin, classified as a large (Phase 1) Municipal Separate Storm Sewer System (MS4) and the five entities of the City of Manor, City of Pflugerville, City of Round Rock, Texas Department of Transportation, and Travis County, classified as small (Phase 2) MS4s. The cities of Austin and Pflugerville, as well as the Windermere Utility Company, operate regulated WWTFs within the watershed.

These stakeholder regulated entities are distinguished via their respective permit requirements. Current draft revisions to the Texas Pollutant Discharge Elimination System (TPDES) General Permit for the small MS4 entities will require compulsory implementation of specified best management practices (BMPs) for the pollutant of concern (bacteria). These BMPs are identified in the respective small MS4 permittees' Storm Water Management Plans. For the purposes of this revised I-Plan, the compulsory BMPs for the small MS4s are effectively control actions for the regulated entities.

Included in this revised I-Plan is a summary of the TMDL, details of the plan's implementation and progress, and a summary of the implementation strategy. Management measure and control action discussions provide detailed information on the practices, targets, implementation, sustainability, and measurable progress for each activity. Regulated stakeholders will report their progress each April, to be posted to the TCEQ's website for the I-Plan. Each May, stakeholders will meet to assess progress and adjust implementation strategies to better effect the goal of improving water quality.

Introduction

In November 2016, with five years of implementation under their belts, the stakeholders determined to update their I-Plan, using an adaptive management approach to make revisions based on the state of science, what they know about the effectiveness of current management measures, and best management practices. Stakeholders formed a planning team to help guide the process. The stakeholder group was open to all "individuals or representatives of organizations who are (1) in the Gilleland Creek watershed, (2) who may be affected by or may affect water quality in the watershed, or (3) who can develop or implement actions to reduce water quality problems in the watershed."² The group agreed that a smaller subset of those individuals and representatives of entities who would be responsible for implementation of management measures

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² Meeting Guidelines, Gilleland Creek Implementation Plan Revision Stakeholder Group, approved May 15, 2017.

Revised Implementation Plan for One TMDL for Gilleland Creek

and control actions would serve as a decision-making group,³ with the goal of making decisions by consensus.

Stakeholders agreed to work toward the goal of assuring the I-Plan:

- Allows Gilleland Creek to meet contact recreations standards; and
- Manages the entire Gilleland Creek watershed through cooperation among jurisdictions and citizens, and by tailoring solutions to each entity's unique needs.

Participants noted that although the TMDL goal is meeting the water quality standard minus five percent, the I-Plan goal is to actually meet the standard.

The entire stakeholder group met six times, beginning November 2016, to review the most current data about water quality and development in the watershed, to understand the intersection of the stormwater permitting process with the I-Plan process, and to review best management practices. The decisionmaking entities designated under the group's operational guidelines met via conference call one additional time to coordinate decisions on the final plan draft and process for completion, and coordinated the text and approval of the final plan electronically.

This revised plan reflects the management measures and control actions that the decision-making entities have identified for implementation to meet the goals for the Gilleland Creek I-Plan. One key for holders of Phase 2 MS4 permits was to assure that the revised I-Plan was flexible enough to reflect changes in the actions required under their MS4 permits, but not to impose additional voluntary actions that might then become mandatory under their MS4 permits. Throughout the process, the stakeholders wrestled with the issue of how best to involve the public, both in developing the I-Plan revisions as well as in actions to improve the water quality in Gilleland Creek.

The group agreed to provide annual reporting about the plan's implementation each April, followed by an annual meeting in May to assess progress and make any needed changes in implementation or management measures and control actions.

³ The following entities are represented on the decision-making group: Cities of Austin, Manor, Pflugerville, and Round Rock; Lower Colorado River Authority; Texas Department of Transportation; Travis County; and Windermere Utility Company.

TMDL Summary

Detailed information about Gilleland Creek (Segment 1428C) and the fecal bacteria impairment can be found in the TMDL (<u>TCEO 2007</u>) and the initial Gilleland Creek I-Plan (<u>TCEO 2011</u>). Gilleland Creek is approximately 31 miles long, with a watershed area of 76 square miles located in eastern Travis County (Figure 1). The Gilleland Creek watershed includes portions of the full-purpose jurisdictions of the cities of Austin, Manor, Pflugerville, and Round Rock.



Figure 1. Map of Gilleland Creek within Travis County, Texas

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Revised Implementation Plan for One TMDL for Gilleland Creek

While the majority of the Gilleland Creek watershed remains undeveloped or agricultural (Figure 2), land cover is transitioning to urban uses over time with increasing population. The estimated total population within the watershed was 44,139 people in 2000 (TCEQ 2007) and 77,122 in 2010 (U.S. Census Bureau 2010). Population within the watershed is projected to reach 99,412 in 2025 based on City of Austin estimates. Livestock uses continue to decrease in Travis County with increasing urbanization. Estimated number of cattle in Travis County have declined from 54,000 in 2002 to 20,000 in 2017 (USDA 2017).



Figure 2. Land use in the Gilleland Creek watershed, based on City of Austin 2006 land use information

Source: City of Austin Geographic Information System

Gilleland Creek was first identified as not supporting the contact recreation criteria in the 2004 Texas Water Quality Inventory and 303(d) List (https://www.tceq.texas.gov/waterquality/assessment/04twqi/twqi04.html) because the geometric mean *E. coli* bacteria concentration was 240 colonyforming units (cfu) per 100 milliliters (mL) in Assessment Unit 1428C_01, relative to the contact recreation standard of 126 cfu/100 mL. Gilleland Creek *E. coli* concentrations remain elevated above the contact recreation standards of 126 cfu/100 mL as of 2014 (Table 1). More detailed information on spatial and temporal trends in *E. coli* bacteria levels may be found in Appendix 1.

Table 1. Gilleland Creek E. coli bacteria geometric means from the 2014 Texas Integrated Report for Clean Water Act Sections 303(d) and 305(b)

Source: TCEO 2014

| Assessment Unit | Assessment Unit Description | <i>E. coli</i> geometric mean (cfu/100 mL) |
|--------------------|---|---|
| 1428C_01 | From the Colorado River upstream to Taylor Lane | 126 |
| 1428C_02 | From Taylor Lane upstream to Old Highway 20 | 105.3 |
| 1428C_03 | From Old Highway 20 to Cameron Road | 203.96 |
| 1428C_04 | From Cameron Road to the spring source | 327.34 |

The most probable sources of fecal contamination within the watershed are nonpoint in origin (TCEQ 2007). Nonpoint sources of fecal contamination most likely include wildlife, domestic pets, livestock, leaking centralized wastewater collection infrastructure, and failing OSSFs.

Implementation Progress

The following is a summary of implementation progress under the Gilleland Creek 2011 I-Plan.

Management Measure 1 Progress

Identify, prioritize, inspect, and bring into compliance malfunctioning OSSFs in the Gilleland Creek watershed.

City of Austin Status

Austin inspected 20 of 42 active OSSFs in the watershed and found 18 to be in good working order. One OSSF was properly abandoned as a result of the inspections. EPA SepticSmart Program door hangers were distributed to OSSF owners and a free homeowner training was conducted on OSSF maintenance. Austin improved its local OSSF ordinance in 2013 (http://www.austintexas.gov/ossf).

Travis County Status

Travis County inspected 19 out of 59 active OSSFs within the Gilleland watershed and found all 19 to be functional and in good working condition. Outreach materials were sent via certified mail to all identified property owners in the area. The County OSSF regulations were updated by the Commissioners Court in 2014 (https://www.traviscountytx.gov/images/commissioners_court/Doc/coun

ty-code/chapter-48.pdf).

Revised Implementation Plan for One TMDL for Gilleland Creek

Lower Colorado River Authority (LCRA) Status

 LCRA's OSSF Program does not have jurisdiction in the Gilleland Creek watershed and focuses operations within a buffer zone around the Highland Lakes. However, LCRA OSSF staff have served as an information resource by providing educational materials that can be modified for use in educating OSSF owners within the Gilleland Creek watershed on proper maintenance of their systems.

Management Measure 2 Progress

Restore and preserve riparian zones to protect water quality.

City of Austin Status

- Austin adopted new regulations in 2013 to protect floodplains and riparian areas from unsustainable development practices. Stream protective buffers were expanded to now begin at 64 acres of cumulative drainage area, adding protection for more than 400 miles of streams in Austin that were not previously protected (<u>http://www.austintexas.gov/department/watershed-protection-</u> ordinance).
- Austin published 30 scientific publications relating to riparian zone management during the 2011-2015 plan timeframe. These and other reports are available online at <u>http://www.austintexas.gov/watershed_protection/publications/default.c</u> <u>fm</u>, and via the City of Austin riparian blog at <u>http://www.austintexas.gov/creekside</u>.

Texas State Soil and Water Conservation Board Status

- The Texas State Soil and Water Conservation Board (TSSWCB) has partnered with the Texas Water Resources Institute, Texas Riparian Association, Texas A&M Forest Service, Texas Parks and Wildlife Department, U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) and many other partners to provide and deliver educational programs about the nature and function of riparian zones and vegetation, their benefits, local technical resources, and BMPs for protecting them.
- On April 18, 2017, a Riparian and Stream Ecosystem workshop was held in the watershed, reaching 48 people. The training, including a field tour of local riparian areas, focused on water quality issues relating to Gilleland Creek, including riparian vegetation ratings, how to photo monitor, and local resources for landowners.

Travis County Status

- Travis County adopted code regulations in 2012 that created buffer zones to protect waterways from unsustainable development practices. Stream protection buffers zones begin at 64 acres of drainage area and vary in length from 100 to 300 feet. Drainage areas are calculated as cumulative. To date, Travis County has protected over 4,000 feet of development from occurring near Gilleland Creek.
- In addition, Travis County Parks Department has acquired 1,667 acres of riparian lands within the watershed that will serve as open spaces for the general public and be protected from future development.

LCRA Status

- Over the past five years, the LCRA Creekside Conservation Program has continued to offer technical and financial assistance to private landowners implementing BMPs within the Gilleland Creek watershed. Through a unique partnership with the TSSWCB and the NRCS, the Creekside program prioritizes conservation projects within impaired water bodies in hopes of reducing soil erosion and nonpoint source pollution.
- Education and outreach within the impaired watersheds is a strong focus of the grant-funded program. On May 5, 2016, 59 participants attended an educational event hosted by LCRA in Pflugerville, Texas to promote the program and explain the benefits of BMPs.
- Although no landowners within the Gilleland Creek watershed have utilized the program yet; the LCRA plans to continue to offer and prioritize the program within the watershed.

Management Measure 3 Progress

Determine the effectiveness of retrofitting existing stormwater detention basins to perform as water quality facilities to reduce bacteria concentrations.

Center for Research in Water Resources and City of Pflugerville Status

• The final report titled *Retrofit of an Existing Flood Control Facility to Improve Pollutant Removal* (Gilpin & Barrett 2014) determined that the retrofitted stormwater detention basin to a water quality facility showed no significant reduction in *E. coli* or total phosphorus concentrations between the inlet and outlet of the test basin. However, the water quality facility proved effective in reducing other present stormwater pollutants such as Total Kjeldahl Nitrogen, nitrate+nitrite, and total suspended solids. The City of Pflugerville opted not to continue with funding the ongoing operational costs of the retrofit since it was not an effective solution in reducing bacteria concentrations to a level that would meet the contact recreational criterion defined in the Texas Surface Water Quality Standards.
Management Measure 4 Progress

Partners coordinate to develop a general campaign to raise public awareness of unregulated contributions of bacteria pollution, specifically pet waste.

City of Austin status

 Austin continues the Scoop the Poop education campaign, a robust regional pet waste management public outreach effort. In 2016, the City of Austin estimates that more than 3,126,000 pounds/annually of pet waste have potentially been diverted from streams and lakes in Austin as a result of the Scoop the Poop program: http://www.austintexas.gov/department/scoop-the-poop.

Travis County Status

• Travis County has successfully handed out over 7,500 pet waste disposal bags as part of its public outreach effort to educate the public on the proper disposal of pet waste. The bags are provided along the walking trails within the County's Northeast Metropolitan Park, which is located along the banks of Gilleland creek in the City of Pflugerville.

City of Pflugerville Status

• The City of Pflugerville continues to make efforts to reduce the amount of pet waste present in stormwater runoff. Educational brochures and pet waste bag dispensers are regularly handed out at community events and distributed at various departments throughout the city. Outreach is also conducted multiple times a year through social media. Furthermore, as more parks and trail land are acquired or built, the City continues to do its best to install and provide maintenance of signage/ pet waste collection bag dispensers.

City of Round Rock Status

• The City of Round Rock installed 68 pet waste stations throughout city parks and conducted public education through utility bill newsletters, social media, and its webpage.

Management Measure 5 Progress

Develop and adopt equivalent water-quality ordinances between government jurisdictions.

City of Austin/Travis County Status

In 2014, Travis County Commissioners approved amendments to Title 30 of the City of Austin Land Development Code relating to Joint Travis County/City of Austin Subdivision Regulations to implement the City of Austin Watershed Protection Ordinance (see Management Measure 2 Progress). One of the principal effects of these amendments was to expand setbacks for new development around waterways to protect riparian areas, including those within the Gilleland Creek watershed.

City of Pflugerville Status

Due to some funding issues and development concerns, the City of Pflugerville has chosen not to adopt any water quality ordinances at this time. However, the City does not prohibit any proposed water quality efforts initiated by developers and continues to maintain compliance with its regulatory obligations outlined in the TPDES Phase II MS4 permit. As the City continues to grow, it will evaluate the feasibility of future water quality initiatives. Just recently, for example, the City Council adopted the Strategic Plan for 2016-2017, directing City staff members to introduce concepts of a Drainage Master Plan and possible funding mechanisms including a Drainage Utility Fee. A Drainage Master Plan and associated fee could potentially create new funding for further watershed analysis and research that could enable the City to better understand potential repercussions of implementing water quality ordinances. However, any such ordinances will likely better serve the Wilbarger Creek and Cottonwood Creek watersheds, as the areas within the Gilleland Creek watershed are mostly developed at this point.

City of Round Rock Status

• City of Round Rock has limited jurisdictional area within the Gilleland watershed and an even smaller area abutting or adjacent to any waterways. Almost all of Round Rock's Gilleland watershed is already in a developed condition. The remaining undeveloped tract setbacks will be regulated though floodplain and zoning regulations that consider the fully-developed 100-year floodplain. To facilitate these efforts, the City of Round Rock hired the Federal Emergency Management Agency contractor to create fully-developed 100-year floodplains along Gilleland Creek during the recent Federal Emergency Management Agency map revisions.

Management Measure 6 Progress

Conduct annual visual inspection of wastewater collection systems within 100 feet from the centerline of Gilleland Creek and its tributaries.

City of Austin Status

• Austin inspected approximately 6.64 miles of wastewater collection system components within 100 feet of Gilleland Creek and its tributaries, and no failures were identified.

Windermere Utility Company Status

 Windermere Utility conducts an annual inspection of the wastewater collection systems within 100 feet of Gilleland Creek and its tributaries. During 2015 one failure was identified and repaired. No other failures have been identified.

City of Pflugerville Status

• The City of Pflugerville continues to conduct yearly visual inspections of the wastewater collection system within 100 feet of Gilleland Creek and its tributaries via smoke testing and running cameras. The City makes repairs as needed and reinforces the lines and manholes as technology changes.

City of Round Rock Status

• The City of Round Rock inspected all of its wastewater lines in the Gilleland Creek watershed. One point repair was completed in 2017 to a small area of damage made during potholing by another utility company. No other problems or defects were found.

Control Action 1 Progress

Monitor and report E. coli concentrations from WWTF effluent.

City of Austin Status

 As of 2017, the City of Austin operates four WWTFs discharging within the Gilleland Creek watershed. Operational improvements were made during the 2011-2016 I-Plan period as a result of fecal bacteria effluent monitoring results. The Harris Branch WWTF (WQ0013318-001) flows were diverted to the Wild Horse Ranch WWTF (WQ0010543-013) on June 26, 2017. The Whisper Valley WWTF, also known as the Taylor Lane WWTF (WQ0010543-014), is under construction, and construction is anticipated to be completed in fall 2017.

Windermere Utility Company Status

• Windermere Utility currently operates one WWTF that discharges directly into Gilleland Creek. The fecal bacteria in these WWTF flows are monitored and reported according to the TPDES permit requirements.

City of Pflugerville Status

 The Upper Gilleland Creek WWTF remains in operation and compliance with the TPDES Multi-Sector General Permit (MSGP) (TXR05BN19), and Wastewater permit (WQ0011845002). The facility discharges up to 5.3 million gallons per day directly into Gilleland Creek. It uses chlorination/dechlorination as its primary disinfection method. The City is currently in the planning process of making major improvements to the facility in order to increase capacity and implement more modern technologies for wastewater treatment.

Implementation Strategy Summary

This revised I-Plan documents 12 management measures and two control actions to reduce bacteria loads. Management measures are voluntary activities, such as restoring and improving riparian buffer zones. Management measures were selected by the entities taking responsibility for their implementation. Control actions are regulatory activities, such as monitoring *E. coli* bacterial concentrations in WWTF effluent. The control actions in the plan fall into two regulatory groups: (1) those activities of small MS4 entities under a TPDES general permit; and (2) wastewater treatment facility monitoring and reporting under individual TPDES permits.

Adaptive Implementation

This revised I-Plan will be implemented using adaptive management, wherein measures are periodically assessed for efficiency and effectiveness. The iterative process to evaluate and adjust the management measures and control actions in the I-Plan will ensure continuing progress toward achieving water quality goals, and shows a commitment to improving water quality. Existing management measures may be adjusted or eliminated by the entities responsible for their implementation after assessment of progress using a schedule of implementation, interim milestones, water quality data, and changed circumstances. Control actions will be adjusted based on changes in the regulatory actions that form their basis, including additional or reduced actions needed to comply with permitting.

Management Measures

1.0: Riparian Zone Restoration and Protection

- 1.1 Grow Zones
- 1.2 Protect Riparian Areas from New Development
- 1.3 Creekside Conservation Program
- 2.0: Wastewater Infrastructure Maintenance
 - 2.1 OSSF Regulation
 - 2.2 Inspect and Repair Sewer Lines
 - 2.3 Sanitary Sewer Overflow Response
 - 2.4 Private Lateral Inspection

3.0: Domestic Pet Waste

3.1 Citywide Scoop the Poop Campaign

3.2 Pet Waste Signage at Parks

- 4.0: Stormwater Treatment
 - 4.1 New Stormwater Controls on Public Lands
 - 4.2 Inspect Existing City-Owned and Commercial Stormwater Controls

4.3 Perform Dry Weather Screening

Control Actions

- 1: Small MS4 Compliance with Stormwater Management Plan (SWMP) Requirements
- 2: Monitor and Report E. coli Concentrations from WWTF Effluent

Management Measures and Control Actions in the Revised I-Plan

Management Measure 1.0: Riparian Zone Restoration and Protection

As a result of an expanding and increasingly urbanized metropolitan area, the riparian vegetation communities of Austin-area streams continue to transform further from their natural state (Duncan et al. 2011). Riparian systems provide a suite of ecosystem services including stabilized stream banks, diverse animal assemblages, and groundwater recharge (Richardson et al. 2007) in addition to providing a range of water quality benefits to streams (Mayer et al. 2005, Meyer et al. 2007), including reduction of bacteria concentrations through stormwater filtration, dilution, and reduction of suspended sediments (Casteel et al. 2005, Lee et al. 2003, Meals 2001, Young et al. 1980).

Through decades of urban development with limited protective setbacks from riparian areas and inappropriate maintenance practices, riparian buffers on public and private lands have been severely degraded throughout the entire region. In Austin, increased urbanization represented by the percent impervious cover within the watershed is related to changes in hydrology resulting in shifts in vegetation composition (Sung et al. 2011), and impervious cover within riparian zones has been directly related to bacteria concentrations in streams (Porras et al. 2013).

The more degraded an ecosystem, the more fundamentally altered the basic services will become (Hobbs and Cramer 2008). The reduction or elimination of activities causing the degradation or prevention of natural recovery may be all that is necessary to restore riparian function and improve water quality (Kauffman et al. 1997, Richardson et al. 2007), although more active restoration efforts may be necessary to restore ecological function when environmental disturbance is extreme (Hobbs and Prach 2008).

Natural riparian buffer areas have been shown to reduce instream *E. coli* bacteria concentrations when stormwater runoff is diverted through buffers prior to discharge into the receiving water (Casteel et al. 2005). Vegetative filter strips have been demonstrated to reduce fecal coliform bacteria by 69 percent in feedlot runoff (Young et al. 1980). Stream bank restoration, livestock exclusion, and riparian restoration were demonstrated to reduce *E. coli* bacteria concentrations in Missiquoi River tributaries in Vermont by 49 to 52 percent between treatment and control watersheds (Meals 2001). The restoration and enhancement of functional riparian buffers along Austin area streams is a primary strategy the City of Austin Watershed Protection Department is implementing through a combination of targeted restoration and regulatory actions to reduce *E. coli* bacteria concentrations citywide.

1.1 Grow Zones

There are 11 City of Austin parks within the Gilleland Creek watershed. As part of this revised I-Plan, the City of Austin will evaluate the feasibility of increasing the number of parks in the Gilleland Creek watershed with "Grow Zones" riparian restoration projects. The purpose of the Grow Zone program is to restore riparian zone function along stream corridors in parks that have historically been degraded due to maintenance practices, like mowing, and overuse by park users (www.austintexas.gov/blog/grow-zones).

For Grow Zone project areas, the City of Austin has established buffer areas along both banks of a creek, for which passive plant growth is allowed without regular mowing. Grow Zones are typically 25 feet in width to allow for compatibility with other park uses in a limited space, although fully functional riparian zones may need to be 300 feet in width or wider (Duncan et al. 2012). Change over time is monitored by City of Austin staff (Richter and Duncan 2012), and adaptive management is applied when necessary, including coordination of periodic trash removal, invasive vegetation management, or native vegetative planting. Educational signage is installed to demarcate efforts and inform the public that the initial growth stages are intentional modifications in park land management by the City of Austin.

This management measure will be implemented by the City of Austin Watershed Protection Department in collaboration with the City of Austin Parks and Recreation Department. Through this strategy, the City of Austin will evaluate adding new Grow Zones in parks within the Gilleland Creek watershed over the

five-year time frame of this revised I-Plan. The primary action this strategy uses to reduce fecal bacteria loads to streams is to enhance the density, diversity, and health of riparian vegetation and soil by reducing destructive maintenance, managing vegetation succession, and enhancing soil carbon and nutrient dynamics (Duncan et al. 2011; Duncan 2012; Richter and Duncan 2012; Wagner 2013; Williams et al. 2013).

This effort is primarily managed by the City of Austin, but also utilizes a range of local and regional stakeholders including neighborhood associations, adopta-park groups, adopt-a-creek groups, the Austin Parks Foundation, Keep Austin Beautiful, Tree Folks, and others. These groups assist with tree planting, invasive species control, litter pick-up, and educational efforts, which are all critical to both water quality improvement and public acceptance of the change in maintenance practices. The Grow Zone program has the ability to reduce any source of fecal bacteria in park areas including fecal bacteria from pet waste, wastewater, human waste, and wildlife, as long as stormwater is directed through the vegetated buffer areas. The Grow Zone program approach is very efficient as it is primarily a passive, managed succession strategy that requires little maintenance or inputs, and reduces mowing and staff time relative to historic active maintenance practices.

| (1) Management Measure | Implement Grow Zones in parks where feasible. |
|---|---|
| (2) Best Management Practice | Enhance riparian area plant abundance and diversity to improve stormwater infiltration and removal of fecal contamination. |
| (3) Area of Emphasis | Eleven City of Austin parks within the affected watershed and its tributaries. |
| (4) Education Target | Individual neighborhood groups, park users, and residents in proximity to new Grow Zone initiative parks may receive direct outreach. In addition, citywide educational efforts including website and pamphlet distribution at area garden stores on benefits and appropriate management of riparian zones will be maintained. |
| (5) Schedule of Implementation | Evaluate feasibility and develop schedule of implementation (if feasible) in Year 1. Implement Grow Zones in Years 2-5 as feasible. |
| (6) Interim, Measurable Milestones | Percent of feasible Grow Zones implemented. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed. Increased riparian zone plant abundance and diversity to improve stormwater infiltration and removal of fecal contamination. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department staff will perform annual inspections of Grow Zone areas. City of Austin Parks and Recreation Department staff will report problems to Watershed Protection during regular maintenance visits. |
| (9) Responsible Organizations | City of Austin Watershed Protection Department and City of Austin Parks and Recreation Department. |

Table 2. Management Measure 1.1 - Grow Zones

1.2 Protect Riparian Areas from New Development

The City of Austin is a home-rule city that derives its land use control and development authority from the Texas Constitution as articulated in the City of Austin Charter. The City of Austin protects water quality through the Land Development Code which governs zoning, subdivision, and the construction process. City of Austin water quality ordinances have evolved over time (http://www.austintexas.gov/page/watershed-protection-ordinance).

In 2013, the City of Austin adopted phase 1 of a new watershed protection ordinance that will improve creek and floodplain protection, including critical headwater areas, to protect water quality and reduce erosion, flooding, and long-range infrastructure maintenance costs

(http://www.austintexas.gov/department/watershed-protection-ordinance). The new watershed protection ordinance seeks not only to encourage land development patterns that provide improved preservation of floodplains and creeks, but also simplifies development regulations where possible to minimize the impact of changes on the ability to develop private land.

The Watershed Protection Ordinance now protects stream buffers in smaller headwater streams. Under previous city code, a 320-acre minimum drainage area was required before protections were in place. The current code protects drainage areas of 64 acres or more. The 2013 ordinance effectively protects riparian buffer areas along streams from modification by future development, reducing an increase in future fecal bacteria loading. In Austin, commercial and residential areas have higher measured stormwater runoff concentrations of E. coli (with 24,111 most probable number (MPN)/100 mL for commercial; 38,592 MPN/100mL for residential) than undeveloped land (with 9,291 MPN/100 mL).⁴ Functional riparian buffers are assumed to have a 49 percent removal efficiency for *E. coli* bacteria from stormwater runoff (Meals 2001). The 2013 ordinance primarily affects new subdivision development. As part of this revised I-Plan, the City of Austin will continue to implement phase 1 of the Watershed Protection Ordinance and the amount of riparian buffer protected from new development will be tracked and reported annually as a measurable milestone of this revised I-Plan.

⁴ MPN is a method used to estimate the concentration of viable microorganisms in a sample.

| (1) Management Measure | Protect riparian areas from new development. |
|---|--|
| (2) Best Management Practice | Protect existing riparian area plant abundance and diversity from new development by establishing buffers to maintain existing stormwater infiltration and removal of fecal contamination. |
| (3) Area of Emphasis | Subdivision and commercial development near riparian areas within the City of Austin full purpose and extra-territorial jurisdiction. |
| (4) Education Target | Continue citywide education about benefits of functional riparian zone. |
| (5) Schedule of Implementation | Implemented through the City of Austin site development permit application review process as new development occurs. |
| (6) Interim, Measurable Milestones | Linear feet of protected riparian zone buffer |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed. Maintenance of existing riparian zone plant abundance and diversity to improve stormwater infiltration and removal of fecal contamination. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin site development permit records will be tracked through existing processes. |
| (9) Responsible Organizations | City of Austin Watershed Protection Department and City of Austin Development Services Department. |

Table 3. Management Measure 1.2 - Protect Riparian Areas from New Development

1.3 Creekside Conservation Program

Since 1990, the LCRA's Creekside Conservation Program has promoted the reduction of soil erosion and nonpoint source pollution by offering a cost sharing incentive to private landowners within the lower Colorado River watershed. The program offers both technical and financial assistance to implement BMPs and place private property under conservation management plans.

Conservation plans are developed by the NRCS in collaboration with local soil and water conservation districts and encompass the entire land unit to address soil and water conservation concerns. All BMPs implemented through the conservation plans are subject to NRCS technical standards and include, but are not limited to, cross fencing, slope stabilization, vegetative buffers, range seeding, alternative water source development, and rotational grazing of livestock. Participants may be reimbursed up to 50 percent of their preapproved project cost, and are eligible to receive a maximum cost-share amount up to \$20,000. While not required for participation in the Creekside Program, landowners are encouraged to obtain a Water Quality Management Plan certified by the TSSWCB.

The Creekside Conservation Program is currently supported by a federal Clean Water Act Section 319(h) nonpoint source grant through the TSSWCB. Since 2004, a series of grants has provided funding for LCRA to offer this assistance throughout LCRA's statutory district. Through the program, the LCRA prioritizes areas along or within the watershed of impaired water bodies, including a specific priority area for Gilleland Creek.

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| (1) Management Measure | Implementation of the LCRA Creekside Conservation Program. |
|---|--|
| (2) Best Management Practice | BMPs implemented through the program include, but are not limited to cross fencing, brush management, range seeding, alternative water source development, and rotational grazing of livestock. Participants may be reimbursed up to 50 percent of their pre-approved project cost, and are eligible to receive a maximum cost-share amount up to \$20,000. All BMPs are subject to NRCS technical standards and guidelines. |
| (3) Area of Emphasis | The 11 county project region of the Lower Colorado River Basin, to specifically include the priority area of the Gilleland Creek watershed. |
| (4) Education Target | Private property owners within the Creekside Conservation Program's project region, including landowners within the Gilleland Creek watershed. |
| (5) Schedule of Implementation | Interested landowners contact the Creekside program's project coordinator or the local NRCS office to develop a conservation plan. LCRA, NRCS, and the relevant soil and water conservation districts evaluate the project and select landowners eligible for cost sharing assistance. The Conservation Plan is approved and implemented on the participating landowners' property in accordance with NRCS standards and guidelines. Once the project is completed, the landowner is reimbursed accordingly. |
| (6) Interim, Measurable Milestones | Tracking the number of landowner conservation plans developed; tracking the amount of cost-share assistance used to implement specific BMPs; measuring the amount of acres placed under conservation plans; calculating NPS pollutant load reduction based on completion of BMPs; and recording the number of people participating in Field Day(s). |
| (7) Progress Indicators | Landowners participating in the program; successful implementation of BMPs within the Gilleland Creek watershed; landowners attending educational field days; and reduction in <i>E. coli</i> concentrations in the affected watershed. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). |
| (9) Responsible Organizations | The LCRA Creekside Conservation Program's project coordinator, TSSWCB, NRCS, soil and water conservation districts, and participating landowners. |

Table 4. Management Measure 1.3 - LCRA Creekside Conservation Program

Management Measure 2.0: Wastewater Infrastructure Maintenance

2.1 OSSF Regulation

The City of Austin regulates OSSFs generating less than 5,000 gallons of wastewater per day. The City of Austin is an Authorized Agent of the TCEQ and Austin Water is a Designated Representative to administer the program. The program falls primarily under the authority of the TCEQ rules contained within Texas Administrative Code (TAC), Title 30, Chapter 285 (On-Site Sewage Facilities) (30 TAC 285). Additional regulatory authority is derived from Texas Health and Safety Code, Chapter 341 (Minimum Standards of Sanitation and Health Protection Measures) and Chapter 366 (On-Site Sewage Disposal Systems). The Austin City Ordinance No. 990211-E and the Austin City Code, Chapter15-5, adopt the current 30 TAC 285 as its local rule.

OSSF effluent may contain human pathogenic bacteria or viruses (Hagedorn 1984, Corapcioglu et al. 1997). According to EPA, properly designed, sited, and maintained OSSFs are not likely to be sources of fecal contamination to surface water and are a cost-effective long-term option for waste disposal that meet public health and water quality goals (EPA 1997). Failing or improperly managed OSSFs may pose a threat to water quality and public safety as nonpoint sources of pollution (Alhajjar et al. 1990, EPA 2005). Fecal contamination from OSSFs is of additional concern as the typical treatment mechanisms may result in inherent selection for environmental persistence of fecal bacteria (Gordon et al. 2002). Case studies in Florida have documented chronic fecal indicator bacteria levels exceeding contact recreation standards in waters impacted by failing OSSFs (Propst et al. 2011).

As part of this revised I-Plan, and consistent with current City of Austin regulations, any property owner that has a failing or substantially modified OSSF will have to properly abandon the OSSF and connect their property to a centralized wastewater collection line when one is available within 100 feet of the property. The number of cutovers to centralized wastewater collection within the Gilleland Creek watershed will be reported annually. Austin Water will continue to support Austin City Council policies, waiving wastewater capital recovery fees (approximately \$2,000 per connection) after full purpose annexation as an incentive to abandon existing OSSFs and connect to the City of Austin-owned centralized wastewater collection system as new wastewater mains become available in recently annexed areas. The City of Austin will continue to promote the 3-1-1 call system and the 512-974-2550 Environmental Hotline for reporting potential wastewater problems, so that failing OSSFs may be identified.

| Table 5. Management Measure 2.1 - OSSF Reg | gulation |
|--|----------|
|--|----------|

| (1) Management Measure | Continue to require failing OSSFs located within 100 feet of City of Austin centralized wastewater collection lines to cut over and properly abandon the OSSF. Continue to support the existing policy waiving wastewater capital recovery fees for a two-year period after annexation as an incentive to abandon existing OSSFs and connect to the Austin wastewater collection system as new wastewater mains become available in recently annexed areas. |
|---|---|
| (2) Best Management Practice | Reduce fecal contamination from failing OSSFs through regulation. |
| (3) Area of Emphasis | OSSFs within the affected watershed and within the City of Austin full purpose jurisdiction or limited purpose jurisdiction for health and safety. |
| (4) Education Target | Continue to promote cutover for functioning systems to Austin wastewater collection system. Continue to promote 3-1-1 and the Environmental Hotline to report potential wastewater issues. Continue OSSF education efforts as needed. |
| (5) Schedule of Implementation | Implemented when opportunities arise as full purpose annexation occurs, or when an OSSF fails or does not meet Austin capacity requirements and Austin wastewater collection mains are located within 100 feet of the property. |
| (6) Interim, Measurable Milestones | Number of OSSFs cutovers to Austin wastewater collection system per year. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; removal of failing or aging OSSFs. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin – Austin Water OSSF permit records will be tracked through existing processes. |
| (9) Responsible Organization | City of Austin - Austin Water. |

2.2 Inspect and Repair Sewer Lines

Austin Water maintains centralized wastewater collection lines and wastewater treatment plants for the City of Austin. Damage due to root penetration, corrosion, exposure of wastewater lines in creek channels from bank erosion, and aging may lead to release of raw sewage from the collection system. Leaking sanitary sewer lines may be a source of fecal contamination to receiving waters, resulting in instream bacteria concentrations in excess of contact recreation standards during non-storm conditions (Propst et al. 2011). Defective wastewater infrastructure also allows for infiltration of rainwater into the collection system, potentially compromising treatment plant operations or leading to sanitary sewer overflows (Metcalf and Eddy, Inc. 1979).

Austin Water personnel and private contractors perform closed-circuit television (TV) inspection and cleaning of the wastewater collection system piping. The inspection is part of a preventative maintenance program to minimize sanitary sewer overflows by repairing or replacing defective piping that may impact water quality or wastewater system reliability. Defects that are observed in the wastewater piping are recorded in a database and prioritized for repair.

Inspection is conducted on approximately 2.5 million feet of wastewater lines per year citywide, representing approximately 12.5 percent of the total system length. Rehabilitation projects are conducted on approximately 40,000 to 50,000 feet of wastewater lines per year citywide to prevent sanitary sewer overflows and infiltration and inflow of rainwater. Rehabilitation projects are prioritized based on overall condition and criticality of the line.

As part of this revised I-Plan, Austin Water will identify the length of wastewater lines inspected within the affected watershed, the number of problems identified and corrected with spot repairs, and the length of wastewater lines replaced or upgraded annually. This strategy will reduce the frequency of sanitary sewer overflows and reduce the probability of sewage leaking from the collection system. Infrastructure inspection not only identifies active failures resulting in loss of raw sewage to the environment, but also proactively identifies failures that have not yet occurred but are likely to occur in the future. The rate of occurrence and size of active and potential failures is highly variable over time and space, and is dependent on the age of infrastructure, pipe material, and surrounding conditions. Both active and potential infrastructure failures will be addressed by this measure. Because of the high concentration of *E. coli* in raw wastewater, with examples ranging from 0.006 billion MPN/100 mL (Sobsev et al. 1998) to 0.028 billion MPN/100 mL (Olańczuk-Neyman et al. 2001), raw wastewater can have substantial impacts on receiving water fecal bacteria concentrations.

| (1) Management Measure | Inspect wastewater infrastructure in the affected watershed and prioritize repairs as problems are encountered based on overall condition and criticality. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from failing wastewater infrastructure and prevent fecal contamination by proactively maintaining wastewater infrastructure. |
| (3) Area of Emphasis | City of Austin wastewater service area within the affected watershed. |
| (4) Education Target | Continue citywide public education efforts to reduce potential for sanitary sewer overflows with campaigns like "Ban the Blob." Continue promotion of Austin environmental hotline and 3-1-1 for citizens to report wastewater overflows. |
| (5) Schedule of Implementation | Consistent with existing citywide wastewater system maintenance schedule. |
| (6) Interim, Measurable Milestones | Number of feet of wastewater lines inspected. Number of problems encountered and repaired (spot repairs). Number of feet of wastewater mains replaced/upgraded in affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; repairs of failing wastewater infrastructure made. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin – Austin Water system maintenance tracked through existing processes. |
| (9) Responsible Organization | City of Austin – Austin Water. |

Table 6. Management Measure 2.2 - Inspect and Repair Sewer Lines

2.3 Sanitary Sewer Overflow Response

Sanitary sewer overflows (SSOs) occur when equipment failures, blockages, breaking, or inflow and infiltration of rainwater or groundwater that overwhelms the capacity of wastewater lines cause a release of sewage from the wastewater collection system (EPA 2004). Fecal contamination of receiving waters from SSOs may contribute to fecal bacteria levels in excess of contact recreation standards (EPA 2004).

The City of Austin responds to SSOs. Austin Water personnel are on duty or on call 24 hours a day, 7 days a week, to respond to SSOs. The objective of the Austin Water response program is to arrive at the source of the wastewater emergency within one hour of receiving the call and to control the overflow as soon as possible by starting wastewater bypass pumping systems, locating and eliminating the cause of the interrupted wastewater service, and recovering or disinfecting spilled wastewater as soon as possible. Austin Water personnel have equipment and staff to control most wastewater emergencies, but may also utilize private contractors for pumping and hauling wastewater as needed.

The City of Austin Watershed Protection Department receives notification from Austin Water of all SSO events. Watershed Protection Department personnel investigate any SSO greater than 50 gallons, as well as any SSO that may affect a storm sewer or water body, to ensure impacts to receiving waters are minimized. Watershed Protection Department personnel also directly investigate citizen complaints of polluting discharges, and report to Austin Water if illicit sanitary sewer connections to the storm drain system are detected or if SSOs are observed. The City of Austin will remediate if the SSO is from a privately owned system and the private entity cannot or will not remediate. The City of Austin, through various departments, will require repairs of private wastewater infrastructure if failures are clearly documented.

As part of this revised I-Plan, the City of Austin will continue to promote the use of the 3-1-1 call system and the 24-hour 512-974-2550 environmental hotline to provide for citizen reporting of SSOs. The City of Austin will continue public education efforts to reduce the likelihood of SSOs with educational campaigns like the Ban the Blob initiative (<u>http://www.austintexas.gov/greaseblob</u>) to reduce disposal of grease into the sanitary sewers.

As part of this revised I-Plan, the City of Austin will track the number of SSOs that occur within the Gilleland Creek watershed and the volume of sewage recovered from SSOs annually. By recovering wastewater from SSOs, the City of Austin will reduce the fecal bacteria load to the affected watershed from SSOs.

| (1) Management Measure | Respond to SSOs in affected watershed and remove sewage from creeks during overflow events when feasible. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from failing wastewater infrastructure. |
| (3) Area of Emphasis | City of Austin wastewater service area within the affected watershed. |
| (4) Education Target | Continue citywide public education efforts to reduce potential for sanitary sewer overflows with campaigns like "Ban the Blob." Continue promotion of Austin environmental hotline and 3-1-1 for citizens to report wastewater overflows. |
| (5) Schedule of Implementation | City of Austin Water will investigate and remediate SSOs in the affected watershed as they are discovered. |
| (6) Interim, Measurable Milestones | Volume of wastewater recovered after SSO events in the affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; removal of sewage from SSOs. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin – Austin Water responses will be tracked through existing processes. |
| (9) Responsible Organization | City of Austin – Austin Water. |

Table 7. Management Measure 2.3 - Sanitary Sewer Overflow Response

2.4 Private Lateral Inspection

A private lateral is the wastewater line that connects a building to the City of Austin centralized wastewater collection system. Private laterals are not owned by the City of Austin. Failures in private sewer infrastructure are known sources of fecal contamination, and may not be directly observed by routine inspection of publicly-owned infrastructure (Propst et al. 2011).

Austin Water performs investigations of private laterals for City of Austin retail wastewater customers when there is a wastewater overflow on private property or when there is a problem with the City of Austin wastewater system that could affect a private lateral (<u>www.austintexas.gov/department/private-lateral-program</u>).

The City of Austin private lateral program exists to ensure defective private wastewater lines are repaired to reduce the chance of wastewater overflows and so that inflow and infiltration of rainwater into the centralized wastewater collection system are reduced. This subsequently decreases wastewater overflow incidents and reduces fecal contamination of area water bodies. Austin Water personnel respond to wastewater trouble calls from citizens who experience or witness wastewater overflows, backups, or stoppages. As part of the response, Austin Water crews perform an assessment of the city-owned portion of the collection system as well as the private sewer lateral inside the customer's property. In addition to identifying and repairing defects in the cityowned sewer service line or sewer main, Austin Water communicates with the property owner if the private sewer lateral needs to be repaired.

Under the City of Austin Private Lateral Ordinance, enforcement action may be taken to encourage the property owner to repair the defective private lateral. An Austin Water grant program is available to fund repairs for qualified property owners with incomes equal to or less than 80 percent of the Austin median family income amount. The City of Austin Watershed Protection Department receives notification from Austin Water of all sewage spills from private lateral failures, and investigates any incident resulting in more than 50 gallons of sewage being spilled or any sewage spill which may affect a storm sewer or water body. Watershed Protection Department personnel also directly investigate citizen complaints of polluting discharges, and report to Austin Water if illicit sanitary sewer connections to the storm drain system are detected or if failing private lateral wastewater lines are suspected.

As part of this revised I-Plan, the City of Austin will continue to jet clean and conduct televised inspections of private laterals initiated by private lateral backups, stoppage, or overflows at no additional charge to the affected customers. The City of Austin will continue to repair city wastewater infrastructure. When problems are identified in private lateral lines, the City of Austin will continue to enforce legal requirements on property owners to ensure the proper repair of the private lateral. The City of Austin will initiate a

program to place liens on properties in which a private lateral failure has been identified and verified when, after municipal court action, the private lateral repair has not been completed. The City of Austin will contract for the repairs to such private laterals and place a lien on the properties for the actual cost of repair plus administrative and interest-related expenses. The City of Austin will annually report the number of private lateral failures identified and the number of liens placed on private properties in the affected watershed.

| (1) Management Measure | Continue to jet clean and conduct TV inspections of private laterals initiated by private lateral backups, stoppage, or overflows at no additional charge to the affected customers. Continue to repair city infrastructure before customers are required to fix their private lateral. Continue to enforce legal requirements on property owners with verified private lateral failures to ensure the proper repair of the private lateral. |
|---|---|
| (2) Best Management Practice | Reduce fecal contamination from failing wastewater infrastructure. |
| (3) Area of Emphasis | City of Austin wastewater service area within the affected watershed. |
| (4) Education Target | Continue citywide public education efforts to reduce potential for sanitary sewer overflows with campaigns like "Ban the Blob." Continue promotion of Austin environmental hotline and 3-1-1 for citizens to report wastewater overflows. |
| (5) Schedule of Implementation | The jet cleaning and TV inspection of private laterals will continue as problems are reported. |
| (6) Interim, Measurable Milestones | City of Austin – Austin Water will track the number of private lateral failures identified per year in the affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin - Austin Water responses will be tracked through existing processes. |
| (9) Responsible Organization | City of Austin – Austin Water. |

Table 8. Management Measure 2.4 - Private Lateral Inspection

Management Measure 3.0: Domestic Pet Waste

Domestic pets like dogs and cats can be a source of fecal pathogen contamination to natural waters (EPA 2001; TCEQ 2010). Genetic analysis of urban runoff to a reservoir in New York estimated that 95 percent of fecal coliform bacteria found in urban stormwater was of non-human origin (Alderiso et al. 1996). TMDL analyses in Maryland found domestic pet contributions to fecal bacteria loads ranged from 12 to 33 percent, while wildlife contributions ranged from 4 to 52 percent (Dalmasy et al. 2007). A bacteria source tracking study for an urban watershed in Seattle estimated that 20 percent of fecal bacteria in runoff originated from dogs (Samadpour and Checkowitz 1998). As much as 22 percent of the fecal load from contributing watersheds to the Peconic Estuary was derived from dogs (Cameron Engineering & Associates 2012). A dog off-leash area immediately adjacent to Bull Creek in Austin likely contributed to elevated levels of fecal bacteria in a popular swimming area (City of Austin 2011). Cats may have contributed to fecal contamination of a Florida creek (PBS&J 2010).

One gram of dog waste contains an estimated 23 million fecal coliform bacteria (van der Wel 1995), and on average domestic dogs excrete 340 grams of feces daily (USDA 2005). The number of domestic animals in Austin may be estimated by combining human and animal census estimates (Herrington et al. 2010). Based on national averages, it may be assumed that 37.2 percent of households have dogs and 32.4 percent of households have cats (AVMA 2007). The 2010 U.S. Census estimates that there are 354,241 housing units in Austin. Households with dogs were assumed to have 1.7 dogs, and households with cats were assumed to have 2.2 cats (AVMA 2007). Based on these assumptions in combination with U.S. Census results from Austin, there are approximately 224,000 dogs in Austin generating 76,000 kilograms of fecal waste or 1.75 x 1015 cfu of *E. coli* daily. This estimated fecal loading rate is consistent with the 4 billion cfu *E. coli* per dog per day derived from a study of the Peconic Estuary (Cameron Engineering & Associates 2012).

By Austin City Code 3-4-6, it is a Class C misdemeanor punishable by a fine up to \$500 for not promptly and sanitarily disposing of dog or cat feces on private or public property other than property owned by the handler or owner of the dog. A Chesapeake Bay study found that 41 percent of dog walkers did not pick up dog waste (Swann 1999). Public education is an effective tool at reducing the fecal bacteria contamination from domestic pets. There was a 31 percent increase in the number of respondents who believed that uncollected dog waste was a potential water quality problem after a public education campaign at a metropolitan park in Austin, with 60 percent of respondents claiming to pick up dog waste more frequently than before the education campaign (City of Austin 2011).

3.1 Citywide "Scoop the Poop" Campaign

As part of this revised I-Plan, the City of Austin will continue public education efforts to reduce fecal contamination from domestic dogs. Public education is an effective tool to reduce fecal contamination from domestic animals (City of Austin 2011). The City of Austin will continue "Scoop the Poop" citywide education efforts annually (<u>http://www.austintexas.gov/department/scoop-the-poop</u>).

Previous education activities conducted for "Scoop the Poop" include radio and television public service announcements, social media outreach, giveaways at public events, public art, print media ads, brochures, partnerships with animal-focused non-profit organizations, and a wide variety of signage. Citywide campaign efforts will be summarized and reported annually as an interim milestone of this revised I-Plan.

| (1) Management Measure | Continue citywide domestic pet waste collection public education efforts. |
|---|---|
| (2) Best Management Practice | Reduce fecal contamination from domestic pet waste through education. |
| (3) Area of Emphasis | Austin metropolitan area. |
| (4) Education Target | Dog and cat owners. |
| (5) Schedule of Implementation | Ongoing citywide public education efforts will continue through the implementation period. |
| (6) Interim, Measurable Milestones | Summary of citywide outreach campaign activities per year. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department will track outreach campaign activities. |
| (9) Responsible Organization | City of Austin Watershed Protection Department. |

3.2 Domestic Waste Signage and Pet Waste Collection Bags at Parks

The City of Austin Watershed Protection Department has purchased and cooperated with the City of Austin Parks and Recreation Department to install 850 dispensers of pet waste collection bags in Austin parks citywide. The dispensers are maintained by Parks and Recreation Department staff during routine park maintenance visits. The Watershed Protection Department purchases more than 1,500,000 disposable bags annually for use in the dispensers at no charge to park users. Making disposable bags available to park users at no charge is intended to be an incentive for the proper collection and disposal of dog waste in city parks.

As part of this revised I-Plan, the City of Austin will continue to make pet waste collection bags available at no charge in Austin parks. The City of Austin will identify which, if any, of the 11 parks in the Gilleland Creek watersheds do not currently have pet waste disposal signage and pet waste bag dispensers. There is currently no centralized inventory of where pet waste bag dispensers have been installed to date. Over the five-year time frame of this revised I-Plan, the City of Austin will install and maintain pet waste bag dispensers in parks in the Gilleland Creek watershed where appropriate. The number of parks with signs and dispensers installed will be tracked and reported annually as a measurable milestone of this revised I-Plan.

Table 10. Management Measure 3.2 - Domestic Waste Signage and Pet WasteCollection Bags at Parks

| (1) Management Measure | The City of Austin will identify which, if any, of the 11 parks in the Gilleland Creek watershed do not currently have pet waste disposal signage and pet waste bag dispensers and add dispensers and signage where appropriate. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from domestic pet waste through signage at city parks. |
| (3) Area of Emphasis | Eleven City of Austin parks within the affected watershed. |
| (4) Education Target | Park users with domestic pets. |
| (5) Schedule of Implementation | Feasibility in the 11 parks will be evaluated and an implementation schedule developed in Year 1. Signage and dispensers will be added where appropriate in Years 2-5. |
| (6) Interim, Measurable Milestones | Number of parks with signage and dispensers added per year. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department will track signage installation. |
| (9) Responsible Organization | City of Austin Watershed Protection Department. |

Management Measure 4.0: Stormwater Treatment

Stormwater runoff is the dominant mechanism by which nonpoint source fecal loads are transported to receiving waters. Management of stormwater to reduce bacteria can be achieved with non-structural BMPs like riparian zone enhancement or preservation (see Management Measure 1.0), or with structural control measures like sedimentation/filtration basins. Fecal bacteria are strongly associated with stream sediment (Byappanahalli and Ishii 2011), and removal of sediment from stormwater runoff may reduce bacteria loads. Stormwater structural control BMP effectiveness for bacteria removal is variable depending in part on retention time and mechanism of treatment.

4.1 New Stormwater Controls on Public Lands

The City of Austin Watershed Protection Department is a fee-funded municipal drainage utility. Approximately \$2 million in departmental Capital Improvement Project funds are appropriated annually for water quality protection projects, including structural stormwater treatment facilities. The Watershed Protection Department regularly identifies opportunities for retrofitting existing stormwater control measures to enhance performance or construct new stormwater control measures on public lands. Common stormwater structural control measures in Austin include sedimentation/filtration basins, wet ponds, and retention/irrigation systems, although newer innovative methods including infiltration and biofiltration methods are constructed with increasing frequency.

As prescribed in the Watershed Protection Department Master Plan (http://www.austintexas.gov/department/watershed-protection-master-plan), the Watershed Protection Department initially identifies and prioritizes areas in which to evaluate structural control measure retrofits or additions based on need determined by field sampling data collected under the Environmental Integrity Index (EII) program

(http://www.austintexas.gov/department/environmental-integrity-index). The EII includes biennial sampling of 122 reaches across 49 watersheds in Austin for a range of water quality, sediment quality, physical integrity, and biological metrics. For problem areas, further evaluation considers feasibility and costbenefit in determining which sites will be targeted for structural control measure retrofit or additional activities by the City of Austin. The typical life cycle for watershed protection stormwater capital improvement projects, once a location has been identified, consists of a preliminary engineering review with hydraulic analyses, design, permitting, construction, and maintenance.

As part of this revised I-Plan, the City of Austin will investigate additional opportunities on public lands within the Gilleland Creek watershed for retrofitting any existing stormwater control measures to enhance bacteria

removal, or constructing new stormwater control measures to serve a previously untreated drainage area. Identified opportunities will follow the existing citywide prioritization process for stormwater projects. If an opportunity is found and prioritized, the new or retrofit stormwater control measure will follow the typical project life cycle of preliminary engineering review, design, construction, and maintenance with completion of each phase being the measurable milestone reported annually.

| (1) Management Measure | The City of Austin will identify and implement stormwater quality structural control retrofits or new installations on public lands within the affected watershed using capital improvement project funds based on citywide prioritization. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from nonpoint pollution sources utilizing structural control measures to treat stormwater runoff. |
| (3) Area of Emphasis | City of Austin full purpose jurisdiction within the affected watershed. |
| (4) Education Target | Continue citywide education efforts about good housekeeping measures to reduce bacteria loads in stormwater runoff. |
| (5) Schedule of Implementation | Water quality problem areas will be assessed and prioritized based on problem severity on a citywide basis annually. If the affected watershed ranks high in problem severity, opportunities for stormwater structural control installations or retrofits will be investigated. If opportunities exist, an implementation schedule will be developed based on cost and available funding. |
| (6) Interim, Measurable Milestones | Annual water quality problem severity for stormwater structural control additions of the affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; number of project opportunities identified. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department will track problem severity and project opportunities. |
| (9) Responsible Organization | City of Austin Watershed Protection Department. |

4.2 Inspect City-Owned and Commercial Stormwater Controls

Consistent with the City of Austin TPDES MS4 stormwater discharge permit, the City of Austin Watershed Protection Department routinely inspects structural stormwater control measures within its full-purpose jurisdiction and extraterritorial jurisdiction to reduce stormwater pollutant loads. Stormwater structural controls may reduce bacteria concentrations in stormwater runoff.

Routine inspection and maintenance to correct problems are necessary to maintain structural control effectiveness over time. Watershed Protection Department field inspections of stormwater control measures include checks for sediment build-up, structural integrity, erosion, blockage of the inlet, blockage of the outlet, functioning riser pipe, trash rack, presence of excessive trash, and excessive vegetation growth impairing function.

Problems observed for City of Austin owned facilities are addressed by City of Austin field operations staff. If maintenance issues are identified for residential or commercial facilities not owned by the City of Austin, a notice of violation is issued to the responsible party by City of Austin field operations staff and corrective action is taken to ensure continued functionality and compliance with city code. Commercial facilities are inspected once every 3 years. Residential and city-owned facilities are inspected annually.

Complaints are received by City of Austin through the 3-1-1 call system. Complaint calls about structural control measures are investigated by field staff within several days of receiving notification, and appropriate corrective action is taken as needed.

As part of this revised I-Plan, the number of structural control measures inspected within the Gilleland Creek watershed will be reported annually.

| (1) Management Measure | The City of Austin will inspect existing City-owned and commercial stormwater quality controls in the affected watershed and repair problems or require repairs on a periodic basis. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from nonpoint pollution sources utilizing structural control measures to treat stormwater runoff. |
| (3) Area of Emphasis | City of Austin full purpose jurisdiction within the affected watershed. |
| (4) Education Target | Continue citywide education efforts about good housekeeping measures to reduce bacteria loads in stormwater runoff. |
| (5) Schedule of Implementation | Stormwater controls are inspected on a periodic basis based on a citywide schedule, or as problems are reported. |
| (6) Interim, Measurable Milestones | Number of stormwater structural controls inspected within the affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; number of problems identified and repaired. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department will track inspections. |
| (9) Responsible Organization | City of Austin Watershed Protection Department. |

Table 12. Management Measure 4.2 - Inspect City-Owned and Commercial
Stormwater Controls

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4.3 Perform Dry Weather Screening

The City of Austin Watershed Protection Department conducts dry weather screening of storm drain outfalls greater than or equal to 36 inches in diameter (or equivalent cross-sectional area for non-circular outfall structures). This activity is consistent with TPDES MS4 permit requirements related to illicit discharge detection and elimination, and is conducted following established protocols (Brown et al. 2004).

Dry weather screening consists of physical inspection of storm drain outfalls during periods without antecedent rainfall to identify outfalls discharging water when no stormwater runoff is expected. Dry weather screening is a means to identify and remediate illicit connections, potentially including sanitary sewer cross-connections, to the storm drain system and thereby reduce fecal contamination of waterways (Sercu et al. 2009).

When dry weather flow is found during inspection, the City of Austin Watershed Protection Department samples the flow for parameters to aid in source identification. If the source is determined to be non-natural, additional investigations are conducted to identify the source and appropriate corrective action is taken.

An individual outfall is typically inspected at least once every five years. To identify and reduce illicit cross-connections of sanitary sewers to the storm drain system, the City of Austin will inspect each storm drain outfall 36 inches in diameter or equivalent cross sectional area within the affected watershed at least once during the five-year period. The number of outfalls inspected within the affected watershed will be reported annually.

| (1) Management Measure | The City of Austin will perform dry weather screening of storm drain outfalls greater than 36 inches in the affected watershed on a periodic basis. |
|---|--|
| (2) Best Management Practice | Reduce fecal contamination from nonpoint pollution sources by identifying illicit connections to the storm drain system. |
| (3) Area of Emphasis | City of Austin full purpose jurisdiction within the affected watershed. |
| (4) Education Target | Continue citywide education efforts about good housekeeping measures to reduce bacteria loads in stormwater runoff. |
| (5) Schedule of Implementation | Storm drain outfalls in the affected watershed greater than 36 inches are inspected once every five years. |
| (6) Interim, Measurable Milestones | Number of outfalls inspected within the affected watershed. |
| (7) Progress Indicators | Reduction in <i>E. coli</i> concentrations in the affected watershed; number of outfalls with dry weather flows identified. |
| (8) Monitoring Component | Water quality monitoring will continue in the affected watershed through the Texas Clean Rivers Program (Austin, LCRA, TCEQ). City of Austin Watershed Protection Department will track inspections. |
| (9) Responsible Organization | City of Austin Watershed Protection Department. |

Table 13. Management Measure 4.3 - Perform Dry Weather Screening

Control Action 1: Small MS4 Compliance with SWMP Requirements

History

In *One TMDL for Bacteria in Gilleland Creek, Segment 1428C*, under the Implementation and Reasonable Assurances section, the TMDL states:

"The TMDL development process involves the preparation of two documents:

- 1) a TMDL, which determines the maximum amount of pollutant a water body can receive in a single day and still meet applicable water quality standards, and
- *2) an implementation plan (I-Plan), which is a detailed description and schedule of the regulatory and voluntary management measures necessary to achieve the pollutant reductions identified in the TMDL."*

The document further states that the I-Plan shall identify voluntary and regulatory actions which may include *"required modification to a Stormwater Management Program (SWMP)."*

After the EPA approved the TMDL, the stakeholder group developed the I-Plan for Gilleland Creek. The I-Plan defined six management measures (voluntary activities) and one control action (regulatory activity). The only control action was for WWTFs that, at the time, were the only regulated entities with permit requirements regarding the bacteria impairment.

Amid the I-Plan creation, the small MS4 entities were regulated by TPDES General Permit TXR040000, which spanned from August 2007 until December 2013. Stormwater discharges from MS4 jurisdictions are considered permitted or regulated nonpoint sources. The small MS4 SWMPs were already submitted and in progress. The original TPDES Small MS4 General Permit did not have prescriptive requirements regarding existing impairments or TMDLs; the only requirement was for the SWMPs to comply with existing TMDLs or I-Plans.

The original I-Plan addressed this overlapping period by including the following language:

"To the extent that the MS4 permittees are implementing their respective storm water management plans (SWMPs), their permits are considered consistent with the Gilleland Creek Bacteria TMDL and this I-Plan...Each permittee will implement its SWMP, as necessary, to target reductions in the waste load of bacteria from those portions of their MS4s that are located within the Gilleland Creek watershed."

Evolution to Control Actions

In December 2013, the TPDES Small MS4 General Permit was updated pursuant to EPA guidance to include specific language regarding impaired water bodies and TMDL requirements. The update required permittees with approved TMDLs to include information in their SWMPs and annual reports on implementing any targeted controls required to reduce the pollutant of concern. Specifically, the SWMP and annual report must address (1) Targeted Controls, (2) Measurable Goals, (3) Identification of Benchmarks, and (4) Annual Reports.

The updated MS4 permit also specified a list of BMPs required if the pollutant of concern is bacteria. All small MS4 entities that received coverage under the TPDES Small MS4 General Permit submit and report annually on a SWMP that addresses the following.

"The BMPs shall, as appropriate, address the following:

a. Sanitary Sewer Systems

- (i) Make improvements to sanitary sewers to reduce overflows;
- (ii) Address lift station inadequacies;
- (iii) Improve reporting of overflows; and
- *(iv) Strengthen sanitary sewer use requirements to reduce blockage from fats, oils, and grease.*
- b. On-site Sewage Facilities (for entities with appropriate jurisdiction)
 - (i) Identify and address failing systems; and
 - (ii) Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).
- c. Illicit Discharges and Dumping

Place additional effort to reduce waste sources of bacteria; for example, from septic systems, grease traps, and grit traps.

d. Animal Sources

Expand existing management programs to identify and target animal sources such as zoos, pet waste, and horse stables.

e. Residential Education

Increase focus to educate residents on:

(i) Bacteria discharging from a residential site either during runoff events or directly;

- *(ii) Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;*
- (iii) Decorative ponds; and
- (iv) Pet waste."

The above BMP list addresses focus areas coincident to those covered by the original I-Plan Management Measures; however, those actions were voluntary for all MS4s. The updated TPDES Small MS4 General Permit made the above list of actions mandatory and thus has shifted what once were voluntary management measures to regulatory control actions by mandating those BMPs for all small MS4 permittees with impairments for bacteria.

The following MS4s are regulated by the TCEQ and have approved SWMPs that address the required list of BMPs.

| MS4 Entity | TPDES Permit # | Entity Type |
|--|----------------|--------------|
| City of Manor | TXR040467 | City |
| City of Pflugerville | TXR040078 | City |
| City of Round Rock | TXR040253 | City |
| Travis County | TXR040327 | County |
| Texas Department of Transportation (statewide permit) | WQ0005011000 | State Agency |

Table 14. MS4s with approved SWMPs that address the required list of BMPs

Monitoring, Reporting, and Adaptive Management

Additionally, permittees are required to *"monitor or assess progress in achieving benchmarks and determine the effectiveness of BMPs"* through an evaluation of program implementation measures or assessment improvements in water quality. Small MS4 entities will report annually on their targeted BMPs and progress. An I-Plan annual report will include the detailed information provided by the MS4 entities.

The schedules for revising the I-Plan, the TPDES Small MS4 General Permit, and related SWMPs do not coincide. For example, TCEQ is drafting a revised TPDES Small MS4 General Permit, which will be submitted to the EPA in late 2017 for review and approval. Small MS4 entities will then update their respective SWMPs as required by new permit language and/or adaptive management requirements in that revised permit. Thus, it is best to refer to each permittee's SWMP rather than list specifically in this revised I-Plan the tasks each entity is performing.

The EPA's "anti-backsliding" rules for water quality-based permits (e.g., the TPDES Small MS4 General Permit) ensures that these new additional requirements (and/or their equivalents) remain the baseline for small MS4s and the basis for all future SWMPs. By including the requirements in the TPDES Small MS4 General Permit, there is a stronger commitment on behalf of the MS4 entities, a prescribed oversight and enforcement mechanism by TCEQ, and a built-in adaptive management process as the SWMPs are reviewed, updated, and renewed.

| (1) Control Action | Small MS4 Compliance and SWMP Requirements BMPs per the 2013-2018 TPDES Small MS4 permit. Control Action and SWMPs will update with permit renewal | | | | |
|---|---|--|---|---|---|
| (2) Best Management Practice | Sanitary Sewer Systems | On-site Sewage Facilities | Illicit Discharges and Dumping | Animal Sources | Residential Education |
| (3) Area of Emphasis | Reduce sanitary sewer overflows | educe sanitary sewer verflows Identify/address failing systems Reduce waste sources bacteria (e.g. septic | | Identify and target | Bacteria discharges from residential sites |
| | Address lift station inadequacies | Address inadequate maintenance OSSFs | systems, grease and grit traps) | zoos, pet waste, and horse stables) | Fats, oils and grease clogs in lines and overflows |
| | Improve reporting of overflows | | | | Decorative Ponds |
| | Reduce fats, oils and grease blockages | | | | Pet waste |
| (4) Education Target | Operations and maintenance staff and policy makers | OSSF owners and regulators | Operations and maintenance staff, stormwater staff, system owners, etc. | Code enforcement and zoning staff, policy | Residents and potentially visitors |
| (5) Schedule of Implementation | Initiated in 2013. Primary activities complete 2018. | Initiated in 2013. Primary activities complete 2018. | Initiated in 2013. Primary activities complete 2018. | Initiated in 2013. Primary activities complete 2018. | Initiated in 2013. Primary activities complete 2018. |
| (6) Interim, Measurable Milestones | Annual reporting required on subgoals and progress toward full implementation. | Annual reporting required on subgoals and progress toward full implementation. | Annual reporting required on subgoals and progress toward full implementation. | Annual reporting required on subgoals and progress toward full implementation. | Annual reporting required on subgoals and progress toward full implementation. |
| (7) Progress Indicators | Accomplishment of subgoals and targeted reductions. | Accomplishment of subgoals and targeted reductions. | Accomplishment of subgoals and targeted reductions. | Accomplishment of subgoals and targeted reductions. | Accomplishment of subgoals and targeted reductions. |
| (8) Monitoring Component | LCRA, City of Austin, and TCEQ provide water quality monitoring data through a Clean Rivers Program Quality Assurance Project Plan for assessment by TCEQ. Other entities, including Colorado River Watch Network (CRWN), perform water quality monitoring, although that data is not assessed by TCEQ. | | | | |
| (9) Responsible Organizations | TPDES Small MS4s (as applicable) via submitted SWMP | | | | |

Table 15. Control Action 1 - Small MS4 Compliance and SWMP Requirements

Control Action 2: Monitor and Report *E. coli* Concentrations from WWTF Effluent

In November 2009, TCEQ's Commission approved Rule Project No. 2009-005-309-PR. The rulemaking adds bacteria limits for *E. coli* for fresh water discharges to TPDES domestic permits in 30 TAC Chapter 309 and sets the frequency of testing for bacteria in 30 TAC Chapter 319.

As of 2017, domestic WWTFs discharging within the watershed are operated by City of Austin, City of Pflugerville, and SWWC Utilities, Inc. (Windermere Utility Company).

| Permittee | Facility | Permit # |
|----------------------|------------------|---------------------|
| City of Austin | Decker Creek | <u>WQ001887000</u> |
| City of Austin | Dessau | <u>WQ0012971001</u> |
| City of Austin | Harris Branch | <u>WQ0013318001</u> |
| City of Austin | Taylor Lane | <u>WQ0010543014</u> |
| City of Austin | Wild Horse Ranch | <u>WQ0010543013</u> |
| City of Pflugerville | Pflugerville | <u>WQ0011845002</u> |
| SWWC Utilities, Inc. | Windermere | <u>WQ0011931001</u> |

 Table 16.
 WWTF Permits for Control Action 2

All new and existing WWTFs in the watershed will monitor fecal bacteria (*E. coli*) according to their individual permit provisions. Monitoring and reporting through Discharge Monitoring Reports will continue as required by the individual permits. TCEQ is responsible for the enforcement of compliance with concentrations less than the limits stated in each facility's permit. If monitoring results indicate concentrations approaching or exceeding the limit set in the facility's permit, then the facility will make necessary operational changes to reduce the bacteria concentrations as required by the facility's permit.
| (1) Control Action | Monitor and report effluent <i>E. coli</i> at existing and new WWTFs. |
|--|---|
| (2) Best Management Practice | Proper operation of WWTFs. |
| (3) Area of Emphasis | Identify/address failing WWTF systems. |
| (4) Education Target | Status updates provided through TCEQ-hosted annual stakeholder meeting. |
| (5) Schedule of Implementation | Initiated in 2009; ongoing as specified in individual WWTF permits. |
| (6) Interim, Measurable Milestones | Continue monitoring and reporting <i>E. coli</i> . Make operational adjustments, and summarize and present data to stakeholders. |
| (7) Progress Indicators | All wastewater treatment facilities have <i>E. coli</i> concentrations less than permit limits. Reduction in <i>E. coli</i> concentrations in the affected watershed. |
| (8) Monitoring Component | Monitoring data self-reported from WWTFs. |
| (9) Responsible Organizations | City of Austin, City of Pflugerville, Windermere Utility Company. |

Table 17. Control Action 2 - Monitor and report effluent *E. coli* at existing and new WWTFs

Implementation Tracking, Sustainability, and Milestones

Implementation tracking provides information that can be used to determine if progress is being made toward meeting the goals of the TMDL. Tracking also allows stakeholders to evaluate the actions taken, identify those actions which may not be working, and make any changes that may be necessary to get the I-Plan back on target. Implementation milestones are measures of activities associated with control actions or management measures undertaken to improve water quality. Schedules and milestones for this revised I-Plan are included in the descriptions of each management measure and control action.

Water Quality Indicators

Water quality indicators are a measure of water quality conditions for comparison to pre-existing conditions or water quality standards. Routine *E. coli* bacteria monitoring will occur within each of the identified impaired assessment units included in this revised I-Plan to track the success of management measures and control actions over time.

Multiple governmental entities will collect *E. coli* bacteria samples from established monitoring sites (Figure 1) under a TCEQ-approved Quality Assurance Project Plan following TCEQ Surface Water Quality Monitoring Procedures Manual guidelines

(<u>https://www.tceq.texas.gov/waterquality/monitoring/swqm_guides.html#procedure</u>). Results will be submitted to TCEQ for inclusion in future assessments through the Texas Clean Rivers Program

(<u>https://www.tceq.texas.gov/waterquality/clean-rivers</u>). Conventional water quality parameters including nutrients and physiochemical parameters may also be collected to assist with continued fecal contamination source identification.

A current list of Texas Clean Rivers Program sample sites with site location maps, sampling frequency and monitoring parameters may be found on the LCRA Coordinated Monitoring Schedule webpage (<u>https://cms.lcra.org</u>). Texas Clean Rivers Program data for Gilleland Creek (Segment 1428C) may be downloaded from the TCEQ webpage

(<u>https://www80.tceq.texas.gov/SwqmisWeb/public/crpweb.faces</u>) or map viewer (<u>https://www80.tceq.texas.gov/SwqmisWeb/public/crpmap.html</u>).

Additional monitoring will be performed by volunteers coordinated through the LCRA's CRWN program. CRWN supports community-based environmental stewardship by providing volunteers with the information, resources, and training necessary to monitor and protect the waterways of the lower Colorado

River watershed. Monitoring locations and sample data are available via the CRWN webpage (<u>https://crwn.lcra.org/</u>).

| Segment | TCEQ Station Location ID | Site Name | Monitoring Entity |
|----------|-----------------------------|---|----------------------|
| 1428C_01 | <u>17257</u> | Gilleland Creek downstream of Webberville Road/FM 967 | LCRA |
| 1428C_02 | <u>12235</u> | Gilleland Creek at FM 973 south of Manor | City of Austin |
| 1428C_03 | <u>12236</u> | Gilleland Creek at US 290 north of Manor | City of Austin |
| 1428C_04 | <u>20474</u> | Gilleland Creek in Northeast Metropolitan Park southeast of Pflugerville | TCEQ |

Table 18. Gilleland Creek water quality indicator monitoring summary for fiscalyear 2018

Communications Strategy

Communication is necessary to ensure that stakeholders understand the revised I-Plan and its progress in improving water quality. The TCEQ and responsible entities will disseminate information about progress to interested parties.

The TCEQ and responsible entities will periodically assess the results of implemented activities and other sources of information to evaluate this I-Plan revision. Several factors may be evaluated, such as the pace of implementing planned activities, effectiveness of best management practices, load reductions, and progress toward meeting water quality standards. Evaluations will be in the form of annual progress reports each April, followed by annual meetings each May. If the responsible parties find through periodic assessments that insufficient progress has been made in improving water quality, the implementation strategy may be adjusted, consistent with the principles of adaptive management.

Summary and Discussion of Data Used

Multiple entities monitor Gilleland Creek water quality at different sites, using different analytical methods and at different sample frequencies. Some monitoring is done under the Texas Clean Rivers Program (<u>https://www.tceq.texas.gov/waterquality/clean-rivers</u>), and thus generates *E. coli* data of consistent quality utilized in water quality assessments by TCEQ (see Water Quality Indicators). Other entities sample water quality for different objectives and with different levels of quality control, and generate data that is not assessed by TCEQ.

In an effort to more completely understand the patterns of fecal contamination within the Gilleland Creek watershed, as part of the development of this Implementation Plan, all available *E. coli* routine monitoring data from Gilleland Creek was compiled from publicly-accessible Internet resources and reviewed (Table 19). This includes data collected by paid professionals, as well as data collected by trained volunteers through the CRWN.

| Collecting Entity | Data Source |
|---|---|
| City of Austin Watershed Protection Department | https://data.austintexas.gov/Environmental/Water- Quality-Sampling-Data/5tye-7ray/data |
| Colorado River Watch Network | https://crwn.lcra.org/ |
| Lower Colorado River Authority | http://waterquality.lcra.org/ |
| Texas Commission on Environmental Quality | http://www80.tceq.texas.gov/SwqmisWeb/public/crpwe b.faces |

Table 19. Sources of *E. coli* data included in the review of this Implementation Plan

Nineteen Gilleland Creek sites with *E. coli* data were identified, with data ranging from 1994 to 2017. For presentation purposes, sites are nicknamed based on a combination of subwatershed prefix (Gilleland=G, West Gilleland=W, Harris Branch=H, Decker=D) and downstream-to-upstream order (most downstream site = 1, second most downstream site = 2, etc.) (Figure 3). There were insufficient *E. coli* data from Elm Creek for analysis.





Using data from 2009 to 2017, the geometric mean *E. coli* concentrations exceed the primary contact recreation criteria of 126 cfu/100 mL at 14 of 19 sites (Table 20). This table shows the number of samples (#), year of first sample (First), year of last sample (Last), minimum *E. coli* measurement (Min), maximum *E. coli* measurement, geometric mean *E. coli* using all data (Geomean all), geometric mean *E. coli* using all data since 2009 (Geomean since 2009), and geometric mean *E. coli* excluding Colorado River Watch Network volunteer monitoring data since 2009 (Geomean since 2009 no CRWN).

Table 20. Summary of *E. coli* data used in this analysis

E. coli in MPN/100 mL. Highlighted cells exceed the 126 *E. coli* cfu/100 mL primary contact recreation criteria. #N/A indicates only Colorado River Watch Network volunteer monitoring data available.

| Site | # | First | Last | Min | Max | Geomean (all) | Geomean (since 2009) | Geomean (since 2009 no CRWN) |
|------|-----|-------|------|-----|-------|------------------|-------------------------|------------------------------------|
| G19 | 70 | 2008 | 2016 | 10 | 5200 | 153 | 157 | #N/A |
| G18 | 94 | 2008 | 2016 | 1 | 12710 | 151 | 153 | #N/A |
| G17 | 55 | 2009 | 2016 | 1 | 1049 | 117 | 117 | #N/A |
| G14 | 58 | 2009 | 2017 | 1 | 2100 | 99 | 99 | #N/A |
| G13 | 23 | 2006 | 2017 | 100 | 4111 | 291 | 265 | #N/A |
| G12 | 25 | 2012 | 2017 | 67 | 1200 | 245 | 245 | #N/A |
| G11 | 117 | 2005 | 2017 | 17 | 882 | 179 | 188 | 277 |
| G10 | 45 | 2008 | 2017 | 1 | 733 | 110 | 106 | #N/A |
| G07 | 31 | 2009 | 2017 | 36 | 3500 | 349 | 349 | 384 |
| G06 | 25 | 2005 | 2017 | 48 | 435 | 184 | 207 | 207 |
| W1 | 14 | 2005 | 2017 | 19 | 1011 | 116 | 131 | 131 |
| H3 | 21 | 2005 | 2017 | 70 | 3000 | 519 | 394 | 394 |
| H1 | 23 | 2005 | 2017 | 7 | 2420 | 158 | 224 | 224 |
| G04 | 18 | 2009 | 2012 | 46 | 490 | 211 | 211 | 211 |
| G03 | 24 | 2005 | 2017 | 23 | 500 | 130 | 139 | 139 |
| G02 | 61 | 2004 | 2017 | 12 | 5800 | 100 | 100 | 100 |
| G01 | 149 | 1994 | 2017 | 22 | 24000 | 175 | 195 | 195 |
| D5 | 14 | 2005 | 2017 | 4 | 2420 | 156 | 216 | 216 |
| D3 | 24 | 2005 | 2017 | 3 | 649 | 23 | 35 | 35 |

Exceedances of the primary contact recreation criteria occur throughout the watershed (Figure 4). Higher geometric mean values are observed in the upper portion of the watershed.



Figure 4. *E. coli* geometric means in MPN/100 mL

Black squares represent permitted discharges of treated wastewater effluent. Only green circles represent sites with geometric mean *E. coli* values less than the primary contact recreation criteria of 126 cfu/100 mL.

Because sampling frequencies and sampling dates between entities vary, individual samples collected during non-storm influenced conditions (no rainfall for at least 3 days prior to sampling) at multiple sites on the same day were qualitatively assessed for longitudinal patterns in an attempt to limit frequency and timing confounding factors (Table 21). Dates were selected to provide as many sites for comparison as possible. No obvious or consistent spatial patterns are evident.

Table 21. E. coli (MPN/100 mL) samples at multiple sites on the same day during non-storm influenced conditions

| Site | 30-Mar-05 | 16-Dec-09 | 15-Apr-15 | 10-Jan-17 |
|------|-----------|-----------|-----------|-----------|
| G11 | 17 | 127 | 272 | 222 |
| G06 | 310 | 66 | 154 | 361 |
| Н3 | 138 | 27 | 133 | 19 |
| H2 | 205 | 70 | 166 | 91 |
| H1 | 205 | 167 | 387 | 63 |
| G03 | 500 | 36 | 236 | 102 |
| G02 | 310 | 135 | 115 | 23 |
| G01 | 250 | 22 | 313 | 44 |
| D5 | 130 | 71 | 59 | 548 |
| D3 | 28 | 133 | 96 | 5 |
| E3 | 120 | 10 | 29 | 10 |

Highlighted cells exceed the 126 *E. coli* cfu/100 mL primary contact recreation criteria.

Temporal trends were assessed using running 20-sample geometric mean values for sites on the main stem of Gilleland Creek. Only main stem Gilleland Creek sites were assessed because these sites had the highest sampling frequency (Figure 5). Geometric means may be increasing over time at upstream sites (G14, G17, G18, G19), all located within the City of Pflugerville jurisdiction. Geometric means may also be increasing (degrading) even more dramatically over time at the mouth (G01), within unincorporated Travis County. Geometric means may be decreasing (improving) at G02, G07, G10 and G11. Sites G10 and G11 are located in the downstream portion of the City of Pflugerville jurisdiction.

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Figure 5. Running *E. coli* (MPN/100 mL) geometric means by site over time calculated using the prior 20 samples

The City of Austin EII is a multi-metric index assessing overall water quality conditions at a wide range of sites in the greater Austin area (https://austintexas.gov/department/environmental-integrity-index). While fecal bacteria are elevated in Gilleland Creek from nonpoint sources as noted in this revised Implementation Plan, and nutrients are elevated from permitted point source discharges of treated wastewater effluent, other indicators of water quality are generally good. Aquatic habitat, aquatic life (benthic macroinvertebrates and diatom), and aesthetic condition index scores are good and sediment toxicity is low based on EII assessments. Gilleland Creek EII scores are generally stable over time from 1999 to 2015, and Gilleland Creek ranks better than 26 out of the 49 watersheds assessed in recent assessments.

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APPENDIX C

EXISTING CITY OF MANOR STORMWATER RELATED ORDINANCES

(f) Expiration.

- (1) The approval of the Preliminary Plat shall expire twelve (12) months after the filing date, unless:
 - (i) a corresponding Final Plat on the land approved on the Preliminary Plat is filed, or
 - (ii) an extension is granted by the Commission in accordance with this Ordinance.
- (2) If a Preliminary Plat expires, it may be reinstated only upon resubmittal of the unaltered, approved plat to the Commission and Council and the approval by both bodies. All fees shall be repaid as if the plat were initially being submitted.

(g) Extension. The developer may apply for an extension, in writing, prior to the end of the initial twelve (12) month period, stating reasons for needing the extension and demonstrating pursuit of approvals for Construction Plans and/or Final Plat in accordance with this Ordinance. Upon receipt of this written request, the Commission may, at its discretion, grant up to a two (2) year extension so long as the Preliminary Plat remains consistent with the Master Plan and/or ordinances of the City.

(h) **Revision.** If a revision to a previously approved Preliminary Plat is required, then no application for Final Plat shall be accepted until the revised Preliminary Plat has been submitted and approved by the Commission. This signed, approved document shall be kept on file as public record in the offices of the City.

(i) **Responsibility.** Notwithstanding the approval of any Preliminary Plat by the Council, Commission or the City Engineer, the developer and the engineer that prepares and submits such plats shall be and remain responsible for the adequacy of the design and nothing in this Ordinance shall be deemed or construed to relieve or waive the responsibility of the developer or his/her engineer for or with respect to any plat submitted.

Section 23. <u>Construction Plans</u>.

(a) **Purpose.** Construction plans, based upon the approved Preliminary Plat, and consisting of detailed specifications and diagrams illustrating the location, design, and composition of all improvements identified in the Preliminary Plat phase and required by this Ordinance and other applicable City ordinances, codes and policies, shall be submitted to the City for approval. In addition, any project that necessitates the construction, reconstruction or modification of existing City infrastructure shall also be submitted to the City for approval. The plans shall be kept by the City as a permanent record of required improvements in order to:

(1) Provide better records that facilitate the operation and maintenance of, and any future modifications to existing City infrastructure.

- (2) Provide data for evaluation of materials, methods of construction and design.
- (3) Provide documentation of approved public improvements to ensure that all such improvements are built to City standards and specifications.
- (4) No Final Plat shall be certified by the City, and no construction activities shall commence, until such time as Construction Plans completely describing the on-site and off-site improvements required by this Ordinance and other applicable City ordinances and codes, have been approved by the City Engineer.

(b) **Format**. Drawings shall be on twenty-four inch by thirty-six inch (24"x36") sheets at generally accepted horizontal and vertical engineering scales.

(c) **Content.** Construction plans shall include all on and off-site improvements required to serve the proposed development as indicated on the approved Preliminary Plat and in compliance with applicable ordinances, codes, standards and policies of the City, and other applicable governmental entities. All Construction Plans shall be signed and sealed by a registered professional engineer, licensed to practice in the State of Texas, and shall contain or have attached thereto:

- (1) Cover Sheet.
 - (i) the appropriate project name, date, and the name, addresses and phone numbers of the developer, engineer and surveyor, etc.
 - (ii) a location map showing the relation of the subdivision to streets and other prominent features in all directions for a radius of at least one (1) mile using a scale of one inch equals two thousand feet (1" = 2,000'). The latest edition of the USGS 7.5 minute quadrangle map is recommended.
- (2) Street and Roadway Systems:.
 - (i) The horizontal layouts and alignments showing geometric data and other pertinent design details. The horizontal layout shall also show the direction of storm water flow and the location of manholes, inlets and special structures;
 - (ii) Vertical layouts and alignments showing existing and proposed center line, right and left right-of-way line elevations along each proposed roadway.
 - (iii) Typical right-of-way cross sections showing pertinent design details and elevations as prescribed in the City Standard Details and Specifications;
 - (iv) Typical paving sections showing right-of-way width, lane widths, median widths,

shoulder widths, and pavement recommendations;

- (v) Attendant documents containing any additional information required to evaluate the proposed roadway improvements, including geotechnical information; and
- (3) Drainage Improvements:
 - (i) Detailed design of all drainage facilities as indicated in the Preliminary Plat phase, including typical channel or paving section, storm sewers and other storm water control facilities.
 - (ii) Typical channel cross-sections, plan and profile drawings of every conduit/channel shall be shown.
 - (iii) Existing and proposed topographic conditions indicating one (1) foot contour intervals for slopes less than 5%, two (2) foot contour intervals for slopes between 5% and 10%, and five (5) foot contour intervals for slopes exceeding 10%, and referenced to a United States Geological Survey or Coastal and Geodetic Survey bench mark or monument.
 - (iv) Attendant documents containing design computations in accordance with this Ordinance, and any additional information required to evaluate the proposed drainage improvements.
 - (v) A copy of the complete application for flood plain map amendment or revision, as required by the Federal Emergency Management Agency (FEMA), if applicable.
- (4) Erosion and Sedimentation Controls:
 - (i) Proposed fill or other structure elevating techniques, levees, channel modifications and detention facilities.
 - (ii) Existing and proposed topographic conditions with vertical intervals not greater than one (1) foot referenced to a United States Geological Survey or Coastal and Geodetic Survey bench mark or monument.
 - (iii) The location, size, and character of all temporary and permanent erosion and sediment control facilities with specifications detailing all on-site erosion control measures which will be established and maintained during all periods of development and construction.
 - (iv) Contractor staging areas, vehicle access areas, temporary and permanent spoils storage areas.

- (v) A plan for restoration for the mitigation of erosion in all areas disturbed during construction.
- (5) Water Distribution Systems:
 - (i) The layout, size and specific location of the existing and proposed water mains, pump stations, storage tanks and other related structures sufficient to serve the proposed land uses and development as identified in the Preliminary Plat phase and in accordance with the City Standard Details and Specifications.
 - (ii) The existing and proposed location of fire hydrants, valves, meters and other fittings.
 - (iii) Design details showing the connection with the existing City water system.
 - (iv) The specific location and size of all water service connections for each individual lot.
 - (v) Attendant documents containing any additional information required to evaluate the proposed water distribution system.
- (6) Wastewater Collection Systems:
 - (i) The layout, size and specific location of the existing and proposed wastewater lines, manholes, lift stations, and other related structures sufficient to serve the land uses and development as identified in the Preliminary Plat phase, in accordance with all current City standards, specifications, and criteria for construction of wastewater systems.
 - (ii) Plan and profile drawings for each line in public right-of-ways or public utility easements, showing existing ground level elevation at center line of pipe, pipe size and flow line elevation at all bends, drops, turns, and station numbers at fifty (50) foot intervals.
 - (iii) Design details for manholes and special structures. Flow line elevations shall be shown at every point where the line enters or leaves the manholes.
 - (iv) Detailed design for lift stations, package plants or other special wastewater structures.
 - (v) Attendant documents containing any additional information required to evaluate the proposed wastewater system, and complete an application for State Health

Department approval.

- (7) Street Lighting. The location, size, type and description of street lights according to City Standard Details and Specifications.
- (8) Street Signs. The location, size, type and description of street signs according to City Standard Details and Specifications.
- (9) Sidewalks. The location, size and type of sidewalks and pedestrian ramps according to City Standard Details and Specification.
- (10) Improvements for Parks, Open Spaces and other Public and Common areas as identified and/or approved on the Preliminary Plan.
- (11) The location, size and description of all Significant Trees (to remain and to be removed), and Replacement Trees to meet the requirements of this Ordinance.
- (12) Landscaping and Screening. The location, size and description of all landscaping and screening materials as required by this Ordinance.
- (13) Design Criteria. Final design criteria, reports, calculations, and all other related computations, if not previously submitted with the Preliminary Plat.
- (14) Cost Estimates. A cost estimate of each required improvement, prepared, signed and sealed by a professional engineer licensed to practice in the State of Texas.

(d) **Procedure.** After all necessary approvals of the Preliminary Plat have been granted, Construction Plans, together with a completed application form and review fee, shall be submitted to the City Engineer for approval.

- (1) Construction Plans may be submitted for review and approval simultaneously with a Final Plat, provided however that the Final Plat shall not be approved until the Construction Plans have been approved. If the Construction Plans and the Final Plat are to be reviewed simultaneously, a complete application for Construction Plans and a complete application for Final Plat must be submitted to the City simultaneously.
- (2) City staff shall review all Construction Plan submittals for administrative completeness at the time of application. If in the judgment of the City, the Construction Plan submittal substantially fails to meet the minimal informational requirements as outlined above, it will not be accepted for review and the Construction Plan shall be deemed denied. The developer shall have up to sixty days from the date the Construction Plan is deemed denied to remedy all deficiencies or the Construction Plan shall be rejected for filing and new filing fees will be required for subsequent submittals.

- (3) The City Engineer shall review the Construction Plans to insure compliance with this Ordinance, and other applicable City ordinances, codes, standards and specifications, and good engineering practices.
- (4) For projects located within the City's extraterritorial jurisdiction, the Construction Plans and attendant documents shall be provided to the County for review and approval. The applicant shall be responsible for any additional information required by the County for Construction Plan approval.

(e) **Approval.** Within thirty (30) days of the date on which all required information has been accepted for review, the City Engineer shall either approve or disapprove the Construction Plans.

- (1) If the Construction Plans are disapproved, the City Engineer shall notify the applicant, in writing, of disapproval and indicate the requirements for bringing the Construction Plans into compliance.
- (2) If Construction Plans are approved, then the City Engineer shall sign the cover sheet of the Construction Plans, returning one (1) signed copy to the applicant and retaining the other signed copy for City records.
- (3) The developer should be aware that specific approvals from other agencies may be required.
- (4) All improvements shown in the approved Construction Plans shall be constructed pursuant to and in compliance with the approved plans, except as otherwise specifically approved.

(f) **Revision.** Where it becomes necessary, due to unforeseen circumstances, for corrections to be made to Construction Plans for which approval has already been obtained, the City Engineer shall have the authority to approve such corrections when, in his/her opinion, such changes are warranted and also in conformance with City requirements. Approval of such changes agreed to between the developer and City Engineer shall be noted by initialing and dating by both parties on the two (2) original signed copies of the Construction Plans.

(g) **Responsibility.** Notwithstanding the approval of any Construction Plans by the Council, Commission or the City Engineer, the developer and the engineer that prepares and submits such plans and specifications shall be and remain responsible for the adequacy of the design of all such improvements; and nothing in this Ordinance shall be deemed or construed to relieve or waive the responsibility of the developer or his/her engineer for or with respect to any design, plans and specifications submitted.

Section 24. Final Plat.

(a) Purpose. The Final Plat provides detailed graphic information and associated text indicating

- (2) The components of the street system should in different degrees serve the separate purposes of access to property and safe, efficient movement of traffic. Land use types should be served by roadways whose capacity increases in proportion to the traffic generation of the land use. Design and location of points of access to property should be appropriate to the volume and speed characteristics of traffic utilizing the intersection.
- (3) An open space system throughout the urban area should provide a range of active and passive recreation opportunities. Park, open space and recreation facilities should be located with sensitivity to user population, natural features, traffic generation, and nearby land use.
- (4) Land use arrangement and design should minimize the difference in intensity between adjacent uses in order to provide for the provision of water, wastewater and roadways sufficient to serve the proposed densities and provide for compatible neighboring developments. Step-down patterns of use surrounding major activity centers, combined with buffering techniques, should ensure that residential densities are compatible with each other, and that residential development is not adversely impacted by higher intensity uses.
- (5) Public utilities and infrastructure should be provided within all subdivisions in order to ensure the health, safety and well-being of the public. Utility capacity should be sufficient to meet accepted standards of service to reasonably anticipated development. Where excess capacity in utility lines or facilities within a subdivision will further the efficient and desirable extension of utilities to adjacent property, equitable provision of such capacity is essential to the orderly growth of the urban area.
- (6) Construction of water, wastewater, drainage, gas, electric, telephone and cable television utilities that require utility cuts of a public street shall be repaired pursuant to applicable City ordinances.

Section 41. Drainage Improvements.

(a) **Purpose**. The drainage improvement provisions contained herein are deemed necessary for the following reasons:

- (1) Waterways and their associated watersheds within the City's territorial jurisdiction represent significant and irreplaceable recreational and aesthetic resources and contribute directly to the City's public health.
- (2) The continued economic growth of the City is dependent on an adequate quality and quantity of stormwater runoff, a pleasing natural environment, recreational opportunities in close proximity to the City as well as the protection of people and property from the hazards of flooding.

- (3) All watersheds within the City's jurisdiction, and especially those with abrupt topography, sparse vegetation, and thin and easily disturbed soil, are vulnerable to flooding due to unregulated development activities.
- (4) All watersheds within the City's jurisdiction are undergoing development or are facing development pressure.
- (5) If watersheds within the City's jurisdiction are not developed in a sensitive and innovative manner, their water resources, natural environment, and recreational characteristics may be irreparably damaged.
- (6) The City should regulate all drainage within the City's jurisdiction for the public benefit and safety, including both the existing and future generations of citizens of the City, as well as for downstream users of the each waterway within the City's territorial jurisdiction.
- (b) Policy.
- (1) All drainage improvements within the City's jurisdiction shall be designed in accordance with the City of Austin's Drainage Criteria Manual, as currently amended, save and except the following:
 - (i) Preface,
 - (ii) Paragraph 1.2.2.E
 - (iii) Paragraph 1.2.4.E.2, and 1.2.4.E.11;
 - (iv) Paragraph 1.2.7;
 - (v) Paragraph 1.4.0;
 - (vi) Paragraph 8.2;
 - (vii) Appendix D; and
 - (viii) All references to the City of Austin, including its departments, boards or divisions shall be the same departments, boards or divisions within the City of Manor. Where such departments, boards or divisions do not exist within the City of Manor, such references shall be construed to mean the Commission, the City Engineer or other representative authorized by the City Council to perform such functions on the City's behalf. (Ordinance No. 300-F-94)

- (2) The Commission shall not recommend approval or approve any plat or plan which does not meet the minimum requirements of this Ordinance in making adequate provisions for control of the quantity of stormwater runoff to protect the public health, safety and property, and benefit the present and future owners of property within the development, other lands within the City and neighboring areas.
- (3) It shall be the responsibility of the developer to design and construct a system for the collection and transport of all stormwater runoff flowing into, and generated within the development, in accordance with:
 - (i) The requirements of this Ordinance.
 - (ii) The City of Austin Drainage Criteria Manual, as currently amended, save and except as noted in this Ordinance.
 - (iii) Good engineering practices.
 - (iv) Approved engineering plans for construction.
 - (v) The regulations and principles of law established pursuant to the Texas Water Code.
- (4) In general, drainage improvements shall be designed and constructed in a manner which promotes the development of a network of both natural and built drainage ways throughout the community and so as to:
 - (i) Retain natural flood plains in a condition that minimizes interference with flood water conveyance, flood water storage, aquatic and terrestrial ecosystems, and ground and surface water.
 - (ii) Reduce exposure of people and property to the flood hazards and the nuisances associated with inadequate control of stormwater runoff.
 - (iii) Systematically reduce the existing level of flood damages.
 - (iv) Ensure that corrective works are consistent with the overall goals of the City.
 - (v) Minimize erosion and sedimentation problems and enhance water quality.
 - (vi) Protect environmental quality, social well-being and economic stability.
 - (vii) Plan for both the large flooding events and the smaller, more frequent flooding events by providing both major and minor drainage systems.

- (viii) Minimize future operational and maintenance expenses.
- (ix) Reduce exposure of public investment in utilities, streets and other public facilities (infrastructure).
- (x) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the public.
- (xi) Acquire and maintain a combination of recreational and open space systems utilizing flood plain lands.

Section 42. <u>Transportation Improvements</u>.

(a) **Purpose.** The planning for a thoroughfare system is essential for the continued efficient movement of people and goods, and the Master Plan shall serve as a guide for the location and scale of future collector and arterial streets. The precise alignment of thoroughfares included in the Plan may be varied to allow adjustments that increase the compatibility of the right-of-way with natural or man made features such as steep slopes, waterways, wildlife habitats, neighborhoods, historic structures or existing roadways.

- (b) Policy.
- (1) All transportation improvements including streets, driveways, sidewalks, bikeways, traffic control, and parking areas within the City's jurisdiction shall be designed in accordance with the City of Austin's Transportation Criteria Manual, as currently amended, save and except the following:
 - (i) All references to the Austin Metropolitan Area Transportation Plan shall be construed to mean the City of Manor's Master Plan;
 - (ii) Paragraph 1.3.1.G;
 - (iii) Compact parking spaces will not be allowed;
 - (iv) All references to Austin zoning districts as they pertain to street classifications, trip generation, recommended pavement design, off-street parking requirements;
 - (v) Appendix F; and all references to the City of Austin, including its departments, boards or divisions shall be the same departments, boards or divisions within the City of Manor. Where such departments, boards or divisions do not exist within the City, such references shall be construed to mean the Commission, the City Engineer or other representative authorized by the City Council to perform such functions on the City's behalf.

ORDINANCE NO. <u>494</u>

AN ORDINANCE OF THE CITY OF MANOR, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF MANOR, TEXAS BY ADDING ARTICLE 6.04 TO CHAPTER 6, HEALTH AND SANITATION, REGULATING THE USE OF THE DISCHARGE OF WATERS AND WASTE INTO THE CITY'S STORM WATER SYSTEM, DRAINAGE FACILITIES AND OUTFALLS; PROHIBITING CERTAIN DISCHARGES; PROVIDING FOR SUSPENSION OF SERVICES; PROVIDING A PENALTY FOR VIOLATIONS OF THE ORDINANCE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

Whereas, it is the intent of this Ordinance to maintain and improve the quality of surface water and groundwater within the City of Manor and the State of Texas; and

Whereas, it is the intent of this Ordinance to facilitate compliance with state and federal water quality standards, limitations, and permits by owners and operators of industrial activities and construction sites within the City; and

Whereas, the City of Manor finds that adoption of this ordinance prohibiting certain discharges into the City's storm water system and drainage facilities and outfalls will promote and protect the public health, safety and welfare;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANOR, TEXAS, THAT:

Section 1. <u>Findings.</u> The forgoing recitals are incorporated into this Ordinance as true and correct findings of fact.

Section 2. <u>Amendment of Code of Ordinances.</u> The City Council hereby amends Chapter 6 Health and Sanitation, of the City's Code of Ordinances to add a new *Article 6.04*. *Water Quality Protection* section, attached hereto as Exhibit "A" and incorporated herein for all purposes.

Section 3. <u>Repealing All Ordinances in Conflict.</u> All other ordinances or parts of ordinances inconsistent or in conflict herewith, or to the extent of such inconsistency or conflict are hereby amended to the extent of such inconsistency or conflict. In the event of a conflict between this Ordinance and another ordinance of the City, this Ordinance shall control.

Section 4. <u>Savings Clause.</u> This City Council of the City of Manor, Texas does hereby declares that if any section, subsection, paragraph, sentence, clause, phrase, work or portion of this Ordinance is declared invalid, or unconstitutional, by a court of competent jurisdiction, that, in such event that it would have passed and ordained any and all remaining portions of this Ordinance without the inclusion of that portion or portions which may be so found to be unconstitutional or invalid, and declare that its intent is to make no portion of this Ordinance dependent upon the validity of any portion thereof, and that all said remaining portions shall continue in full force and effect.

Section 5. <u>Compliance With Open Meetings Act.</u> It is hereby officially found and determined that the meeting at which this Ordinance was considered was open to the public as required and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

Section 6. <u>Effective Date.</u> This Ordinance shall take effect immediately upon its adoption by the City Council and publication as required by the Local Government Code.

PASSED AND APPROVED on this the 15th day of November 2017.

CITY OF MANOR, TEXAS pre Rita G. Jonse, Mayor

ATTEST:

U Lluvia Tijerina, City Secretary



Exhibit "A"

ARTICLE 6.04 WATER QUALITY PROTECTION

Sec. 6.04.001 Purpose and Intent

(a) The purpose of this Article is to provide for the health, safety and general welfare of the citizens of Manor through the regulation of non-storm water discharges into the storm drainage system to the maximum extent practicable as required by federal and state law.

(b) This Article applies to all incorporated areas of the City of Manor, Texas and all areas located within the City of Manor's jurisdictional boundaries.

(c) This Article establishes methods for regulating the introduction of pollutants into the City's municipal separate storm water system (or MS4) in order to comply with requirements, set forth by the National Pollutant Discharge Elimination System (NPDES) permit.

(d) To promote public awareness of the harm involved in the improper discharge of hazardous substances, petroleum products, household hazardous waste, industrial waste, sediment from construction sites, pesticides, herbicides, fertilizers, and other contaminants into the storm sewers and natural waters of the City.

(e) The objectives of this Article are:

(1) To regulate the contribution of pollutants to the City of Manor MS4 by storm water discharges by any user.

(2) To prohibit illicit connections and discharges to the City of Manor MS4 system.

(3) To establish legal authority to carry out inspection, surveillance and monitoring procedures necessary to ensure compliance with this Article.

Sec. 6.04.002 Definitions

<u>Accidental Discharge</u>. An act or omission through which waste or other substances are inadvertently discharged into water in the State or a MS4.

<u>Best Management Practices or "BMPs"</u>. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of water in the State or the City MS4. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

City. The City of Manor, Texas.

<u>City of Manor Municipal Separate Storm Sewer System or "City MS4"</u>. The Small MS4 owned or operated by the City of Manor.

<u>Clean Water Act</u>. The federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq) and any subsequent amendments thereto.

Common Plan of Development. A contiguous area where various separate and distinct construction

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activities may be taking place at different times on different schedules under one plan, development or ownership.

<u>Construction Activity</u>. Activities that are subject to NPDES Construction Permits. These activities include but are not limited to clearing and grubbing, grading, excavating and demolition.

Contaminated. Containing a harmful quantity of any substance.

Designated City Official or DCO. The City Manager or his designee.

<u>Discharge or To Discharge</u>. Any addition, introduction, release, or flow of any pollutant, storm water, or other substance, whether separate or mixed, into the municipal separate storm sewer system (MS4), surface water in the state or the waters of the U.S. The term includes any spilling, leaking, pumping, pouring, emitting, emptying, escaping, leaching, dumping, disposing, or other type of release or discharge engaged in, caused, or allowed by a discharger.

<u>Discharger</u>. Any person who causes, allows, permits, or suffers, or is otherwise responsible for, a discharge, spill or release, including, without limitation, any operator of a construction site or industrial facility, and the owner of a facility that is the source of a discharge.

<u>Domestic Sewage</u>. Any human excrement, gray water (from home clothes washing, bathing, showers, dishwashing, and food preparation), other wastewater from household drains, and waterborne waste normally discharged from the sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories, and institutions, that is free from industrial waste.

Facility. Any structure or building, including contiguous land, or equipment, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, aircraft, or any site or area.

Final Stabilization. The status when all soil disturbing activities at a site have been completed, and a uniform (i.e. evenly distributed, without large bare areas) perennial vegetative cover, with an established density of 70% of the original cover for unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

<u>Floatables</u>. Anything lighter than water that can float on top of water.

<u>*Garbage*</u>. Putrescible animal and vegetable waste and residue from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.

<u>*Harmful Quantity*</u>. The amount of any substance that will cause pollution in the municipal separate storm sewer system, surface water in the state or the waters of the U.S.

<u>*Hazardous Materials*</u>. Any material, including any substance, waste or combination of, which because of its quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to a present or potential hazard to human safety, health, property or the environment when improperly treated, stored, disposed of or transported.

Hazardous Substance. Any substance listed in Table 302.4 of 40 CFR Part 302.

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<u>Hazardous Waste</u>. Any liquid, semi liquid or solid waste (or combination of wastes), which because of its quantity, concentration, physical, chemical or infectious characteristics may:

(a) Have any of the following characteristics: Toxic, corrosive, an irritant, a strong sensitizer, flammable or combustible, explosive, or otherwise capable of causing substantial personal injury or illness.

(b) Pose a substantial hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise improperly managed, and is identified or listed as a hazardous waste as defined by the Texas Solid Waste Disposal Act or defined under 40 CFR Part 261.3.

<u>Illicit Connection</u>. A man-made conveyance regardless of whether it is on the surface or subsurface, that allows any illicit discharge to enter a municipal separate storm sewer or, any conveyance connected from a commercial or industrial site to a municipal separate storm sewer which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

<u>Illicit Discharge</u>. Any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except those discharges that are allowed under this Article, or pursuant to a separate authorization from the State or EPA.

<u>Industrial Activity</u>. Manufacturing, processing, material storage, and waste material disposal areas (and similar areas where storm water can contact industrial pollutants related to the industrial activity) at an industrial facility described by the TPDES Multi Sector General Permit, TXR050000, or by another TCEQ or TPDES permit.

<u>Maximum Extent Practicable</u>. The technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by CWA sec. 402(p).

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

- (b) Is designed or used for collecting or conveying storm water; and
- (c) Is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2.

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

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

- (b) Is designed or used for collecting or conveying storm water; and
- (c) Is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2.

<u>National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit</u>. A permit issued by the EPA (or by TCEQ) that authorizes the discharge of pollutants to water of the United States, whether the permit is applicable on an individual, group or general area-wide basis.

<u>Non-storm Water Discharge</u>. Any discharge to the storm drain system that is not composed entirely of storm water.

<u>Notice of Change (NOC)</u>. The Notice of Change that is required by the Construction General Permit, the Multi-Sector General Permit or the Municipal Separate Storm Sewer General Permit.

<u>Notice of Intent (NOI)</u>. The Notice of Intent that is required by the Construction General Permit, the Multi-Sector General Permit or the Municipal Separate Storm Sewer General Permit.

<u>Notice of Termination (NOT)</u>. The Notice of Termination that is required by the Construction General Permit, the Multi-Sector General Permit or the Municipal Separate Storm Sewer General Permit.

Operator. The person responsible for the overall operation of a site or facility.

(a) **Primary Operator** – the person or persons associated with a large or small construction activity that meets either of the following two criteria:

(1) have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

(2) have the day-to-day operational control over those activities at a construction site that are necessary to ensure compliance with a storm water pollution prevention plan (SWP3) for the site or other permit conditions (e.g. they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

(b) **Secondary Operator -** the person whose operational control is limited to the employment of other operators or to the ability to approve or disapprove changes to plans and specifications. A secondary operator is also defined as a primary operator and must comply with the permit requirements for primary operators if there are no other operators at the construction site.

<u>Other Substances</u>. Substances that may be useful or valuable and therefore are not ordinarily considered to be waste, but that will cause pollution if discharged into water in the state.

<u>Owner</u>. The owner of real property subject to a proposed or existing subdivision, site, parcel of land, or development.

<u>*Person.*</u> An individual, association, partnership, corporation, organization, business trust, political subdivision, state or federal agency, or an agent or employee thereof.

Person responsible or Responsible Person. means:

(a) the owner, operator, or demise charterer of a vessel from which a spill emanates;

- (b) the owner or operator of a facility from which a spill emanates; or
- (c) any other person who causes, suffers, allows, or permits a spill or discharge.

<u>*Pesticide*</u>. A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant (as these terms are defined in Section 76.001 of the Texas Agriculture Code).

<u>Pollutant</u>. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to paints, varnishes, and solvents; oil and other automotive fluids; dredged spoil: liquid and solid wastes and yard wastes; incinerator residue; sewage; garbage, litter or other discarded objects; sewage sludge; filter backwash; chemical wastes; biological materials; radioactive materials; wrecked or discarded equipment; rock, sand, cellar dirt; wastes and residues that result from constructing a building or structure; and industrial, municipal, and agricultural waste. The term:

(a) includes tail water or runoff water from irrigation associated with an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone as defined by Texas Water Code Section 26.502; and

(b) includes rainwater runoff from the confinement area of an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone, as defined by Texas Water Code Section 26.502; but

(c) does not include tail water or runoff water from irrigation or rainwater runoff from other cultivated or uncultivated rangeland, pastureland, and farmland that is not owned or controlled by an operator of an animal feeding operation or concentrated animal feeding operation on which agricultural waste is applied.

<u>*Pollution*</u>. The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

<u>Premises</u>. Any building, lot, parcel of land, or portion of land, regardless of whether it is improved or unimproved, including adjacent sidewalks and parking strips.

<u>Site</u>. The land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

<u>State</u>. The State of Texas.

<u>Storm Water</u>. Any surface flow, runoff and drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation.

<u>Storm Water Pollution Prevention Plan or "SWPPP" or "SWP3"</u>. A document which describes the best management practices and activities to be implemented by a person/entity to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to water in the State, a conveyance or a municipal separate storm sewer to the maximum extent practicable. The SWP3 must include all practices and activities required by any applicable TCEQ permit as well as any applicable requirements of the Travis County Code or City of Manor Ordinances.

<u>Surface Water in the State</u>. Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHWM) out of 1,036 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

"TCEQ". Texas Commission on Environmental Quality or any successor agency.

<u>Texas Pollutant Discharge Elimination System or "TPDES"</u>. The state program for issuing, amending, terminating, monitoring, and enforcing permits authorizing the discharge of pollutants to water in the State of Texas, and imposing and enforcing pretreatment requirements, under Clean Water Act §§ 307, 402, 318 and 405, the Texas Water Code and Texas Administrative Code regulations

<u>*To discharge*</u>. To deposit, conduct, drain, emit, throw, run, allow to seep, or otherwise release or dispose of, or to allow, permit or suffer any of these acts or omissions.

<u>TPDES permit</u>. A Texas Pollutant Discharge Elimination System permit issued by the State of Texas under authority from EPA pursuant to 33 USC § 1342 (b) that authorizes the discharge of pollutants to surface water in the state or the waters of the U. S., whether the permit is applicable on an individual, group, or general area-wide basis.

<u>*Waste*</u>. Sewage, industrial waste, municipal waste, recreational waste, agricultural waste, or other waste, as the terms are defined in Texas Water Code, Section 26.001.

<u>Wastewater</u>. Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

<u>Water in the State</u>. Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the State of Texas or inside the jurisdiction of the State of Texas.

<u>Waters of the United States</u>. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters, including interstate wetlands; all other waters the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the United States under this definition; all tributaries of waters identified in this definition; all wetlands adjacent to waters identified in this definition; and any waters within the federal definition of "waters of the United States" at 40 CFR § 122.2; but not including any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the federal Clean Water Act.

Sec. 6.04.003 Applicability

This Article shall apply to all water entering the storm drainage system generated on any developed or

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undeveloped lands unless explicitly exempted by the City.

Sec. 6.04.004 Responsibility for Administration

The City shall administer, implement and enforce the provisions of this Article.

Sec. 6.04.005 Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this Article are minimum standards; therefore, this Article does not imply that compliance by any person or entity will ensure that no contamination, pollution or unauthorized discharge of pollutants will occur.

Sec. 6.04.006 Prohibited Discharges

(a) No person may cause, suffer, allow, or permit the discharge of any waste or of any pollutant, or the performance or failure of any activity other than a discharge, in violation of this Article.

(b) No person may discharge or cause to be discharged into the City MS4 or into a water in the State any pollutant that causes or contributes to a violation of applicable water quality standards, other than storm water authorized by permit or similar authorization issued by the TCEQ.

(c) The commencement, conduct or continuance of any illicit discharge is prohibited except as described as follows:

(1) The following discharges are exempt from this Article only if they do not substantially contribute pollutants in storm water runoff:

(A) water line flushing, or other potable water sources;

(B) water line breaks, only if sediment and chlorine in the discharge is controlled so that there is no impact to aquatic life;

(C) water line hydrant testing, only if rust deposits and chlorine levels do not result in an impact to aquatic life;

(D) runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;

- (E) landscape irrigation or lawn watering;
- (F) diverted stream flows;
- (G) rising groundwater or springs;
- (H) discharges from uncontaminated groundwater infiltration;
- (I) discharges from uncontaminated, pumped groundwater;
- (J) discharges from uncontaminated foundation and footing drains;
- (K) discharges from air conditioning condensation;

(L) discharges from water pumped from an elevator sump or utility vault, only if it is free of oil and visible sheen;

(M) discharges from individual residential exterior car washing only if mild detergents are used and the discharges contain no degreasers or other chemicals;

(N) flows from a wetland or riparian habitat;

(O) uncontaminated discharges associated with a de-chlorinated, residential swimming pool, spa, or ornamental fountain, excluding filter backwash wastewater and excluding saline water;

(P) discharges from the routine washing of pavement only if the washing is done without the use of detergents or other chemicals; spills or leaks of oil, toxins, or other hazardous materials have not occurred (unless all spilled material has been removed); and the discharge does not include street sweeper wash water;

(Q) discharges from fire-fighting activities where foam or chemical agents are not used (and not including washing of trucks, runoff from training activities, and similar activities);

(R) discharges of uncontaminated fire test maintenance and fire sprinkler/suppression system water;

(S) discharges of uncontaminated water used for dust suppression;

(T) dye testing, if written notification is made to the City prior to the time of the test;

(U) discharges associated with dewatering of collected storm water in an above-ground storage tank secondary containment area if the water is free of, oil, visible sheen, and other contaminants;

(V) discharges from dewatering of collected storm water in a construction pit, only if the discharge is free of silt, oil, and visible sheen;

(W) discharges of storm water from an authorized permanent water quality control;

(X) discharges of water from a dumpster or similar receptacle if the water is free of oil, visible sheen, and other contaminants; and

(Y) Any discharge specified in writing by the City as being necessary to protect public health and safety.

(d) The prohibitions set forth in this Section do not apply to any non-storm water discharge authorized by a TPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the United States Environmental Protection Agency and TCEQ if:

(1) The authorized person is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations;

(2) Written approval has been granted by the City for any discharge to the City Municipal Separate Storm Sewer; and

(3) The discharge does not contain a pollutant or any substance which causes, continues to cause, or will cause pollution.

(e) A person violates this Article if the person discharges any storm water that contains a pollutant or any substance which causes, continues to cause, or will cause pollution.

(f) The construction, use, maintenance, or continued existence of an illicit connection to the City Municipal Separate Storm Sewer is prohibited. This prohibition expressly includes, without limitation, an illicit connection made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

Sec. 6.04.007 Prohibition of Illicit Connections

(a) A person commits an offense if said person constructs, uses or maintains an illicit connection to the storm drain system. This applies to an illicit connection made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(b) A person is considered to be in violation of this Article if the person connects a line conveying sewage to the MS4 or allows such a connection to continue.

Sec. 6.04.008 Specific Prohibitions and Requirements

(a) The specific prohibitions and requirements in this Section are not inclusive of all the discharges prohibited by the general prohibition in Section 6.04.006.

(b) No person may dispose of, release, introduce or cause to be introduced into the MS4 any discharge that causes or contributes to the City to violate a water quality standard, or any state-issued discharge permit for discharges from its MS4.

(c) No person may dispose of, release, discharge, or otherwise introduce, cause, suffer, allow, or permit to be introduced any of the following substances into the MS4:

(1) Oil, cutting oil, petroleum products, and other motor vehicle fluids, such as gasoline, antifreeze, oil, transmission fluid, hydraulic fluid, brake fluid, or power steering fluid;

- (2) Industrial waste;
- (3) Hazardous waste, including household hazardous waste;

(4) Any liquids, solids or gases or any other substances which are a fire or other hazard to the system, which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fires, explosions, or be injurious in any other way to the facilities or operation of the storm water system.

- (5) Domestic sewage or septic tank waste, grease trap waste, or grit trap waste;
- (6) Free or emulsified fats, waxes, greases or oils.
(7) Garbage, rubbish, yard waste, refuse, or other floatable material;

(8) Wastewater from a carwash facility or operation (including fundraisers); from any vehicle washing, cleaning, or maintenance at any new or used automobile or other vehicle dealership, rental agency, body shop, repair shop, or maintenance facility; or from any washing, cleaning, or maintenance of any business or commercial or public service vehicle, including a truck, bus, or heavy equipment;

(9) Wastewater from a commercial mobile power washer or from the washing or other cleaning of a building exterior that contains any soap, detergent, degreaser, solvent, or any other harmful cleaning substance, or that is at a temperature that has been elevated by induced heating;

(10) Wastewater from the washdown or other cleaning of streets and pavement that contains any harmful quantity of soap, detergent, solvent, degreaser, emulsifier, dispersant, or any other harmful cleaning substance, or that is at a temperature that has been elevated by induced heating; or any wastewater from the washdown or other cleaning of any pavement or surface where any spill, leak, or other release of oil, motor fuel, or other petroleum or hazardous substance has occurred, unless all harmful quantities of the cleaning agents and all substances released by the cleaning agents have been previously removed, and approved by the Designated City Official (DCO) for discharge to the MS4 rather than the sanitary sewer;

(11) Effluent from a cooling tower, condenser, compressor, emissions scrubber, emissions filter, or the blowdown from a boiler;

(12) Filter backwash from any water treatment system, contact or non-contact cooling water, or unpermitted condensate;

(13) Swimming pool, spa or fountain water unless proof of dechlorination or removal of chemicals is provided by the discharger; or filter backwash from, or waste from the construction, maintenance or repair of a swimming pool, spa, or fountain;

(14) Runoff or washdown water from any animal pen or yard, kennel, or pet, foul or livestock containment area;

(15) Ready-mixed concrete, mortar, ceramic, or asphalt base material, hydromulch material, or any wastewater or substance from the cleaning of any vehicle or equipment containing, or used in transporting or applying, such material;

(16) Discharges from water line disinfection by superchlorination or other means if the total residual of the disinfectant is higher than EPA's Primary Drinking Water Standards Maximum Residual Disinfectant Level Goal (MRDLG);

(17) Waste water from the testing of fire protection systems;

(18) Solid or liquid substances which may cause obstruction to the flow in storm sewers or other interference with the proper operation of the storm water system such as, but not limited to: ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshings, entrails, lime slurry, lime residues, slops, chemical residues, paint residues, bulk solids, waste paper or floatables; and

(19) Releases from a petroleum storage tank (PST) or chemical storage tank, or any leachate or runoff from soil contaminated by a leaking PST or chemical storage tank, or any discharge of pumped, confined, or treated wastewater from the remediation of any such PST or chemical storage tank release.

(d) No person may dispose of, release, introduce or cause to be introduced into the MS4 any harmful quantity of sediment, silt, earth, soil, or other material associated with clearing, grading, excavation, landfilling, or other construction activities (including any placement, movement, removal, or disposal of soil, rock, or other earth materials) in excess of what could be retained on site or captured by employing sediment and erosion control measures to the maximum extent practicable.

(e) No person may connect a line conveying sanitary sewage, domestic, industrial or a combination of both to the MS4, or allow such a connection to continue.

Sec. 6.04.009 Industrial or Construction Activities Discharges

GENERAL REQUIREMENTS

(a) All operators meeting the definition of a small or large construction site must comply with all terms and conditions of the TPDES construction general permit. All operators of construction sites, regardless of size or TPDES permit requirements, must use best management practices to control and reduce the discharge to the MS4 and to the surface water in the State or the waters of the U.S., of sediment, silt, earth, soil, and other material associated with clearing, grading, excavation, landfilling, and other construction activities to the maximum extent practicable. Such best management practices may include, but not be limited to, the following measures:

(1) Ensuring that existing vegetation is preserved where feasible and that disturbed portions of the site are stabilized as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased. Stabilization measures may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures;

(2) Use of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from the site to the maximum extent practicable;

(3) Minimization of the tracking of sediments off-site by vehicles, the generation of dust, and the escape of other windblown waste from the site;

(4) Prevention of the discharge of building materials, including cement, lime, concrete, asphalt and mortar, to the MS4, surface water in the state or the waters of the U.S.;

(5) General good house-keeping measures to prevent and contain spills of paints, solvents, fuels, septic waste, and other hazardous chemicals and pollutants associated with construction, and to assure proper cleanup and disposal of any such spills in compliance with state, federal, and local requirements;

(6) Implementation of proper waste disposal and waste management techniques, including covering waste materials, minimizing ground contact with hazardous chemicals and trash, and installing and maintaining covered receptacles for rubbish and garbage to assure that such waste materials are not blown or carried by rainfall runoff from the site;

(7) Timely maintenance of vegetation, erosion and sediment control measures, and other best management practices to maintain them in good and effective operating condition;

(8) Installation of structural measures during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. Structural measures may include, but not be limited to, the following: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetative swales and natural depressions; other velocity dissipation devices; infiltration of runoff on site; and sequential systems which combine several practices. Operators of construction sites are responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site, and for a period of two years after final acceptance by the City, unless the area is disturbed by new owners; and

(9) The current owner(s) of the property is responsible for the maintenance of the permanent stabilization structures listed above to ensure proper operation, water quality protection and flood control.

(b) Qualified personnel (provided by the operator of the construction site) must inspect disturbed areas of any construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site, at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event that is 0.5 inches or greater. Inspections may be performed once every seven (7) calendar days, on a specifically defined day, regardless of whether or not there has been a rainfall event. All erosion and sediment control measures and other identified best management practices must be observed in order to ensure that they are operating correctly and are effective in preventing significant impacts to receiving waters and the MS4. Based on the results of the inspection, best management practices must be modified as appropriate, and as soon as is practicable.

(c) Any owner of a site of construction activity, whether or not he/she is an operator, is jointly and severally responsible for compliance with the requirements in this Section.

(d) Any contractor or subcontractor on a site of construction activity, who is not an owner or operator, but who is responsible under his/her contract or subcontract for implementing a best management practices control measure, is jointly and severally responsible for any willful or negligent failure on his/her part to adequately implement that control measure.

Sec. 6.04.010 One-Acre or Greater Land Disturbances

All operators of sites of construction activity, including clearing, grading, excavation, and landfilling activities, that result in the disturbance of one or more acres of total land area, or that are part of a larger common plan of development or sale within which one or more acres of total land area are disturbed, and who are required to obtain a TPDES permit for storm water discharges associated with construction activity, must comply with the following requirements (in addition to those in Section 6.04.009):

(a) All operators must obtain coverage for storm water discharges from a construction site under the TPDES General Permit, must post a signed copy of its Notice of Intent (NOI) and/or Construction Site Notice (CSN) on the construction site prior to the commencement of construction activities. The notices required to be posted will depend on the size of the construction project and is explained in the TPDES General Permit for construction activities. The NOI and/or CSN must be posted in a location where it

is safely and readily available for viewing by the general public, local, state, and federal authorities. For large construction sites, a signed copy of the NOI and CSN from all operators must be submitted to the DCO seven (7) days prior to the commencement of construction activities. For small construction sites, a signed copy of the CSN from all operators must be submitted to the DCO at least two (2) days prior to the commencement of construction activities.

(b) A Storm Water Pollution Prevention Plan (SWPPP) must be prepared and implemented in accordance with the requirements of the TPDES permit issued for storm water discharges from the construction site, and with any additional requirements imposed by or under this Article and any other city ordinance.

(c) The SWPPP must be completed and implemented prior to the beginning of construction activities. The SWPPP must be updated and modified as required by the TPDES permit and this Article.

(d) The operator must submit the SWPPP and any modifications thereto to the DCO for review prior to commencement of or during construction activity at the site.

(e) If, upon the DCO's review of the SWPPP (or any modification to the SWPPP) and any site inspection that the DCO may conduct, the DCO determines that the SWPPP does not comply with the requirements of the TPDES permit issued for storm water discharge from the construction site, or any additional requirement imposed by or under this Article, the DCO may issue an order prohibiting the commencement, or the continuation, of any construction activity at the site. Also, if at any time the DCO determines that the SWPPP is not being fully implemented, the DCO may similarly issue an order prohibiting the continuation of any construction activity at the site.

(f) Upon review of the SWPPP and any site inspection that is conducted, the DCO may deny approval of any building permit, grading permit, or any other City approval necessary to commence or continue construction, or to assume occupancy, on the grounds that the SWPPP does not comply with the requirements of the TPDES permit issued for storm water discharge from the construction site, or any additional requirement imposed by or under this Article. Also, if at any time the DCO determines that the SWPPP is not being fully implemented, the DCO may similarly deny approval of any building permit, grading permit, or any other City approval necessary to commence or continue construction, or to assume occupancy, at the site.

(g) The operator must make a copy of the SWPPP and any modification thereto available to the DCO at the construction site upon request.

(h) The DCO may notify the operator at any time that the SWPPP does not meet the requirements of the TPDES permit issued for storm water discharges from the construction site, or any additional requirement imposed by or under this Article. Such notification must identify those provisions of the permit or Article which are not being met by the SWPPP, and identify which provisions of the SWPPP require modifications in order to meet such requirements. Within seven (7) calendar days of such notification from the DCO (or as otherwise provided by the DCO), the operator must make the required changes to the SWPPP and submit to the DCO a written certification that the requested modifications have been made.

(i) The operator must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the MS4, or surface water in the State, or the waters of the U. S., or if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants, or in achieving the general objective of controlling pollutants in storm water discharges associated with construction activity.

(j) Qualified personnel (provided by the operator) must inspect at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of the storm that is 0.5 inches or greater: disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site. Inspections may be performed once every seven (7) calendar days, on a specifically defined day, regardless of whether or not there has been a rainfall event. Disturbed areas and areas used for storage of materials that are exposed to precipitation must be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures and best management practices must be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters and the MS4. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

(k) Based on the results of the inspections required by subsection 6.04.010(j), the site description and/or the pollution prevention measures identified in the SWPPP must be modified as appropriate, but in no case later than seven (7) calendar days following the inspection. Such modifications must provide for timely implementation of any changes to the SWPPP within seven (7) calendar days following the inspection. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

(1) A report summarizing the scope of any inspection required by subsection 6.04.010(k), and the name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with appropriate plan revisions must be made and retained as part of the SWPPP for at least three (3) years from the date that the site is finally stabilized and the required NOT has been submitted. The report must identify any incidence of noncompliance; or if the report does not identify any incidence of noncompliance, the report must contain a certification that the facility is in compliance with the SWPPP, the TPDES permit, and this Article. The report must be signed by the person responsible for preparing the report.

(m) The operator must retain copies of any SWPPP and all reports required by this Article or by the TPDES permit for the site, for a period of at least three (3) years from the date that the site is finally stabilized, and the required CSN or Notice of Termination (NOT) has been submitted. Such plans, reports and records must be made available to the DCO upon request.

(n) Where a site has been finally stabilized and all storm water discharges from construction activities that are authorized by this Article and by the TPDES permit are eliminated, or where the operator of all storm water discharges from the construction site changes, the operator of the construction site must submit to the DCO a copy of the CSN or NOT required by the TPDES Permit.

Sec. 6.04.011 Storm Water Discharges Associated with Industrial Activity

(a) All operators of municipal landfills; hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and

Reauthorization Act of 1986 (SARA) 42, USC § 11023; and industrial facilities that are sources of storm water discharges associated with industrial activity, and that the DCO determines are contributing a substantial pollutant loading to the MS4, must comply with the following requirements:

(1) Any operator who intends to obtain coverage for storm water discharge associated with industrial activity under the TPDES Storm Water Multi-Sector General Permit for Industrial Activities ("the Multi-Sector General Permit") or an NPDES permit for oil and gas industrial activities, must submit a signed copy of its Notice of Intent (NOI) to the DCO at least fifteen (15) calendar days prior to the commencement of the industrial activity at the facility. If the industrial activity requiring a permit is already underway upon the effective date of this Article, a copy of the permit assignment notice or the NOI must be submitted within thirty (30) calendar days. For storm water discharges associated with industrial activity where the operator changes, a copy of the required NOI must be submitted at least two (2) calendar days prior to the change. Facilities that qualify for the No Exposure Certification (NEC) must submit copies of the certification to the DCO.

(2) A SWPPP must be prepared and implemented in accordance with the requirements of the appropriate NPDES or TPDES permit issued for storm water discharges from the industrial facility, and with any additional requirement imposed by or under this Article and any other city ordinance.

(3) The SWPPP must be completed prior to the submittal of the NOI to the DCO and, for a new industrial operation, prior to the commencement of the industrial activity at the facility. The SWPPP must be updated and modified as required by the appropriate NPDES or TPDES permit and this Article.

(4) The DCO may require the operator to submit the SWPPP, and any modifications thereto, to the DCO for review. Such submittal and review of the SWPPP may be required by the DCO prior to commencement of or during industrial activity at the facility.

(5) Upon review of the SWPPP and any site inspection that is conducted, the City may deny approval of any application for a permit, or any other City approval necessary to commence or continue the operation of the facility, on the grounds that the SWPPP does not comply with the requirements of the appropriate NPDES or TPDES permit issued for storm water discharges from the industrial facility, or any additional requirement imposed by or under this Article. Also, if at any time the DCO determines that the SWPPP is not being fully implemented, the City may similarly deny approval of any application for a permit, or any other City approval necessary to commence or continue operation of the industrial facility.

(6) The SWPPP, with any modifications attached, must be retained at the industrial site from the date of commencement of operations until all storm water discharges associated with industrial activity at the facility are eliminated, and the required NOT has been submitted in accordance with the appropriate NPDES or TPDES permit.

(7) The operator must make a copy of the SWPPP and any modification thereto available to the DCO upon request.

(8) The DCO may notify the operator at any time that the SWPPP does not meet the requirements of the appropriate NPDES or TPDES permit issued for storm water discharges from the industrial facility, or any additional requirement imposed by or under this Article. Such notification must identify those provisions of the permit or Article which are not being met by the SWPPP, and identify which provisions of the SWPPP require modifications in order to meet such

requirements. Within seven (7) calendar days of such notification from the DCO (or as otherwise provided by the DCO), the operator must make the required changes to the SWPPP and submit to the DCO a written certification that the requested modifications have been made.

(9) The operator must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the MS4, surface water in the State, or the waters of the U.S., or if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants, or in otherwise achieving the general objective of controlling pollutants in storm water discharges associated with industrial activity.

(10) Qualified personnel (provided by the operator) must conduct comprehensive site compliance evaluations including, but not limited to, inspection of equipment and areas of the facility specified in the SWPPP as required by the appropriate NPDES or TPDES permit at intervals of no less than once per year. A set of tracking or follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspection must be maintained and made available to the DCO upon request.

(11) Based on the results of the compliance evaluation, the description of potential pollutant sources and the pollution prevention measures and controls identified in the SWPPP must be modified as appropriate, but in no case later than fifteen (15) calendar days following the inspection. Such modifications must provide for timely implementation of any changes to the SWPPP within twelve (12) weeks after the compliance evaluation.

(12) A report summarizing the scope of any site evaluation required by the appropriate NPDES or TPDES permit, and the name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with appropriate plan revisions must be made and retained as part of the SWPPP for at least three (3) years after all storm water discharges from the facility are eliminated and the required NOT has been submitted. The report must identify any incidence of noncompliance; or if the report does not identify any incidence of noncompliance, the report must contain a certification that the facility is in compliance with the SWPPP, the appropriate NPDES or TPDES permit, and this Article. The report must be signed by the person responsible for preparing the report.

(13) If the industrial facility is required by the appropriate NPDES or TPDES permit to conduct monitoring, records of the monitoring results must be retained at the facility and made available to the DCO upon request.

(14) By written notice, the DCO may require any industrial facility identified in accordance with this Section to implement a monitoring program at its expense that includes the submission of quantitative data on the following constituents:

- (a) any pollutants limited in effluent guidelines subcategories; where applicable;
- (b) any pollutant listed in an existing NPDES or TPDES permit for the facility;

(c) oil and grease, COD, pH, BOD5, TSS, total phosphorus, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen; and

(d) information on discharges required under 40 CFR 122.21 (g)

(7) (ii), (iii) and (iv).

Written reports of any of such monitoring results must be retained at the facility and made available to the DCO upon request.

(15) By written notice, the DCO may require any industrial facility identified in this Section to conduct semi-annual or annual monitoring of storm water discharges, or the DCO may specify an alternative monitoring frequency and/or specify additional parameters to be analyzed. Written reports of any of such monitoring results must be retained at the facility and made available to the DCO upon request.

(16) The operator must retain copies of any SWPPP and all reports and records required by this Article or by the appropriate NPDES or TPDES permit for the facility, for a period of at least three (3) years after storm water discharges associated with industrial activity at the facility are eliminated, or that operator is no longer operating the facility, and the required NOT has been submitted. Such plans, reports and records must be made available to the DCO upon request.

(17) No storm water discharge associated with industrial activity may contain any of the following hazardous metals in a concentration that exceeds either the maximum allowable concentrations (in mg/l) listed below for each metal or the maximum concentrations for each metal allowed under current state law, whichever limit is more stringent:

| | Daily | Daily | Daily Metal |
|-----------|---------|-----------|-------------|
| | Average | Composite | Maximum |
| | | | |
| Arsenic | 0.1 | 0.2 | 0.3 |
| Barium | 1.0 | 2.0 | 4.0 |
| Cadmium | 0.05 | 0.1 | 0.2 |
| Chromium | 0.5 | 1.0 | 5.0 |
| Copper | 0.5 | 1.0 | 2.0 |
| Lead | 0.5 | 1.0 | 1.5 |
| Manganese | 1.0 | 2.0 | 3.0 |
| Mercury | 0.005 | 0.005 | 0.01 |
| Nickel | 1.0 | 2.0 | 3.0 |
| Selenium | 0.05 | 0.1 | 0.2 |
| Silver | 0.05 | 0.1 | 0.2 |
| Zinc | 1.0 | 2.0 | 6.0 |

(18) Where all storm water discharges associated with industrial activity that are authorized by this Article, and by the NPDES or TPDES permit for those discharges from industrial activities, are eliminated, or where the operator of storm water discharges associated with industrial activity at a facility changes, the operator of the facility must submit to the DCO a NOT that includes the information required for notices of termination by the appropriate NPDES or TPDES Permit.

(b) Any owner of a facility with a storm water discharge associated with industrial activity to which subsection 6.04.011(a) applies, whether or not he/she is an operator of the facility, is jointly and severally responsible for compliance with the best management practices (BMP) measures required in the SWPPP for the facility and for compliance with the effluent limitations for hazardous metals specified in subsection 6.04.011(a)(17) above.

(c) Upon request by the DCO, all owners and operators of any facility that experience a problem complying with the requirements of this Article, or any applicable NPDES or TPDES permit issued for storm water discharges from the industrial facility, must consult with the DCO and any third-party designated by the City in an attempt to achieve compliance as soon as practicable. If compliance is not achieved to the City's satisfaction, the City may, at its discretion, report the noncompliance to EPA and/or the State, and/or the City may itself undertake any enforcement action authorized in this Article. Exercise of the City's option for consultation under this shall not be a bar against, or prerequisite for, taking any other enforcement action against any owner or operator of the facility.

Sec. 6.04.012 Accidental Discharge or Spill of a Pollutant, Including a Hazardous Substance

(a) As soon as any person responsible for a facility or activity or any person who is responsible for emergency response for a facility or activity has any information of a known or suspected accidental discharge or spill that causes or may cause a pollutant to enter into storm water, a MS4, or water in the State, that person must: take all necessary steps to ensure the discovery, containment, and cleanup of the discharge; as soon as possible and no later than twenty-four (24) hours after the discharge, notify the TCEQ and any other state or federal agency that it is required by law to be notified; and immediately notify the City if the discharge may adversely affect a public or private source of drinking water or a City road, including a right-of-way, and provide information as to the location, identification, concentration, and volume of the discharge as well as the measures the responsible person is taking to contain and clean up the discharge.

(b) In the event of release of hazardous materials, the person responsible for the facility or operation, or responsible for emergency response for a facility or operation, shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice, addressed and mailed to City of Manor, P.O. Box 387, Manor, Texas 78653 within three (3) business days of the phone notice.

(c) If the discharge of prohibited materials originates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its reoccurrence. Such records shall be retained for at least three (3) years.

Sec. 6.04.013 Compliance Inspection and Sampling; Right of Entry

(a) Pursuant to Texas Water Code Section 26.171, City officials, employees, agents, and representatives are entitled to enter and inspect the premises of any person to determine whether or not:

(1) The quality of the water meets the state water quality standards adopted by the TCEQ;

(2) persons discharging effluent into the public water located in the areas in which the City has jurisdiction have obtained permits for discharge of the effluent; and

(3) persons who have permits are making discharges in compliance with the requirements of the permits.

(b) Pursuant to Texas Water Code Section 26.173, City officials, employees, agents, and representatives are entitled to enter any public or private property within the City's territorial jurisdiction to make inspections and investigations of conditions relating to water quality. In exercising

this power, City officials, employees, agents, and representatives are subject to the same provisions and restrictions set forth in Texas Water Code Section 26.014 with respect to the TCEQ.

(c) City officials, employees, agents, representatives and contractors are entitled to enter public or private property at any reasonable time to investigate or monitor, or if the person responsible is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state.

(d) City officials, employees, agents, representatives and contractors who enter private property must:

(1) Observe the property's rules and regulations concerning safety, internal security, and fire protection; and

(2) If the property has management in residence, notify management in person or the person then in charge in that person's presence and exhibit proper credentials.

(e) City officials, employees, agents, representatives, and contractors are entitled to enter and inspect premises as often as may be necessary to determine compliance with this Article. If a responsible person has security measures in force which require proper identification and clearance before entry into its premises, the responsible person shall make the necessary arrangements to allow access to City officials, employees, agents, representatives, and contractors.

(f) Responsible persons must allow City officials, employees, agents, representatives, and contractors ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of a TPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

(g) If the premises are occupied, the City official, employee, agent, representative or contractor shall present credentials and request entry. If the premises are unoccupied, the City official, employee, agent, representative or contractor shall attempt to contact a responsible person and request entry before entering.

(h) At the written or oral request of the responsible person of a facility or vessel to be inspected or sampled, any temporary or permanent obstruction to safe and easy access to the facility or vessel to be inspected or sampled must be promptly removed by the responsible person at the written or oral request of a City official, employee, agent, representative, or contractor and must not be replaced.

(i) A delay of thirty (30) minutes or more in allowing a City official, employee, agent, representative, or contractor access to a permitted facility is a violation of a storm water discharge permit and of this Article. A person who is the owner or operator of a facility with a TPDES permit to discharge storm water associated with industrial activity violates this Article if the person denies City officials, employees, agents, representatives and contractors reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this Article.

(j) If a City official, employee, agent, representative, or contractor has been refused access to any part of the premises from which storm water is discharged, and is able to demonstrate probable cause to believe that there may be a violation of this Article, or that there is a need to inspect or sample as part of a routine inspection and sampling program designed to verify compliance with this Article or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the City official, employee, agent, representative, or contractor may seek issuance of a search

warrant from any court of competent jurisdiction, in accordance with the enforcement policy adopted by the City.

Sec. 6.04.014 Reports of Violations

(a) Citizens may, and are encouraged to report any spills, releases, illicit connections, or any other instances of anyone discharging pollutants into the MS4, surface water in the state, or the waters of the U.S., and any other violation of this Article to the DCO.

(b) The DCO will keep the identity of the reporting citizen confidential, and upon request, inform the reporting citizen of any action undertaken by the City in response to the citizen's report.

(c) The Operator and the Owner of any commercial or industrial activity must report any spills, releases, illicit connections, or other instances where pollutants are discharged into the MS4, surface water in the state, or the waters of the U.S. and any other violation of this Article for which they are responsible to the City in accordance with the following:

(1) A hazardous and/or toxic material spill or release must be immediately reported to the Manor Fire Department at 911.

(2) Other instances where pollutants are discharged into the MS4, surface water in the state, or the waters of the U.S. by spill, release, illicit connections or other means must be reported to the DCO, available after business hours through 911.

(d) Both the Operator and the Owner of any commercial or industrial activity, where a spill or a release of a hazardous/toxic material or a substance of a polluting nature has occurred, are responsible for proper notification of the incident to the appropriate county, state, and federal agency. The reporting of a spill/release to the City does not release or remove any obligation of the Owner or Operator from reporting to appropriate county, state and federal officials.

These officials may include, but not be limited to:

- (1) National Response Center.
- (2) Texas Commission on Environmental Quality.
- (3) U.S. Environmental Protection Agency.
- (4) Travis County Emergency Services District #12.
- (5) Texas Department of Parks and Wildlife.
- (6) U.S. Fish & Wildlife Service.

Sec. 6.04.015 Discharge Reporting and Cleanup

(a) A discharger of a reportable quantity of a hazardous or extremely hazardous substance into the MS4, surface water in the state, or the waters of the U.S., must telephone 911 and notify the DCO and the Fire Department immediately after becoming aware of the discharge. A discharger of any of the following substances into the MS4, surface water in the state, or the waters of the U.S. must telephone and notify the DCO concerning the incident within one (1) hour after its occurrence, or the first knowledge of its occurrence:

- (1) An amount of oil that either:
 - (A) Violates applicable water quality standards; or

(B) Causes a film or sheen upon, or discoloration of, the surface of the water or an adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon an adjoining shoreline.

(2) A harmful quantity of any other pollutant that is not a hazardous or extremely hazardous substance.

(b) The notification required by subsection 6.04.015(a) must include all of the following information:

(1) The identity or chemical name of the substance released and whether the substance is an extremely hazardous substance.

(2) The exact location of the discharge, including any known name of the waters involved or threatened and any other environmental media affected.

(3) The time and duration of the discharge at the moment of notification.

(4) An estimate of the quantity and concentration, if known, of the substance discharged.

(5) The source of the discharge.

(6) Any known or anticipated health risks associated with the discharge and, where appropriate, advice regarding medical attention that may be necessary for exposed individuals.

(7) Precautions that should be taken as a result of the discharge.

(8) Steps that have been taken to contain or clean up the discharged substance and related material and to minimize the impact of the discharge.

(9) The name and telephone number of each person to be contacted for further information.

(c) Within ten (10) days after a discharge under subsection 6.04.015(a), the discharger must, unless expressly waived in writing by the DCO, submit a written report containing each item of information required by subsection 6.04.015(b), as well as the following additional information:

(1) The ultimate duration, concentration, and quantity of the discharge.

(2) All actions taken to respond to, contain, and clean up the discharged substances, and all precautions taken to minimize the impact of the discharge.

(3) Any known or anticipated acute or chronic health risks associated with the discharge.

(4) Where appropriate, advice regarding medical attention necessary for exposed individuals.

(5) The identity of each governmental entity and private sector representative responding to the discharge.

(6) Measures taken or to be taken by the discharger to prevent similar future occurrences.

(d) The notifications required by subsections 6.04.015(b) and (c) do not relieve the discharger from any expense, loss, damage, or other liability that may be incurred as a result of the discharge, including any liability for damage to the city, to natural resources, or to any other person or property. The notifications also do not relieve the discharger from any fine, penalty or other liability that may be imposed under this Article or under state or federal law.

(e) A release report required by a state or federal regulatory authority that contains the information described in subsections 6.04.015(b) and (c) meets the reporting requirements of subsection 6.04.015(c), upon submittal of the report to the DCO.

(f) The owner or operator of any facility, vehicle, or other source responsible for a discharge described in subsection 6.04.015(a) must:

(1) Comply with all state, federal, and local law requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the discharge; and

(2) Reimburse the City for any costs incurred by the City in responding to the discharge.

(g) A discharger commits an offense if he/she:

(1) Fails or refuses to report the discharge within the time required by subsection 6.04.015(a) after becoming aware of the discharge;

(2) Knowingly provides false or incorrect information in a notification or report required under this Section;

(3) Fails or refuses to take the necessary action to clean up pollution or damage to the MS4, the surface water in the State or waters of the U.S., or to other property, that is caused by the discharge; or

(4) Fails or refuses to provide driver's license or other identity information when requested by the DCO.

Sec. 6.04.016 Violation; Penalties; Enforcement

(a) A person commits an offense if the person violates any provision or fails to comply with any of the requirements of this Article.

(b) WARNING NOTICE

When the DCO finds that any person has violated, or continues to violate, any provision of this Article, or any order issued hereunder, the DCO may serve upon that person a written Warning Notice, specifying the particular violation believed to have occurred and requesting the discharger to immediately cease any offending discharge. Resolution of the matter in response to the Warning Notice in no way relieves the discharger of liability for any violations occurring before or after receipt of the Warning Notice. Issuance of a Warning Notice shall not be a bar against, or a prerequisite for, taking any other action against the discharger.

(c) NOTIFICATION OF VIOLATION

(1) When the DCO finds that any person has violated, or continues to violate, any

provision of this Article, or any order issued hereunder, the DCO may serve upon that person a written Notice of Violation.

(2) When required by the DCO, an explanation of the cause of the violation and a plan for the satisfactory correction and prevention of reoccurrence, including specific required actions, must be submitted by the discharger to the DCO. This response may be verbal, or if required, must be in writing, but within the time specified by the DCO.

(3) Submission of an explanation and/or plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the Notice of Violation. Issuance of a Notice of Violation shall not be a bar against, or a prerequisite for, taking any other action against the discharger.

(d) COMPLIANCE ORDERS

(1) When the DCO finds that any person has violated, or continues to violate, any provision of this Article, or any order issued hereunder, the DCO may issue an order to the discharger directing that the discharger come into compliance within a specified time limit.

(2) The City may suspend water service, sanitary sewer service, and/or MS4 discharge access to a discharger that does not come into compliance within the time provided.

(3) Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring, and management practices designed to minimize the amount of pollutants discharged to the MS4, surface water in the state or the waters of the U.S.

(4) A Compliance Order may not extend the deadline for compliance established by a state or federal standard or requirement, nor does a compliance order relieve the person of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the discharger.

(e) CEASE AND DESIST ORDERS

(1) When the DCO finds that any person has violated, or continues to violate, or threatens to violate any provision of this Article, or any order issued hereunder, or that the person's past violations are likely to recur, the DCO may issue an order to the discharger directing the discharger to cease and desist all such violations and directing the discharger to:

(A) Immediately comply with all requirements; and

(B) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

(C) Issuance of a cease and desist order shall not be a bar against, or a prerequisite

for, taking any other action against the discharger.

(f) EMERGENCY SUSPENSION OF UTILITY SERVICES AND MS4 ACCESS

(1) The DCO may, without prior notice, suspend water service, sanitary sewer service, and/or MS4 discharge access to a person discharging to the MS4, surface water in the state, waters of the U.S., or City owned wastewater treatment facilities when such suspension is necessary to stop an actual or threatened discharge which:

(A) Presents or may present imminent and substantial danger to the environment or to the health or welfare of persons; or

(B) Presents or may present imminent and substantial danger to the MS4, surface water in the state or the waters of the U.S.

(2) When the DCO determines that City-provided water and/or sanitary sewer service/or MS4 access needs to be suspended pursuant to 6.04.016(f), the DCO shall suspend the service or access as soon as practicable.

(3) As soon as is practicable after the suspension of service or MS4 discharge access, the DCO must notify the discharger of the suspension in person or by certified mail, return receipt requested, and shall order the discharger to cease the discharge immediately.

(4) The City shall not reinstate suspended services or MS4 access to the discharger until:

(A) The discharger presents proof, satisfactory to the DCO, that the non- complying discharge has been eliminated and its cause determined and corrected;

(B) The discharger pays the City for all costs the City incurred in responding to, abating, and remediating the discharge or threatened discharge; and

(C) The discharger pays the City for all costs the City has incurred to suspend the services and will incur in reinstating service or access, including any reconnection fees and account balances that are due.

(5) A discharger whose service or access has been suspended or disconnected may appeal such enforcement action to the DCO, in writing, within ten (10) days of notice of the suspension.

(6) The remedies provided by this Section are in addition to any other remedies set out in this Article. Exercise of this remedy shall not be a bar against, or a prerequisite for, taking other action against a discharger.

(g) NON-EMERGENCY SUSPENSION OF UTILITY SERVICE AND MS4 ACCESS

(1) The DCO may terminate the City-provided water supply, sanitary sewer connection, and/or MS4 access of any person discharging to the MS4 in violation of this Section, if such termination would abate or reduce the illicit discharge.

(2) The DCO will notify a discharger of the proposed termination of its water supply, sanitary sewer connection, and/or MS4 access. The discharger may petition the DCO for a reconsideration and hearing pursuant to this Article.

(3) The City shall not reinstate suspended services or MS4 access to the discharger until:

(A) The discharger presents proof, satisfactory to the DCO, that the non- complying discharge has been eliminated and its cause determined and corrected; and

(B) The discharger pays the City for all costs the City has incurred to suspend the services and will incur in reinstating service or access, including any reconnection fees and account balances that are due.

(4) The remedies provided by this Section are in addition to any other remedies set out in this Article. Exercise of this remedy shall not be a bar against, or a prerequisite for, taking other action against a discharger.

(5) A person commits an offense if the person reinstates water service, sanitary sewer service, and or MS4 access to premises terminated pursuant to this Section, without the prior approval of the DCO.

(6) A person commits an offense if he utilizes the water service, sanitary sewer service or MS4 access of another person or premises, without their permission, or in violation of an order from the City.

(7) The remedies provided by this Section are in addition to any other remedies set out in this Article. Exercise of this remedy shall not be a bar against, or a prerequisite for, taking other action against a discharger.

(h) ABATEMENT, REMEDIATION, AND RESTORATION ORDERS

(1) When the DCO finds that a person has violated, or continues to violate, any provision of this Article, or any order issued hereunder, and that such violation has adversely affected the MS4, the surface water in the state, or the waters of the U.S., the DCO may require the discharger to undertake and implement any appropriate action to abate and/or remediate any adverse effects of the violation upon the MS4, the surface water in the state, or the waters of the U.S., and/or to restore any part of the MS4, the surface water in the state, or the waters of the U.S.

(2) Such abatement, remedial, and restoration action may include, but not be limited to: monitoring, assessment, and evaluation of the adverse effects and determination of the appropriate remedial, abatement, and/or restoration action; confinement, removal, cleanup, treatment, and disposal of any discharged or released pollution or contamination; prevention, minimization, and/or mitigation of any damage to the public health, welfare, or the environment that may result from the violation; restoration or replacement of any public or private property or natural resources damaged by the violation.

(3) If no person is found to have caused the violation, the owner of any property where the violation occurred and consequent contamination, shall be the responsible person for the required abatement, cleanup and/or remediation.

(4) The City may, at its discretion, perform such abatement, cleanup and/or remediation, and collect from the responsible person, all expenses incurred during such activities.

(5) The DCO may require that the abatement, remediation, and/or restoration be accomplished

on a specified compliance schedule and/or be completed within a specified period of time. An order issued under this does not relieve the discharger of liability for any violation, including any continuing violation. Issuance of an order under this Section shall not be a bar against, or a prerequisite for, taking any other action against any responsible party.

(i) STOP WORK ORDERS

(1) When the DCO finds that any operator of a construction site has violated, threatens to violate, or continues to violate, any provision of this Article, or any order issued hereunder, the DCO may issue a Stop Work Order to the operator, and require that a copy of the Stop Work Order be posted at the construction site and distributed to all City departments and divisions whose decisions affect any activity at the site.

(2) Unless express written exception is made by the DCO, the Stop Work Order shall prohibit any further construction activity, or any commencement of construction activity, at the site and shall bar any further inspection or approval by the City associated with a building permit, grading permit, or any other City approval necessary to commence or continue construction or to assume occupancy at the site. Issuance of a Stop Work Order shall not be a bar against, or a prerequisite for, taking any other action against the discharger.

(j) JUDICIAL ENFORCEMENT REMEDIES

(1) When the DCO finds that any person has violated, or continues to violate any provision of this Article, or any order issued hereunder, the DCO may petition the Municipal Court through the City Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of a permit, order, or other requirement imposed by this Article on activities of the discharger.

(2) The DCO may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the user to conduct environmental remediation.

(3) A petition for Injunctive Relief shall not be a bar against, or a prerequisite for, taking any other action against a discharger.

(4) Any person who violates any of the provisions of this Article shall be fined no more than One Thousand Dollars (\$1,000.00) for each violation of this Article. Each day that a violation is allowed to exist shall constitute a separate offense.

(5) The City Attorney is authorized to commence an action for appropriate legal or equitable relief in a court of competent jurisdiction. Such relief may include:

(A) An injunction to prevent a violation of this Article;

(B) Recovery for damages to the storm drainage system resulting from a violation of this Article;

(C) Recovery for expenses incurred by the City in responding to a violation of this Article;

(D) A civil fine of up to one thousand dollars (1,000.00) per day for a violation of Sections of this Article; and

(E) All other damages, costs and remedies to which the City may be entitled.

(6) The remedies listed in this Article are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the City to seek cumulative remedies.

Sec. 6.04.017 Violations Deemed a Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Article is a threat to public health, safety and welfare, and is declared and deemed a nuisance.

AN ORDINANCE OF THE CITY OF MANOR, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF MANOR, TEXAS BY ADDING ARTICLE 6.05 TO CHAPTER 6, HEALTH AND SANITATION, ESTABLISHING REQUIRMENTS FOR POST-CONSTRUCTION STORM WATER FACILITY MAINTENANCE AND OBLIGATIONS; PROVIDING FOR ENFORCEMENT AND A PENALTY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

Whereas, the City Council of the City of Manor (the "City") finds the establishment of postconstruction storm water facility maintenance requirements and obligations within the City will promote the general health, safety, and welfare of the City;

Whereas, the City Council of the City finds that the general health, safety, and welfare of the City will be protected and promoted by the adoption and enforcement of post-construction storm water facilities maintenance requirements and regulations to enhance and protect the environment, ecology and waterways of and around the City;

Whereas, the increase in impervious surfaces such as rooftops, roads and parking lots can increase urban runoff and have a detrimental impact on aquatic ecosystems due to increased concentrations of sediment, nutrients, pesticides, road salts, heavy metals, pathogenic bacteria and petroleum hydrocarbons;

Whereas, storm water runoff from developed areas can potentially contribute significant amounts of pollution to lakes and streams; and

Whereas, the City Council of the City desires to adopt post-construction storm water facilities regulations to ensure that best management practices are incorporated into development projects and provide for the long-term operation and maintenance of post-construction storm water facilities;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANOR, TEXAS, THAT:

Section 1. <u>Findings.</u> The forgoing recitals are incorporated into this Ordinance as true and correct findings of fact.

Section 2. <u>Amendment of Code of Ordinances.</u> The City Council hereby amends Chapter 6 Health and Sanitation, of the City's Code of Ordinances to add a new *Article 6.05. Storm Water Facility Maintenance* section, attached hereto as Exhibit "A" and incorporated herein for all purposes.

Section 3. <u>Repealing All Ordinances in Conflict.</u> All other ordinances or parts of ordinances inconsistent or in conflict herewith, or to the extent of such inconsistency or conflict are hereby amended to the extent of such inconsistency or conflict. In the event of a conflict between this Ordinance and another ordinance of the City, this Ordinance shall control.

Section 4. <u>Savings Clause.</u> This City Council of the City of Manor, Texas does hereby declares that if any section, subsection, paragraph, sentence, clause, phrase, work or portion of this Ordinance is declared invalid, or unconstitutional, by a court of competent jurisdiction, that, in such event that it would have passed and ordained any and all remaining portions of this Ordinance without the inclusion of that portion or portions which may be so found to be unconstitutional or invalid, and declare that its intent is to make no portion of this Ordinance dependent upon the validity of any portion thereof, and that all said remaining portions shall continue in full force and effect.

Section 5. <u>Compliance With Open Meetings Act.</u> It is hereby officially found and determined that the meeting at which this Ordinance was considered was open to the public as required and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

Section 6. <u>Effective Date.</u> This Ordinance shall take effect immediately upon its adoption by the City Council and publication as required by the Local Government Code.

PASSED AND APPROVED on this the 15th day of November 2017.

CITY OF MANOR, TEXAS na Rita G. Jonse, Mayor

ATTEST:

luvia Tijeriha, City Secretary

Exhibit "A"

ARTICLE 6.05 STORM WATER FACILITY MAINTENANCE

Sec. 6.05.001 Definitions

<u>Best Management Practices (BMPs)</u>. Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from non-point sources, such as pollutants carried by urban runoff. These methods can be structural (e.g., devices, ponds, engineered or constructed to prevent or manage storm water) or non-structural (e.g., policies to reduce imperviousness). BMPs classified as "non-structural" are those that rely predominantly on behavioral changes rather than construction in order to be effective.

(a) "Structural" BMPs are engineered or constructed to prevent or manage storm water.

(b) BMPs also include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

<u>*Pollution*</u>. The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the State that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

<u>Storm Water</u>. Any surface flow, runoff, and discharge consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

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

<u>Texas Commission on Environmental Quality (TCEQ)</u>. The State of Texas agency by that name, the regional offices thereof, any state department, agency, or commission that may succeed to the authority of the TCEQ, and any duly authorized official of TCEQ or such successor agency.

Sec. 6.05.002 Purpose

Structural BMPs storm water facilities are permanent and used to control and manage pollution caused by runoff after construction is completed. The City desires to implement regulations requiring post-construction structural BMPs to be incorporated into development projects and provide for the long-term operation and maintenance of post-construction BMPs facilities and the ability to enforce such regulations.

Sec. 6.05.003 Operation, Maintenance And Repair of Storm Water Facilities

(a) Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

(1) The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or

control of the property (such as but without limitation: an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the City, as provided in subsections (b) and (c) below. The City shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. If a TCEQ Contributing Zone Plan or other TCEQ requirements are applicable to a specific permanent storm water facility, then the responsible party shall adhere to Attachment N of the Plan as specified by the TCEQ after completion of construction activities.

(b) Commercial and Multi-Family Properties

(1) The maintenance and repair of storm water facilities for commercial and multi-family properties shall be the responsibility of the property owner and the person in control of the property, if different from the property owner. The storm water facilities shall be maintained in good repair and working order in accordance with BMPs, this Ordinance, applicable state and federal law, and good engineering practices.

(2) At least once each year, the property owner or person in control of the property shall cause the storm water facility to be inspected and an inspection report provided by a person qualified to inspect storm water facilities. The inspection report shall be maintained on file at the property at all times and shall be made available to the City upon request. The property owner and/or person in control of the storm water detention facility shall promptly repair any deficiencies identified in the inspection report.

(3) Prior to the issuance of a Certificate of Occupancy or Certificate of Completion for a property upon which a storm water management facility will be located, the property owner must execute an access easement agreement with the City in a form acceptable to the City that binds all subsequent owners of land served by the storm water management facility, which allows the City or its contractor/agent access to the facility to periodically inspect if the facility is maintained in proper working condition and meets design standards and other provisions established by this Article. The easement agreement shall be recorded in the appropriate County land records.

(4) In the event that a storm water facility will be shared by two or more properties, in addition to the other requirements, the property owners sharing the storm water facility shall execute such agreements, covenants, and easements reasonably required by the City to address joint use of and access to the storm water facilities.

(c) Single Family and Two-Family Residential

(1)All storm water management facilities in areas designated as single or two-family residential that are accepted by the City for maintenance and operation will be maintained by the City as provided herein, the plat notes and/or restrictive covenants for the subdivision, or an agreement between the City and the developer of the subdivision or the HOA as appropriate. The City's maintenance and repair obligations shall include: removal of silt, litter, and other debris from all catch basins, inlets, and drainage pipes. The City will also maintain the functionality of water quality improvements contained in open channels, detention, and water quality areas. The property owner or person in control of the property upon which the BMPs storm water facilities are located will be responsible for cutting grass, removal of litter and debris, vegetation removal, and maintenance or replacement of landscape vegetation within open channels, detention and water quality areas. Maintenance needs that are the obligation of the property owner or person in control of the property must be addressed in a timely manner as determined by the City. Storm water management facilities shall be located in drainage easements in a form acceptable to the City, and shall be subject to such other agreements and requirements to ensure compliance with this Article. The property owner or person in control of the property shall promptly notify the City of any conditions that require maintenance or repair that are the obligation of the City.

(d) Failure to Maintain Practices

(1) If the storm water management facility becomes a danger to public safety or public health, the City shall notify the party responsible for maintenance of the storm water management facility in writing and may post a placard at the property. Upon receipt of that notice, the responsible person shall have ten (10) days to fulfill adequate BMPs, maintenance and repair requirements. If the owner of the facility fails to comply with the requirements of the maintenance covenant, the City, after reasonable notice, may perform all necessary work to bring the facility into compliance and charge the owner for the actual cost of the work and file any liens against the property as permitted by law.

Sec. 6.05.004 Penalty; Enforcement

(a) Any person who shall violate any of the provisions of this Article, or shall fail to comply therewith, or with any of the requirements thereof, within the City limits shall be deemed guilty of an offense and shall be liable for a fine not to exceed the sum of five hundred dollars (\$500.00). Each day the violation exists shall constitute a separate offense. Proof of culpable mental state shall not be required to establish a violation of this Article. Such penalty shall be in addition to all the other remedies provided herein.

(b) Any person who shall remove a notice of violation or a placard posted pursuant to this Article from a property prior to correction of the deficiencies indicated thereon shall be deemed guilty of a misdemeanor offense.

(c) No certificate of occupancy or utility tap shall be issued by the City for or with respect to any lot, tract or parcel of land within the City limits that is not in compliance with this Article.

(d) Any person who shall occupy a building, or any part thereof, without having received a Certificate of Occupancy, within the City limits shall be deemed guilty of an offense and shall be liable for a fine not to exceed the sum of two thousand dollars (\$2,000.00). Each day the violation exists shall constitute a separate offense. Such penalty shall be in addition to all the other remedies provided herein.

AN ORDINANCE OF THE CITY OF MANOR, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF MANOR, TEXAS BY ADDING ARTICLE 6.06 TO CHAPTER 6, HEALTH AND SANITATION, REGULATING LAND DISTURBING ACTIVITY; ESTABLISHING EROSION AND SEDIMENT CONTROL REQUIREMENTS; PROVIDING FOR DEFINITIONS; REQUIRING AN EROSION AND SEDIMENT CONTROL PLAN FOR LAND DISTURBING ACTIVITY; PROVIDING FOR DESIGN REQUIREMENTS; PROVIDING FOR INSPECTIONS; PROVIDING FOR ENFORCEMENT; PROVIDING A PENALTY FOR VIOLATIONS OF THE ORDINANCE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

Whereas, the City Council of the City of Manor finds the establishment of erosion and sediment control requirements within the City will promote the general health, safety, and welfare of the City; and

Whereas, the development of land causes large quantities of soil to be displaced and transported to downstream locations which can create significant soil erosion and sedimentation problems and may result in potentially destructive consequences; and

Whereas, a buildup of sediment degrades water quality, destroys valuable environmental resources and obstructs watercourses and storm drains which can cause flooding, thereby damaging public and private lands and property; and

Whereas, the City finds it necessary to adopt the regulations set forth in this ordinance to govern erosion control to provide and maintain a safe, efficient and effective drainage system within the City of Manor and to establish the various public and private responsibilities for the provision thereof and to reserve the natural beauty and aesthetics of the community;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANOR, TEXAS, THAT:

Section 1. <u>Findings.</u> The forgoing recitals are incorporated into this Ordinance as true and correct findings of fact.

Section 2. <u>Amendment of Code of Ordinances.</u> The City Council hereby amends Chapter 6 Health and Sanitation, of the City's Code of Ordinances to add a new *Article 6.06. Erosion and Sedimentation Control* section, attached hereto as Exhibit "A" and incorporated herein for all purposes.

Section 3. <u>Repealing All Ordinances in Conflict.</u> All other ordinances or parts of ordinances inconsistent or in conflict herewith, or to the extent of such inconsistency or conflict are hereby amended to the extent of such inconsistency or conflict. In the event of a conflict between this Ordinance and another ordinance of the City, this Ordinance shall control.

Section 4. <u>Savings Clause.</u> This City Council of the City of Manor, Texas does hereby declares that if any section, subsection, paragraph, sentence, clause, phrase, work or portion of this Ordinance is declared invalid, or unconstitutional, by a court of competent jurisdiction, that, in such event that it would have passed and ordained any and all remaining portions of this Ordinance without the inclusion of that portion or portions which may be so found to be unconstitutional or invalid, and declare that its intent is to make no portion of this Ordinance dependent upon the validity of any portion thereof, and that all said remaining portions shall continue in full force and effect.

Section 5. <u>Compliance With Open Meetings Act.</u> It is hereby officially found and determined that the meeting at which this Ordinance was considered was open to the public as required and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

Section 6. <u>Effective Date</u>. This Ordinance shall take effect immediately upon its adoption by the City Council and publication as required by the Local Government Code.

PASSED AND APPROVED on this the 15th day of November 2017.

CITY OF MANOR, TEXAS OF MANAGESON OF MANAGESON Rita G. Jonse, Mayor XAS

ATTEST:

Lluvia Tijerina, City Secretary

Exhibit "A"

ARTICLE 6.06 EROSION AND SEDIMENTATION CONTROL

Sec. 6.06.001 Purpose and Intent

(a) Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitats for fish and other desirable species.

(b) Eroded soil also necessitates repair of storm sewers and ditches and the dredging of lakes or ponds.

(c) In addition, clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat.

(d) This Article sets forth the minimum performance standard necessary to protect against erosion and sedimentation problems within the City and to establish the various public and private responsibilities for providing this protection. It is the intent of this Article to set forth performance standards which all erosion and sedimentation controls must, at a minimum, meet. It shall be the duty and responsibility of all persons, firms or corporations to which this Article applies, to design and implement erosion and sedimentation control measures which meet the performance standards contained in this Article. Further, it is the purpose of this Article to:

(1) Protect human life, health and property;

(2) Minimize expenditures of public money for cleaning sediment out of streets, sidewalks, storm drains and watercourses;

- (3) Ensure that those who expose soil to possible erosion losses are minimizing those soil losses;
- (4) Preserve the natural beauty and aesthetics of the community;
- (5) Prevent the pollution of streams, ponds and other watercourses by sediment; and

(6) Provide for restoration of sites to reduce the negative environmental impacts of construction activity.

Sec. 6.06.002 Definitions

Accelerated Erosion. Any increase over the rate of natural erosion as a result of land disturbing activity.

<u>Adequate Erosion Control Measures</u>. Ones that control the soil material within the land area under responsible control of the Person conducting the land disturbing activity.

<u>Adverse impact</u>. Any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics, or usefulness for human or natural uses, which are or may potentially be harmful or injurious to human health, welfare, safety or property, biological productivity, diversity, or stability or that unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

<u>Agricultural land management practices</u>. Those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources. Logging and timber removal operations are not to be considered a part of this definition.

<u>Applicant</u>. Any person, firm, or government agency that executes the necessary forms to apply for a permit or approval to carry out construction of a project.

<u>Best Management Practices or "BMPs"</u>. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of water in the State or the City MS4. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Borrow. Fill material that is required for on-site construction and is obtained from other locations.

<u>City</u>. The City of Manor, Texas.

<u>*City Staff.*</u> The officers, employees and agents of the City assigned and designated from time to time by the City Administrator and/or City Council, including but not limited to the City Engineer, to review and/or comment and report on development plans.

<u>Clearing</u>. Any activity that removes the vegetative surface cover.

<u>Construction Activity</u>. Land disturbing activities that are subject to National Pollutant Discharge Elimination System (NPDES) Construction Permits. These activities include but are not limited to clearing and grubbing, grading, excavating and demolition.

Erosion. The wearing away of land surface by the action of wind, water, ice, gravity or artificial means or any combination thereof.

Erosion Control. A system of structural and vegetative measures that minimizes soil erosion and off-site sedimentation.

<u>*Grading*</u>. Any stripping, cutting, filling, stockpiling or a combination thereof which modifies the existing land surface contour.

<u>Ground Cover</u>. Any vegetative growth or other material that renders the soil surface stable against accelerate erosion.

<u>Land Disturbing Activity</u>. Any use of the land by any person in residential, governmental, industrial, educational, institutional or commercial development, highway and road construction and maintenance that results in a change in the Ground Cover or topography and that may cause or contribute to Sedimentation.

<u>Natural Erosion</u>. The wearing away of the earth's surface by water, wind or other natural agents under natural environmental conditions undisturbed by man.

<u>Owner/Developer</u>. A person undertaking, or for whose benefit, activities covered by this Article are carried on. General contractors or subcontractors, or both, without a proprietary interest in a project are not included within this definition.

<u>*Person(s)*</u>. An individual, association, partnership, firm, public or private corporation, joint venture, organization, business trust, estate, board, public or private institution, political subdivision, state or federal agency, utility, cooperative or other legal entity or an agent or employee thereof.

Person Responsible for the Violation:

(a) The developer or other person who has or holds himself out as having financial or operational control over the land disturbing activity;

(b) The landowner or person in possession or control of the land who has directly or indirectly allowed the land disturbing activity or has benefited from it or has failed to comply with any provision of this Article or any order adopted pursuant to this Article; and/or

(c) The contractor with control of the tract or the contractor conducting the land disturbing activity.

<u>*Plan(s)*</u>. An erosion and sedimentation control plan.

<u>Sediment</u>. Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, ice or artificial means from its site of origin.

<u>Sedimentation</u>. The process by which sediment resulted from accelerated erosion has been or is being transported off the site of the land disturbing activity or into a wetland, lake or watercourse.

<u>Site</u>. Any tract, lot, or parcel of land, or combination of tracts, lots or parcels of land that are in one ownership, or are contiguous and in diverse ownership, where development is to be performed as part of a unit, subdivision, or project.

<u>Stabilization</u>. The protection of exposed soils from erosion by the application of seed and mulch, seed and matting, sod, other vegetative measures, and/or structural means.

<u>Storm water</u>. Water that originates from a precipitation event.

<u>Storm Water Pollution Prevention Plan (SWPPP or SWP3)</u>. Are a requirement of the NPDES that regulates water quality when associated with construction or industrial activities. The SWPPP addresses all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity and controlled through the implementation of BMPs.

Sec. 6.06.003 Ultimate Responsibility

The planning considerations given in this Article for erosion controls rely on a degree of erosion and sedimentation control and flood protection that is considered reasonable for regulatory purposes. This Article does not imply that erosion and sedimentation controls will survive inundation by runoff from storms or that land below such controls will be free from flooding or flood damages. This Article shall not create liability on the part of the City, or any officer or employee thereof, for any flood damages, or erosion or sedimentation damages, whether to persons or property, that result from reliance on this Article or any administrative decision lawfully made thereunder.

Sec. 6.06.004 Applicability

(a) City of Manor Subdivision Ordinances apply to the review of the completeness of each new application for a preliminary plan, final plat, subdivision construction plan, residential development, single lot development, commercial development, and any development that requires a development permit.

(b) City of Manor Subdivision Ordinances apply to the review of the completeness of each application to amend or propose revisions of an approved preliminary plan, final plat, subdivision construction plan, residential development, single lot development, commercial development, or any development that requires

a development permit. Non-substantive revisions or minor corrections are not subject to re-submittal and reapproval of an application.

(c) A substantive revision requiring re-submittal includes those that revise the limits of construction, increases the area of land disturbance, or increases impervious cover to the project by greater than ten (10) percent. Other substantial revisions requiring re-submittal include addition of a significantly new development activity, structures, requires a significant re-design of sediment controls, a sediment basin, permanent water quality control measures, the drainage plan, or a revision that would change a substantive term, condition, provision, or limiting parameter in an existing authorization.

- (d) This Article applies to any owner of permanent water quality controls for an authorized development.
- (e) Except as otherwise noted, This Article applies to the following applications:

(1) An application for a development permit or subdivision development that proposes 10,000 square feet or greater of impervious cover or where one (1) acre or more of land would be disturbed;

(2) An application for development that would disturb less than one (1) acre of land but is a part of a common plan of development where the overall development would disturb one (1) acre or more of land; and

(3) Other development applications, including applications for utility placement, right of way construction, single lot or parcel construction, a driveway, or an on-site sewerage facility, that propose less than 10,000 square feet of impervious cover or where less than one (1) acre of land would be disturbed which are subject to as a minimum, including following technical guidelines for erosion and sedimentation control provided by the City.

- (f) The following activities are EXEMPT from the provisions of this Article:
 - (1) Agricultural land management practices and agricultural BMPs.
 - (2) Agricultural Structures.
 - (3) Clearing or grading activities that disturb less than 5,000 square feet of land area.

Sec. 6.06.005 Erosion and Sedimentation Control Plans

(a) <u>Review and Approval of Erosion and Sediment Control Plans</u>.

(1) In addition to those requirements for subdivisions found in the Code of Ordinances, City of Manor, Texas, all applicants for subdivision of land shall submit to the City an erosion and sedimentation control plan for approval prior to the commencement of construction. The erosion and sedimentation control plan shall be included in the engineering construction plans.

(2) A person may not start construction on a project without an erosion and sediment control plan approved by the City.

(3) The City shall review erosion and sediment control plans to determine compliance with this Article prior to approval. In approving the plan, the City may impose such conditions that may be deemed necessary to ensure compliance with the provisions of this Article and the preservation of public

health and safety.

(4) An applicant shall submit an erosion and sediment control plan to the City for review and approval. A SWPPP plan is required if more than five (5) acres of land is disturbed.

(b) <u>Contents of Erosion and Sediment Control Plans</u>.

(1) An applicant is responsible for submitting erosion and sediment control plans that meet the requirements of this Article. The plans shall include sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed grading on water resources, and the effectiveness and acceptability of measures proposed to minimize soil erosion and off-site sedimentation.

(2) The objective of the Erosion and Sedimentation Control Plan is to prevent public erosion nuisances. The prevention of public erosion nuisances can be promoted, in part, by the following goals:

- (A) Reduce sedimentation in streams, creeks, lakes, waterways, storm drains, etc.
- (B) Protect the quality of the water in the City.
- (C) Provide, protect, and preserve wildlife habitat.

(D) Provide for restoration of sites to reduce the negative environmental impacts of construction activity.

- (3) At a minimum, applicants shall submit the following information:
 - (A) Erosion and sediment control plans including:

(i) The existing topography and improvements as well as proposed improvements at a scale between 1" = 10' and 1" = 50' (or other approved readable scale) with two (2) foot contours or other approved contour interval;

- (ii) The limits of construction (LOC);
- (iii) Scale, project and sheet title, and north arrow on each plan sheet along with:
 - 1. Total disturbed area;
 - 2. Volume of cut and fill quantities; and
 - 3. Volume of borrow and spoil quantities;
- (iv) Storm drainage features, including:
 - 1. Existing and proposed bridges, storm drains, culverts, outfalls, etc.;

2. Velocities and peak flow rates at outfalls for the twenty-five year and one hundred-year frequency storm events; and

3. Site conditions around points of all surface water discharge from the site;

(v) Erosion and sediment control practices to minimize on-site erosion and prevent offsite sedimentation including:

- 1. The salvage and reuse of topsoil;
- 2. Phased construction and implementation of grading to minimize disturbances,
- 3. Location, sizes and type of all proposed sediment control practices;
- 4. Design details for all erosion and sediment control practices; and

5. Specifications for temporary and permanent stabilization measures including, at a minimum:

a. The "Standard Stabilization Note" on the plan stating:

"Following initial soil disturbance or re- disturbance, permanent or temporary stabilization must be completed within:

(I) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and

(II) Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading."

b. Maintenance requirements;

(vi) A sequence of construction describing the relationship between the implementation and maintenance of controls, including permanent and temporary stabilization, and the various stages or phases of earth disturbance and construction. Any changes or revisions to the sequence of construction must be approved by the City prior to proceeding with construction. The sequence of construction, at a minimum, must include the following:

1. Request for a pre-construction meeting with the appropriate enforcement authority;

- 2. Clearing and grubbing as necessary for the installation of perimeter controls;
- 3. Construction and stabilization of perimeter controls;
- 4. Remaining clearing and grubbing within installed perimeter controls;
- 5 Road grading;
- 6. Grading for the remainder of the site;
- 7. Utility installation and connections to existing structures;
- 8. Construction of buildings, roads, and other construction;

- 9. Final grading, landscaping, and stabilization;
- 10. Installation of storm water management measures;

11. Removal of controls and stabilization of areas that are disturbed by removal of sediment controls;

(vi) A statement requiring the owner/developer or representative to contact the City or its agent at the following stages of the project or in accordance with the approved erosion and sediment control plan, grading permit or building permit:

1. Prior to the start of earth disturbance;

2. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading;

3. Prior to the start of another phase of construction and prior to the removal of sediment control practices;

(B) Any additional information or data deemed appropriate by the City of Manor.

(C) Methods of Reducing Erosion and Sedimentation – In order to implement the objectives stated about, the following design considerations are necessary:

- (i) Limit the size of disturbed areas to the greatest extent possible.
- (ii) Stabilize any disturbed area as soon as possible.
- (iii) Controls are required to intercept silt from all disturbed areas.
- (iv) Minimize the extent of sediment leaving the project site.

(v) Reduce the concentration of storm water runoff and promote street flow to greatest extent possible.

(vi) Erosion control plans should be phased to accommodate for changes in drainage patterns that occur during development.

(vii) Reduce the silt leaving a construction site on the wheels of construction vehicles by providing vehicle washing areas and/or established construction entrances and exits.

(viii) Preserve and protect existing vegetation to the greatest extent possible.

(ix) Planning should consider the natural topography and soil condition in an attempt to limit the erosion potential.

(c) <u>Modifications to Erosion and Sediment Control Plans</u>

(1) The City may revise approved plans as necessary. Modifications may be requested by the owner/developer, the City or any state inspection agency.

(2) The City may develop a list of minor modifications that may be approved as filed revisions by the inspection agency. The City or its representatives must approve any list of minor modifications prior to its implementation.

Sec. 6.06.006 Permit Required

(a) A person commits an offense if the person performs or causes to be performed any land-disturbing activity without an approved site development or construction permit from the City.

(b) It is an affirmative defense to prosecution of a violation of subsection (a) that the land-disturbing activity consists of one of the following activities:

(1) An emergency activity that is immediately necessary for the protection of life, property, or natural resources; or

(2) A nursery and/or agricultural operation existing as of the date of adoption of this Article and conducted as a permitted main or accessory use on the site; or

(3) Gardening or yard work for a residential dwelling disturbing less than 7,500 square feet of vegetation.

(c) Each permit application shall be submitted to Development Services on a form maintained by the City.

(d) A person shall include with their construction or site development plans an Erosion and Sediment Control Plan for the property for which the land disturbing activity is proposed. Additionally, if applicable, offsite borrow areas, spoil areas and construction staging areas shall be considered as part of the development site and shall be included in the Plan. The Erosion and Sediment Control Plan shall meet the requirements of Section 6.06.005 hereof.

(e) Each application shall include a signed statement by the applicant affirming that any land clearing, grading, construction, or development involving the movement of earth shall be conducted in accordance with the Erosion and Sediment Control Plan approved with the site development or construction permit.

Sec. 6.06.007 Review and Approval

(a) City Staff or City Engineer, as appropriate, will review each application for a site development or construction permit to determine its conformance with the provisions of this Article.

(b) After receiving an application, the City shall review the application and:

(1) Approve the permit application; or

(2) Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Article, and issue the permit subject to these conditions; or

(3) Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application.

Sec. 6.06.008 Duties and Responsibilities

(a) Duties of the City Manager

The City Manager or his/her designee is hereby appointed to administer and implement this Article. The duties of the City Manager or his/her designee shall include, but not be limited to:

(1) Inspecting sites to determine compliance with this Article;

(2) Determining if sureties shall be exercised. If so, the City Manager shall arrange for the work to be done, and if not, the City Manager shall return the sureties to the applicant; and

(3) Determining if a "stop work order" shall be issued and, if so, when the "stop work order" shall be removed from the project or construction, and work allowed to commence or recommence.

(b) Responsibilities of Owners

The owner, builder, developer, tenant, or any other person, firm, or corporation who owns, possesses, is in custody of, or exercises control of, property shall be responsible for any silt, mud, or sands transported from the property by drainage. The intent of this Article is that owners, builders, and developers make provisions for preventing erosion and sedimentation problems at such time as their property is proposed for development, use, or modification, and to continue such preventive measures during the actual construction and development of the property. Additionally, all persons, firms, or corporations who, after construction and development, own, posses, are in custody of, or exercise control of, the property are responsible for preventing the erosion and sedimentation problems addressed by this Article.

Sec. 6.06.009 Inspection

The City is responsible for the inspection and enforcement of all land disturbing activities, including those sites requiring an erosion and sediment control pan as specified by this Article. This enforcement authority may be delegated to TCEQ (Texas Commission on Environmental Quality) through a request by the TCEQ or required as a condition of a NDPES municipal separate storm sewer system permit. This section applies to the City, TCEQ or, Travis County, if delegated the enforcement authority.

(a) Inspection Frequency and Reports

(1) The owner/developer shall maintain a copy of the approved erosion and sediment control plan on site.

(2) Every active site having a designed erosion and sediment control plan should be inspected for compliance with the plan on average once every two (2) weeks or after a rainfall of one (1) inch or more.

(3) A written report shall be prepared by the inspection agency after every inspection. The report shall describe:

- (A) The date and location of the site inspection;
- (B) Whether the approved plan has been properly implemented and maintained;
- (C) Practice deficiencies or erosion and sediment control plan deficiencies;
- (D) If a violation exist, the type of enforcement action taken; and

(E) If applicable, a description of any modifications to the plan.

(4) The inspection agency shall notify the on-site personnel or the owner/developer in writing when violations are observed, describing:

- (A) The nature of the violation;
- (B) The required corrective action; and
- (C) The time period in which to have the violation corrected.

(b) <u>Right of Entry</u>

(1) Pursuant to Texas Water Code Section 26.171, City officials, employees, agents, and representatives are entitled to enter and inspect the premises of any person to determine whether or not:

(A) The quality of the water meets the state water quality standards adopted by the TCEQ;

(B) Persons discharging effluent into the public water located in the areas in which the City has jurisdiction have obtained permits for discharge of the effluent; and

(C) Persons who have permits are making discharges in compliance with the requirements of the permits.

(2) Pursuant to Texas Water Code Section 26.173, City officials, employees, agents, and representatives are entitled to enter any public or private property within the City's territorial jurisdiction to make inspections and investigations of conditions relating to water quality. In exercising this power, City officials, employees, agents, and representatives are subject to the same provisions and restrictions set forth in Texas Water Code Section 26.014 with respect to the TCEQ.

(3) City officials, employees, agents, representatives and contractors are entitled to enter public or private property at any reasonable time to investigate or monitor, or if the person responsible is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state.

(4) City officials, employees, agents, representatives and contractors who enter private property must:

(A) Observe the property's rules and regulations concerning safety, internal security, and fire protection; and

(B) If the property has management in residence, notify management in person or the person then in charge in that person's presence and exhibit proper credentials.

(5) City officials, employees, agents, representatives, and contractors are entitled to enter and inspect premises as often as may be necessary to determine compliance with this Article. If a responsible person has security measures in force which require proper identification and clearance before entry into its premises, the responsible person shall make the necessary arrangements to allow access to City officials, employees, agents, representatives, and contractors.

(6) Responsible persons must allow City officials, employees, agents, representatives, and contractors ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of a TPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

(7) If the premises are occupied, the City official, employee, agent, representative or contractor shall present credentials and request entry. If the premises are unoccupied, the City official, employee, agent, representative or contractor shall attempt to contact a responsible person and request entry before entering.

(8) At the written or oral request of the responsible person of a facility or vessel to be inspected or sampled, any temporary or permanent obstruction to safe and easy access to the facility or vessel to be inspected or sampled must be promptly removed by the responsible person at the written or oral request of a City official, employee, agent, representative, or contractor and must not be replaced.

(9) A delay of thirty (30) minutes or more in allowing a City official, employee, agent, representative, or contractor access to a permitted facility is a violation of a storm water discharge permit and of this Article. A person who is the owner or operator of a facility with a TPDES permit to discharge storm water associated with industrial activity violates this Article if the person denies City officials, employees, agents, representatives and contractors reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this Article.

(10) If a City official, employee, agent, representative, or contractor has been refused access to any part of the premises from which storm water is discharged, and is able to demonstrate probable cause to believe that there may be a violation of this Article, or that there is a need to inspect or sample as part of a routine inspection and sampling program designed to verify compliance with this Article or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the City official, employee, agent, representative, or contractor may seek issuance of a search warrant from any court of competent jurisdiction.

(c) Complaints

The City shall accept and investigate complaints regarding erosion and sediment control concerns from any interested parties and:

(1) Conduct an initial investigation within three (3) working days from receipt of the complaint;

(2) Notify the complainant of the initial investigation and findings within seven (7) days from receipt of the complaint; and

(3) Take appropriate action when violations are discovered during the course of the complaint investigation.

Sec. 6.06.010 Notice Provisions

It shall be the duty of the appointed City Manager or his designee to give forty-eight (48) hours notice, in writing, to the owner or agent in charge of any premises believed to be in violation of this Article, to correct the public erosion nuisance and to clean up and remove the offending and burdensome sedimentation. A notice of less than forty-eight (48) hours may be given in the event that the City Manager decides, in his/her judgment, that the situation believed to be in violation of this Article poses a substantial and immediate threat to public health, safety, and welfare.
Sec. 6.06.011 Stop Work Orders

All development, improvement, and construction on any land which is in violation of the provisions of this Article may be halted and stopped by order of the City Manager. No stop work order may be issued until the notice provisions of this Article are fully complied with by the City and the owner or agent of the premises is given reasonable time period to correct the public erosion nuisance and to clean up and remove the offending and burdensome sedimentation.

Sec. 6.06.012 Violation; Penalties; Enforcement

(a) A person commits an offense if the person violates any provision or fails to comply with any of the requirements of this Article.

(b) Any person who violates any of the provisions of this Article shall be fined no more than One Thousand Dollars (\$1,000.00) for each violation of this Article. Each day that a violation is allowed to exist shall constitute a separate offense.

(c) The City Attorney is authorized to commence an action for appropriate legal or equitable relief in a court of competent jurisdiction. Such relief may include:

- (1) An injunction to prevent a violation of this Article;
- (2) Recovery for damages to the storm drainage system resulting from a violation of this Article;
- (3) Recovery for expenses incurred by the City in responding to a violation of this Article;
- (4) A civil fine of up to one thousand dollars (\$1,000.00) per day for a violation of this Article;
- (5) All other damages, costs and remedies to which the City may be entitled.

(d) The remedies listed in this Article are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the City to seek cumulative remedies.

Sec. 6.06.013 Violations Deemed A Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Article is a threat to public health, safety and welfare, and is declared and deemed a nuisance.

APPENDIX D

TCEQ GENERAL PERMIT TXR040000

Texas Commission on Environmental Quality

P.O. Box 13087, Austin, Texas 78711-3087



GENERAL PERMIT TO DISCHARGE UNDER THE

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of 402 of the Clean Water Act and Chapter 26 of the Texas Water Code

This permit supersedes and replaces TPDES General Permit No. TXR040000, issued December 13, 2013

Small Municipal Separate Storm Sewer Systems

located in the state of Texas

may discharge directly to surface water in the state

only according to requirements and conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, five years after the permit effective date.

EFFECTIVE DATE: 1 - 24 - 19ISSUED DATE: 1 - 24 - 19

For the Commission

TCEQ GENERAL PERMIT NUMBER TXR040000 RELATING TO DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

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Part I. Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) All soil disturbing activities at the site have been completed and a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (b) For individual lots in a residential construction site by either:
 - (1) The homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) The homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization.

- (c) For construction activities on land used for agricultural purposes (for example pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to a surface water and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.
- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - (1) Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and
 - (2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

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

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

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

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

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

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

Impaired Water - A surface water body that is identified as impaired on the latest approved CWA §303(d) List or waters with an EPA approved or established TMDL that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies.

Implementation Plan (I-Plan) – A detailed plan of action that describes the measures or activities necessary to achieve the pollutant reductions identified in the total maximum daily load (TMDL).

Indian Country - Defined in 18 USC § 1151 as: (a) All land within the limits of any Indian reservation under the jurisdiction of the United States (U.S.) Government, notwithstanding the

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

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

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

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

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

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

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

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

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

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

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

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

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

Permittee - The MS4 operator authorized under this general permit.

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

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

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

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

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

- (a) Owned or operated by the U.S., a state, city, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under CWA § 208;
- (b) Designed or used for collecting or conveying stormwater;
- (c) Which is not a combined sewer;
- (d) Which is not part of a POTW as defined in 40 CFR § 122.2; and
- (e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES)

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

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

Stormwater and Stormwater Runoff - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

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

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

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

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

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

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

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

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

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate wetlands;

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

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA are not waters of the U.S. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA jurisdiction remains with the EPA.

Part II. Permit Applicability and Coverage

This general permit provides authorization for stormwater and certain non-stormwater discharges from small municipal separate storm sewer systems (MS4) to surface water in the state. The general permit contains requirements applicable to all small MS4s that are eligible for coverage under this general permit.

Section A. Small MS4s Eligible for Authorization under this General Permit

Discharges from a small MS4 must be authorized if any of the following criteria are met and may be authorized under this general permit if coverage is not otherwise prohibited.

1. Small MS4s Located in an Urbanized Area

Operators of small MS4s that are fully or partially located within an urbanized area (UA), as determined by the 2000 or 2010 Decennial Censuses by the U.S. Census Bureau, must obtain authorization for the discharge of stormwater runoff and are eligible for coverage under this general permit unless otherwise prohibited.

2. Designated Small MS4s

A small MS4 that is outside an urbanized area that is *designated* by TCEQ based on evaluation criteria as required by 40 CFR § 122.32(a)(2) or 40 CFR § 122.26(a)(1)(v) and adopted by reference in Title 30, TAC § 281.25, is eligible for coverage under this general permit. Following designation, operators of small MS4s must obtain authorization under this general permit or apply for coverage under an individual TPDES stormwater permit within 180 days of notification of their designation.

3. Operators of Previously Permitted Small MS4s

Operators of small MS4s that were covered under the previous TPDES general permit for small MS4s (TXR040000, issued and effective on December 13, 2013) must reapply for permit coverage, or must obtain a waiver if applicable (see Part II.B, related to Obtaining a Waiver.)

4. Regulated Portion of Small MS4

The portion of the small MS4 that is required to meet the conditions of this general permit are those portions that are located within the UA as defined and used by the U.S. Census Bureau in the 2000 or 2010 Censuses, as well as any portion of the small MS4 that is designated by TCEQ.

For the purpose of this permit, the regulated portion of a small MS4 for a transportation entity is the land owned by the permittee within the UA which functions as, or is integral to a transportation system with drainage conveyance. Non-contiguous property that does not drain into the transportation drainage system is not subject to this general permit.

5. Categories of Regulated Small MS4s

This permit defines MS4 operators by the following categories, or levels, based on the population served within the 2010 UA. The level of a small MS4 may change during the permit term based on the MS4 operator acquiring or giving up regulated area, such as by annexing land or if land is annexed away. However, the level of a small MS4 will not change during the permit term based on population fluctuation.

The level of an MS4 is based on most the recent Decennial Census at the time of permit issuance. A national Census held during a permit term will not affect the level of an MS4 until the next permit renewal.

- (a) Level 1: Operators of traditional small MS4s that serve a population of less than 10,000 within a UA;
- (b) Level 2: Operators of traditional small MS4s that serve a population of at least 10,000 but less than 40,000 within a UA. This category also includes all non-traditional small MS4s such as counties, drainage districts, transportation entities, military bases, universities, colleges, correctional institutions, municipal utility districts and other special districts regardless of population served within the UA, unless the non-traditional MS4 can demonstrate that it meets the criteria for a waiver from permit coverage based on the population served;
- (c) Level 3: Operators of traditional small MS4s that serve a population of at least 40,000 but less than 100,000 within a UA;
- (d) Level 4: Operators of traditional small MS4s that serve a population of 100,000 or more within a UA.

For the purpose of this section "serve a population" means the residential population within the regulated portion of the small MS4 based on the 2010 Census, except for non-traditional small MS4s listed in (b) above.

Section B. Available Waivers from Coverage

The TCEQ may waive permitting requirements for small regulated MS4 operators if the criteria are met for Waiver Option 1 or 2 below. To obtain Waiver Option 1, the MS4 operator must submit the request on a waiver form provided by the executive director, or, starting from December 21, 2020, complete the form electronically via the online e-permitting system available through the TCEQ website.

To obtain Waiver Option 2, the MS4 operator must contact the executive director and coordinate the activities required to meet the waiver conditions. A provisional waiver from permitting requirements begins 30 days after an administratively complete waiver form is postmarked for delivery to the TCEQ, or starting from December 21, 2020, complete the form electronically via the online e-permitting system available through the TCEQ website.

Following review of the waiver form, the executive director may:(1) Determine that the waiver form is technically complete and approve the waiver by providing a notification and a waiver number; (2) Determine that the waiver form is incomplete and deny the waiver until a completed waiver form is submitted; or (3) Deny the waiver and require that permit coverage be obtained.

If the conditions of a waiver are not met by the MS4 operator, then the MS4 operator must submit an application for coverage under this general permit or a separate TPDES permit application.

At any time the TCEQ may require a previously waived MS4 operator to comply with this general permit or another TPDES permit if circumstances change so that the conditions of the waiver are no longer met. Changed circumstances can also allow a regulated MS4 operator to request a waiver at any time.

At any time the TCEQ can request to review any waivers granted to MS4 operators to determine whether any of the information required for granting the waiver has changed. At

a minimum TCEQ will review all waivers when MS4 operators submit their renewal waiver applications.

For the purpose of obtaining a waiver, the population served refers to the residential population for traditional small MS4s and for certain non-traditional small MS4s with a residential population (such as counties and municipal utility districts). For other non-traditional small MS4s, the population served refers to the number of people using the small MS4 on an average operational day.

Effective December 21, 2020, applicants must submit a waiver using the online e-permitting system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization.

1. Waiver Option 1:

The small MS4 serves a population of less than 1,000 within a UA and meets the following criteria:

- (a) The small MS4 is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES / TPDES stormwater program (40 CFR § 122.32(d)); and
- (b) If the small MS4 discharges any pollutant(s) that have been identified as a cause of impairment of any water body to which the small MS4 discharges, stormwater controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern.

2. Waiver Option 2:

The small MS4 serves a population under 10,000 within a UA and meets the following criteria:

- (a) The TCEQ has evaluated all waters of the U.S., including small streams, tributaries, lakes, and ponds, that receive a discharge from the small MS4;
- (b) For all such waters, the TCEQ has determined that stormwater controls are not needed based on wasteload allocations that are part of an approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern; and
- (c) The TCEQ has determined that future discharges from the small MS4 do not have the potential to exceed Texas surface water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.
- (d) For the purpose of this paragraph (2.), the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the small MS4.

Section C. Allowable Non-Stormwater Discharges

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4's Illicit Discharge and Detection or other minimum control measures, unless they are determined by the permittee or the TCEQ to be significant contributors of pollutants to the small MS4, or they are otherwise prohibited by the MS4 operator:

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

Section D. Limitations on Permit Coverage

1. Discharges Authorized by Another TPDES Permit

Discharges authorized by an individual or other general TPDES permit may be authorized under this TPDES general permit only if the following conditions are met:

- (a) The discharges meet the applicability and eligibility requirements for coverage under this general permit;
- (b) A previous application or permit for the discharges has not been denied, terminated, or revoked by the executive director as a result of enforcement or water quality related concerns. The executive director may provide a waiver to this provision based on new circumstances at the regulated small MS4; and
- (c) The executive director has not determined that continued coverage under an individual permit is required based on consideration of an approved total maximum daily loading (TMDL) model and implementation plan, anti-backsliding policy, history of substantive non-compliance or other 30 TAC Chapter 205 considerations and requirements, or other site-specific considerations.

2. Discharges of Stormwater Mixed with Non-Stormwater

Stormwater discharges that combine with sources of non-stormwater are not eligible for coverage by this general permit, unless either the non-stormwater source is described in Part II.C of this general permit or the non-stormwater source is authorized under a separate TPDES permit.

3. Compliance with Water Quality Standards

Discharges to surface water in the state that would cause, has the reasonable potential to cause, or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses are not eligible for coverage under this general permit except as described in Part II.D.4 below. The executive director may require an application for an individual permit or alternative general permit to authorize discharges to surface water in the state if the executive director determines that an activity will cause has the reasonable potential to cause, or contribute to, a violation of water quality standards or is found to cause, have the reasonable potential to cause, or contribute to the impairment of a designated use of surface water in the state. The executive director may also require an application for an individual permit based on factors described in Part II.F.2.

4. Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements

Discharges of the pollutant(s) of concern to impaired water bodies for which there is a TCEQ and EPA approved TMDL are not eligible for this general permit unless they are consistent with the approved TMDL. A water body is impaired for purposes of the permit if it has been identified, pursuant to the latest TCEQ and EPA approved CWA §303(d) list or the *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies, as not meeting Texas Surface Water Quality Standards.

The permittee shall check annually, in conjunction with preparation of the annual report, whether an impaired water within its permitted area has been added to the latest EPA approved 303(d) list or the *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies. Within two years following the approval date of the new list(s) of impaired waters, the permittee shall comply with the requirements of Part II.D.4.(b) (with the exception of (b)(1)c), and shall identify any newly listed waters in the annual report (consistent with Part IV.B.2.f) and SWMP (consistent with Part III.A.2.f).

The permittee shall control the discharges of pollutant(s) of concern to impaired waters and waters with approved TMDLs as provided in sections (a) and (b) below, and shall assess the progress in controlling those pollutants.

(a) Discharges to Water Quality Impaired Water Bodies with an Approved TMDL

If the small MS4 discharges to an impaired water body with an approved TMDL, where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section.

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

(1) 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.

(2) 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.

(3) Identification of Benchmarks

The SWMP must identify a benchmark for the 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 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 in itself indicate a violation of instream water quality standards.

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

- a. If the MS4 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.D.4(a)(6).
- b. Alternatively, if multiple small MS4s are discharging into the same impaired water body 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 has

been broken into sub-benchmark values for individual MS4s, each permittee is only responsible for progress in meeting its sub-benchmark value.

(4) Annual Report

The annual report must include an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark value.

(5) Impairment for Bacteria

If the pollutant of concern is bacteria, the permittee shall implement BMPs addressing the below areas, as applicable, in the SWMP and implement as appropriate. If a TMDL Implementation Plan (I-Plan) is available, the permittee may refer to the I-Plan for appropriate BMPs. The SWMP and annual report must include the selected BMPs. Permitees may not exclude BMPs associated with the minimum control measures required under 40 CFR §122.34 from their list of proposed BMPs. Proposed BMPs will be reviewed by the executive director during the NOI and SWMP review and approval process.

The BMPs shall, as appropriate, address the following:

- a. Sanitary Sewer Systems
 - (i) Make improvements to sanitary sewers to reduce overflows;
 - (ii) Address lift station inadequacies;
 - (iii) Improve reporting of overflows; and
 - (iv) Strengthen sanitary sewer use requirements to reduce blockage from fats, oils, and grease.
- b. On-site Sewage Facilities (for entities with appropriate jurisdiction)
 - (i) Identify and address failing systems; and
 - (ii) Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).
- c. Illicit Discharges and Dumping

Place additional effort to reduce waste sources of bacteria; for example, from septic systems, grease traps, and grit traps.

d. Animal Sources

Expand existing management programs to identify and target animal sources such as zoos, pet waste, and horse stables.

e. Residential Education

Increase focus to educate residents on:

- (i) Bacteria discharging from a residential site either during runoff events or directly;
- (ii) Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;
- (iii) Maintenance and operation of decorative ponds; and
- (iv) Proper disposal of pet waste.

(6) Monitoring or Assessment of Progress

The permittee shall develop a Monitoring/Assessment Plan to monitor or assess progress in achieving benchmarks and determine the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used.

- a. The permittee may use either of the following methods to evaluate progress towards the benchmark and improvements in water quality in achieving the water quality standards as follows:
 - (i) Evaluating Program Implementation Measures

The permittee may evaluate and report progress towards the benchmark by describing the activities and BMPs implemented, by identifying the appropriateness of the identified BMPs, and by evaluating the success of implementing the measurable goals.

The permittee may assess progress by using program implementation indicators such as: (1) number of sources identified or eliminated; (2) decrease in number of illegal dumping; (3) increase in illegal dumping reporting; (4) number of educational opportunities conducted; (5) reductions in sanitary sewer flows (SSOs); or, (6) increase in illegal discharge detection through dry screening, etc.; or

(ii) Assessing Improvements in Water Quality

The permittee may assess improvements in water quality by using available data for segment and assessment units of water bodies from other reliable sources, or by proposing and justifying a different approach such as collecting additional instream or outfall monitoring data, etc. Data may be acquired from TCEQ, local river authorities, partnerships, and/or other local efforts as appropriate.

- b. Progress towards achieving the benchmark shall be reported in the annual report. Annual reports shall report the benchmark and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.
- (7) Observing no Progress Towards the Benchmark

If, by the end of the third year from the effective date of the permit, the permittee observes no progress toward the benchmark either from program implementation or water quality assessments as described in Part II.D.4(a)(6), the permittee shall identify alternative focused BMPs that address new or increased efforts towards the benchmark or, as appropriate, shall develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs for those (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent annual reports.

Where the permittee originally used a benchmark value based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same watershed to determine an alternative sub-benchmark value for the pollutant(s) of concern for their respective MS4s, as described in Part II.D.4(a)(3)(b) above. Permittees must document, in their SWMP for the next permit term, the proposed schedule for the development and subsequent adoption

of alternative sub-benchmark value(s) for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual benchmarks.

(b) Discharges Directly to Water Quality Impaired Water Bodies without an Approved TMDL

The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies where a TMDL has not yet been approved by TCEQ and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities:

- (1) Discharging a Pollutant of Concern
 - a. The permittee shall determine whether the small MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern.
 - b. If the permittee determines that the small MS4 may discharge the pollutant(s) of concern to an impaired water body without an approved TMDL, the permittee shall ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body.
 - c. In addition, the permittee shall submit an NOC to amend the SWMP in accordance with Part II.E.6 to include any additional BMPs to address the pollutant(s) of concern. This requirement does not apply to BMPs implemented to address impaired waters that are listed after permit authorization pursuant to Part II.D.4.
- (2) Impairment of Bacteria

Where the impairment is for bacteria, the permittee shall identify potential significant sources and develop and implement focused BMPs for those sources. The permittee may implement the BMPs listed in Part II.D.4(a)(5) or proposed alternative BMPs as appropriate.

(3) The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

5. Discharges to the Edwards Aquifer Recharge Zone

Discharges of stormwater from regulated small MS4s, and other non-stormwater discharges, are not authorized by this general permit where those discharges are prohibited by 30 TAC Chapter 213 (Edwards Aquifer Rule). New discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone, must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of this general permit.

For existing discharges, the requirements of the agency-approved Water Pollution Abatement Plan (WPAP) under the Edwards Aquifer Rule are in addition to the requirements of this general permit. BMPs and maintenance schedules for structural stormwater controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in stormwater runoff are in addition to the effluent limitation requirements found in Part VI.D. of this general permit.

The permittee's agency-approved WPAPs that are required by the Edwards Aquifer Rule must be referenced in the SWMP. Additional agency-approved WPAPs received after the SWMP submittal must be recorded in the annual report for each respective permit year. For discharges originating from the small MS4 permitted area, and located on or within ten stream miles upstream of the Edwards Aquifer recharge zone, applicants must also submit a copy of the MS4 NOI to the appropriate TCEQ Regional Office with each WPAP application.

Counties: Comal, Bexar, Medina, Uvalde, and Kinney

Contact:

TCEQ, Water Program Manager San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 (210) 490-3096

Counties: Williamson, Travis, and Hays

Contact:

TCEQ, Water Program Manager Austin Regional Office 12100 Park 35 Circle, Bldg. A, Rm 179 Austin, Texas 78753 (512) 339-2929

6. Discharges to Specific Watersheds and Water Quality Areas

Discharges of stormwater from regulated small MS4s and other non-stormwater discharges are not authorized by this general permit where prohibited by 30 TAC Chapter 311 (relating to Watershed Protection) for water quality areas and watersheds.

7. Protection of Streams and Watersheds by Home Rule Municipalities

This general permit does not limit the authority of a home-rule municipality provided by Texas Local Government Code § 401.002.

8. Indian Country Lands

Stormwater runoff from small MS4s that occur on Indian Country lands are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of stormwater require authorization under federal NPDES regulations, authority for these discharges must be obtained from the U.S. EPA.

9. Endangered Species Act

Discharges that would adversely affect a listed endangered or threatened species or its critical habitat are not authorized by this permit. Federal requirements related to endangered species apply to all TPDES permitted discharges, and site-specific controls may

be required to ensure that protection of endangered or threatened species is achieved. If a permittee has concerns over potential impacts to listed species, the permittee shall contact TCEQ for additional information prior to submittal of the NOI and SWMP. If adverse impact is determined after submittal of the NOI and SWMP or after permit issuance, the permittee shall contact TCEQ immediately to determine corrective action and potential modification to the MS4's permit.

10. Other

Nothing in Part II of the general permit is intended to negate any person's ability to assert the force majeure (act of God, war, strike, riot, or other catastrophe) defenses found in 30 TAC § 70.7.

This permit does not transfer liability for the act of discharging without, or in violation of, a NPDES or a TPDES permit from the operator of the discharge to the permittee(s).

Section E. Obtaining Authorization

1. Application for Coverage

When submitting a notice of intent (NOI) and SWMP, for coverage under this general permit, as described in Parts II.E.3., II.E.8, and Part III, the applicant must follow the public notice and availability requirements found in Part II.E.16 of this general permit.

Applicants seeking authorization to discharge under this general permit must submit a completed NOI on a form approved by the executive director, and a SWMP as described in Part III. The NOI and SWMP must be submitted to the TCEQ Water Quality Division, at the address specified on the form or starting from December 21, 2020, must be submitted electronically via the online e-permitting system available through the TCEQ website.

Following review of the NOI and SWMP, the executive director may determine that: 1) The submission is complete and the NOI and SWMP are approved, 2) The NOI or SWMP are incomplete and deny coverage and require that a new complete NOI and SWMP be submitted, 3) Approve the NOI and SWMP with revisions and provide a written description of the required revisions along with any compliance schedule(s), or 4) Deny coverage and provide a deadline by which the MS4 operator must submit an application for an individual permit. Where the executive director approves the submittal, either with or without changes, the applicant must then carry out the public participation provisions in Part II.E.12. Following the completion of the public participation process, the applicant is authorized to discharge upon notification by TCEQ, at which point the permittee is subject to the terms of this permit and the approved terms of the SWMP. Denial of coverage under this general permit is subject to the requirements of 30 TAC § 205.4(c). Application deadlines are as follows:

(a) Small MS4s Located in a 2000 or 2010 UA (Previously regulated Small MS4s)

Operators of small MS4s described in Part II.A.1 that were required to obtain authorization under the 2013 TPDES General Permit TXR040000 based on the 2000 and 2010 UA maps shall submit an NOI and SWMP within 180 days following the effective date of this general permit. (b) Designated Small MS4s

Following designation, operators of small MS4s described in Part II.A.2 shall submit an NOI and SWMP, or apply for coverage under an individual TPDES stormwater permit, within 180 days of being notified in writing by the TCEQ of the need to obtain permit coverage.

(c) Individual Permit Alternative

If an operator of a small MS4 described in Part II.A.1. of this general permit elects to apply for an individual permit, the application must be submitted within 90 days following the effective date of this general permit.

Effective December 21, 2020, the NOI and the SWMP must be submitted using the online epermitting system available through the TCEQ website, unless the permittee requests and obtains an electronic reporting waiver. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

2. Late Submission of the NOI and SWMP

Operators are not prohibited from submitting an NOI and SWMP after the deadlines provided. If a late NOI and SWMP are submitted, then this general permit provides authorization only for discharges that occur after permit coverage is obtained. The TCEQ reserves the right to take appropriate enforcement actions for any unpermitted discharges.

3. SWMP General Requirements

A SWMP must be developed and submitted with the NOI for eligible discharges that will reach waters of the U.S., including discharges from the regulated small MS4 to other MS4s or to privately-owned separate storm sewer systems that subsequently drain to waters of the U.S., according to the requirements of Part III of this general permit. The SWMP must include, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action throughout the permit term.

New elements in the program must be completely implemented within five years of the effective date of this general permit, or within five years of being designated for those small MS4s which are designated following permit issuance. Previously regulated MS4s shall assess existing program elements set forth in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP.

4. SWMP Review

The permittee shall participate in an annual review of its SWMP in conjunction with preparation of the annual report required in Part IV.B.2. Results of the review shall be documented in the annual report.

5. SWMP Updates Required by TCEQ

Changes may be made to the SWMP during the permit term. The TCEQ may notify the permittee of the need to modify the SWMP to be consistent with the general permit, in which case the permittee will have 90 days to finalize such changes to the SWMP.

6. SWMP Updates

Changes that are made to the SWMP before the NOI is approved by the TCEQ must be submitted in a letter providing supplemental information to the NOI.

Changes to the SWMP that are made after TCEQ approval of the NOI and SWMP may be made by submittal and approval of a notice of change (NOC) unless the changes are non-substantial and do not change terms and conditions in the SWMP. Changes may be made as follows:

(a) Changes that do not require an NOC

The following changes may be implemented without submitting an NOC form. The changes may be made immediately following revision of the SWMP:

- (1) Adding (but not subtracting or replacing) components, controls, or requirements to the SWMP;
- (2) Adding areas such as by annexing land, or otherwise acquire additional land that expands the boundary of the MS4, or subtracting areas, such as by de-annexing lands;
- (3) Adding impaired water bodies that are identified pursuant to Part II.D.4; and
- (4) Minor modifications to the SWMP that include administrative or non-substantial changes as follows:
 - a. A change in personnel, or a reorganization of departments responsible for implementing the SWMP;
 - b. Minor clarifications to the existing BMPs;
 - c. Correction of typographical errors;
 - d. Other similar administrative or non-substantive comments.
- (b) Changes that require an NOC

Modifications to the SWMP that include the following changes require submittal of an NOC along with those portions of the SWMP that are applicable to the change(s). The changes may be implemented once the permittee receives approval of the NOC.

- (1) Replacing a less effective or infeasible BMP specifically identified in the SWMP with an alternative BMP, (for example, replacing a structural BMP with a non-structural BMP would be considered a replacement). The SWMP update must include documentation of the following:
 - a. An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
 - b. Expectations of the effectiveness of the replacement BMP; and
 - c. An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced;
- (2) Requirement for more frequent monitoring or reporting by the permittee; and

- (3) Interim compliance date change in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement.
- (c) Changes that require an NOC and Public Notice

All other modifications that changes permit terms and conditions must be submitted on an NOC form along with those portions of the SWMP that are applicable to the changes. The changes may only be implemented following public notice and written approval by TCEQ.

- (1) After receiving an NOC, the TCEQ evaluates if the requested change(s) can be approved and might request additional information from the permittee during the review process. If the request can be approved, the MS4 is required to post the notice of the Executive Director's preliminary determination of the NOC and the revised terms of the SWMP on the MS4's website. If the MS4 does not have a website, the MS4 must notify TCEQ and TCEQ will post the notice on the TCEQ website at <u>https://www.tceq.texas.gov/</u>.
- (2) The public comment period begins on the first day the notice is posted on the MS4 or the TCEQ website and ends 30 days later. If the 30th calendar day falls on a date that TCEQ is not open for business, then the public comment period is extended until 5 pm on the next TCEQ business day. If there is a decision to hold a public meeting, then the public comment period will continue until the public meeting has been held. The public may submit comments regarding the proposed changes to the TCEQ Water Quality Division.
- (3) The Executive Director will hold a public meeting (equivalent to a "public hearing" as required by 40 CFR §122.28(d) (2) (ii)) if it is determined there is significant public interest. The Executive Director will post a notice of the public meeting on the TCEQ website at https://www.tceq.texas.gov/. The notice of a public meeting will be posted at least 30 days before the meeting and will be held in the county where the MS4 is located or primarily located. TCEQ staff will facilitate the meeting and provide a sign in sheet for attendees to register their names and addresses. The public meeting held under this general permit is not an evidentiary proceeding. If a public meeting is held, the comment period will end at the conclusion of the public meeting.
- (4) The Executive Director, after considering public comment, shall incorporate the NOC changes into the SWMP. Once the revised terms are incorporated into the SWMP, the Executive Director will notify the permittee and the public on the revised terms and conditions of the SWMP.

7. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation

The permitte shall implement the SWMP:

(a) On all new areas added to its portion of the MS4 (or where the permittee becomes responsible for implementation of stormwater quality controls) as expeditiously as possible, but no later than three (3) years from addition of the new area.

Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.

(b) Within ninety (90) days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee shall have a plan for implementing the SWMP in all affected areas. The plan must include schedules for implementation, and information on all new annexed areas. Any resulting updates required to the SWMP shall be submitted in the annual report.

8. Contents of the NOI

The NOI must contain the following minimum information:

- (a) MS4 Operator Information
 - (1) The name, mailing address, electronic mail (email) address, telephone number, and facsimile (fax) number of the MS4 operator; and
 - (2) The legal status of the MS4 operator (for example, federal government, state government, county government, city government, or other government).
- (b) Site Information
 - (1) The name, physical location description, and latitude and longitude of the approximate center of the regulated portion of the small MS4;
 - (2) County or counties where the small MS4 is located;
 - (3) An indication if all or a portion of the small MS4 is located on Indian Country Lands;
 - (4) The name, mailing address, telephone number, email (if available) and fax number of the designated person(s) responsible for implementing or coordinating implementation of the SWMP;
 - (5) A signature and certification on the NOI, according to 30 TAC § 305.44, that a SWMP has been developed according to the provisions of this permit;
 - (6) A statement that the applicant will comply with the Public Participation requirements described in Part II.E.12.;
 - (7) The name of each classified segment that receives discharges, directly or indirectly, from the small MS4. If one or more of the discharge(s) is not directly to a classified segment, then the name of the first classified segment that those discharges reach must be identified;
 - (8) The name of any MS4 receiving the discharge prior to discharge into waters of the U.S.;
 - (9) The name of all surface water(s) receiving discharges from the small MS4 that are on the latest EPA-approved CWA § 303(d) list of impaired waters;
 - (10) An indication of whether the small MS4 discharges within the Recharge Zone, the Contributing Zone or the Contributing Zone within the Transition Zone of the Edwards Aquifer; and
 - (11) Any other information deemed necessary by the executive director.

9. Notice of Change (NOC)

If the MS4 operator becomes aware that it failed to submit any relevant facts, or submitted incorrect information in the NOI, the correct information must be provided to the executive director in an NOC within 30 days after discovery. If any information provided in the NOI changes, an NOC must be submitted within 30 days from the time the permittee becomes aware of the change.

Any revisions that are made to the SWMP must be made in accordance with Parts II.E.4 through 6. Changes that are made to the SWMP following NOI approval must be made using an NOC form, in accordance with Part II.E.6.

Effective December 21, 2020, applicants must submit an NOC using the online e-permitting system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting reporting are not transferrable and expire on the same date as the authorization to discharge.

10. Change in Operational Control of a Small MS4

If the operational control of the regulated small MS4 changes, the previous operator must submit a Notice of Termination (NOT) and the new operator must submit an NOI and SWMP. The NOT and NOI must be submitted concurrently not more than ten (10) calendar days after the change occurs. Existing permittees who are expanding coverage of their MS4 area (e.g., city annexes part of unincorporated county MS4) are not required to submit a new NOI, but must comply with Part II.E.7.

11. Notice of Termination (NOT)

A permittee may terminate coverage under this general permit by providing a Notice of Termination (NOT) on a form approved by the executive director. Authorization to discharge terminates at midnight on the day that an NOT is postmarked for delivery to the TCEQ, or immediately following confirmation of receipt of the electronic NOT form by the TCEQ. A NOT must be submitted within 30 days after the MS4 operator obtains coverage under an individual permit.

Effective December 21, 2020, applicants must submit an NOT using the online e-permitting system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

12. Signatory Requirement for NOI, NOT, NOC, and Waiver Forms

NOI, NOT, NOC, and Waiver forms must be signed and certified consistent with 30 TAC § 305.44(a) and (b) (relating to Signatories to Applications).

13. Fees

An application fee of \$ 400.00 must be submitted with each NOI. A fee is not required for submission of a waiver form, an NOT, or an NOC.

A permittee authorized under this general permit must pay an annual Water Quality fee of \$100.00 under TWC § 26.0291 and 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

Effective December 21, 2020, applicants seeking coverage under an NOI or a waiver must submit their application electronically using the online e-permitting system available through the TCEQ website, or request and obtain a waiver from electronic reporting from

the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

14. Permit Expiration

- (a) This general permit is effective for five (5) years from the permit effective date. Authorizations for discharge under the provisions of this general permit will continue until the expiration date of the general permit. This general permit may be amended, revoked, or canceled by the commission or renewed by the TCEQ for an additional term not to exceed five (5) years.
- (b) If the executive director proposes to reissue this general permit before the expiration date, the general permit will remain in effect until the date on which the commission takes final action on the proposal to reissue this general permit. For existing permittees, general permit coverage will remain in effect after the expiration date of the existing general permit, in accordance with 30 TAC, Chapter 205. No new NOIs will be accepted and no new authorizations will be processed under the general permit after the expiration date.
- (c) Following issuance of a renewed or amended general permit, all permittees, including those covered under the expired general permit, may be required to submit an NOI according to the requirements of the new general permit or to obtain a TPDES individual permit for those discharges. The renewed permit will include a deadline to apply for coverage, and authorization for existing permittees will be automatically extended until the deadline to apply for coverage, or until an application is submitted for renewal, whichever occurs first.
- (d) If the TCEQ does not propose to reissue this general permit within 90 days before the expiration date, permittees must apply for authorization under a TPDES individual permit or an alternative general permit. If the application for an individual permit is submitted before the expiration date of this general permit, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit.

15. Suspension of Permit Coverage

The executive director may suspend an authorization under this general permit for the reasons specified in 30 TAC § 205.4(d) by providing the discharger with written notice of the decision to suspend that authority, and the written notice will include a brief statement of the basis for the decision. If the decision requires an application for an individual permit or an alternative general permit, the written notice will also include a statement establishing the deadline for submitting an application. The written notice will state that the authorization under this general permit is either suspended on the effective date of the commission's action on the permit application, unless the commission expressly provides otherwise, or immediately, if required by the executive director.

16. Public Notice Process for NOI submittal

An applicant under this general permit shall adhere to the following procedures:

- (a) The applicant shall submit an NOI and SWMP to the executive director. The SWMP must include information about:
 - (1) BMPs the applicant will implement for each of the six MCMs and program elements pursuant to Part II.D (relating to Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements), as appropriate;

- (2) The measurable goals for each of the BMPs and program elements pursuant to Part II.D.4 (relating to Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements), including, as appropriate the months and years in which the applicant will take the required actions, including interim milestones and the frequency of the action; and
- (3) The person or persons responsible for implementing or coordinating the applicants SWMP.
- (b) After the applicant receives written instructions from the TCEQ's Office of Chief Clerk, the applicant must publish notice of the executive director's preliminary decision on the NOI and SWMP.
- (c) The notice will include the following information, at a minimum:
 - (1) The legal name of the MS4 operator;
 - (2) Indication of whether the NOI is for a new authorization or is a renewal of an existing authorization;
 - (3) The address of the applicant;
 - (4) A brief summary of the information included in the NOI, such as the general location of the small MS4 and a description of the classified receiving waters that receive the discharges from the small MS4;
 - (5) The location and mailing address where the public may provide comments to the TCEQ;
 - (6) The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed; and
 - (7) If required by the executive director, the date, time, and location of the public meeting.
- (d) This notice must be published at least once in a newspaper of general circulation in the municipality or county where the small MS4 is located. If the small MS4 is located in multiple municipalities or counties, the notice must be published at least once in a newspaper of general circulation in the municipality or county containing the largest resident population for the regulated portion of the small MS4. This notice must provide opportunity for the public to submit comments on the NOI and SWMP. In addition, the notice must allow the public to request a public meeting. A public meeting (equivalent to a "public hearing" as required by 40 CFR §122.28(d)(2)(ii)) will be held if the TCEQ determines that there is significant public interest.
- (e) The public comment period begins on the first date the notice is published and lasts for at least 30 days. If a public meeting is held, the comment period will end at the closing of the public meeting (see paragraph (f) below). The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI or SWMP for the small MS4 fails to meet the technical requirements or conditions of this general permit.
- (f) If significant public interest exists, the executive director will direct the applicant to publish a notice of the public meeting and to hold the public meeting. The applicant shall publish notice of a public meeting at least 30 days before the meeting and hold the public meeting in a county where the small MS4 is located. TCEQ staff will facilitate the meeting.

- (g) If a public meeting is held, the applicant shall describe the contents of the NOI and SWMP. The applicant shall also provide maps and other data on the small MS4. The applicant shall provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the executive director. A public meeting held under this general permit is not an evidentiary proceeding.
- (h) The applicant shall file with the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Chief Clerk.
- (i) The executive director, after considering public comment, will either approve, approve with conditions, or deny the NOI based on whether the NOI and SWMP meet the requirements of this general permit.
- (j) Persons whose names and addresses appear legibly on the sign-in sheet from the public meeting and persons who submitted written comments to the TCEQ will be notified by the TCEQ's Office of Chief Clerk of the executive director's decision regarding the authorization.

Section F. Permitting Options

1. Authorization Under the General Permit

An operator of a small MS4 is required to obtain authorization either under this general permit, or under an individual TPDES permit if it is located in a UA or designated by the TCEQ. Multiple small MS4s with separate operators must individually submit an NOI to obtain coverage under this general permit, regardless of whether the systems are physically interconnected, located in the same UA, or are located in the same watershed. Each regulated small MS4 will be issued a distinct permit number. These MS4 operators may combine or share efforts in meeting any or all of the SWMP requirements stated in Part III of this general permit. MS4 operators that share SWMP development and implementation responsibilities must meet the following conditions:

(a) Participants

The SWMP must clearly list the name and permit number for each MS4 operator that chooses to contribute to development or implementation of the SWMP, and provide written confirmation that the contributing MS4 operator has agreed to contribute. If a contributing small MS4 has submitted a NOI and SWMP to TCEQ, but has not yet received written notification of approval, along with the accompanying permit authorization number, a copy of the submitted NOI form must be made readily available or be included in the SWMP.

(b) Responsibilities

Each permittee is entirely responsible for meeting SWMP requirements within the boundaries of its small MS4. Where a separate MS4 operator is contributing to implementation of the SWMP, the SWMP must clearly define each minimum control measure and the component(s) each entity agrees to implement, within which MS4 area(s) each entity agrees to implement and clearly identify the contributing MS4 operator.

2. Alternative Coverage under an Individual TPDES Permit

An MS4 operator eligible for coverage under this general permit may alternatively be authorized under an individual TPDES permit according to 30 TAC Chapter 305 (relating to Consolidated Permits). The executive director may require a MS4 operator, authorized by this general permit, to apply for an individual TPDES permit because of: the conditions of an approved TMDL or TMDL implementation plan; a history of substantive noncompliance; or other 30 TAC Chapter 205 considerations and requirements; or other sitespecific considerations. The executive director shall deny or suspend a facility's authorization for disposal under this general permit based on a rating of "unsatisfactory performer" according to commission rules in 30 TAC §60.3, Use of Compliance History. An applicant who owns or operates a facility classified as an "unsatisfactory performer" is entitled to a hearing before the commission prior to having its coverage denied or suspended, in accordance with TWC § 26.040(h).

Part III. Stormwater Management Program (SWMP)

To the extent allowable under state and local law, a SWMP must be developed, implemented, and enforced according to the requirements of Part III of this general permit for stormwater discharges that reach waters of the U.S., regardless of whether the discharge is conveyed through a separately operated storm sewer system. The SWMP must be developed, implemented, and enforced to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA and the TWC.

The SWMP must also be implemented and enforced in new MS4 areas added during the permit term. Implementation of appropriate BMPs for the new areas must occur in accordance with Part II.E.7.

A permittee that implements BMPs consistent with the provisions of their permit and SWMP constitutes compliance with the standard of reducing pollutants to the MEP and will be deemed in compliance with Part III of this permit. This permit does not extend any compliance deadlines set forth in the previous permit effective December 13, 2013.

Section A. Developing a Stormwater Management Program (SWMP)

1. SWMP Development and Schedule

(a) Existing regulated small MS4s

Permittees who were regulated under the previous TPDES general permit TXR040000, shall update and submit to the TCEQ an updated SWMP under this general permit along with the NOI for coverage. The NOI and SWMP are due within 180 days of the general permit effective date. The permittee shall continue to operate under the conditions of the previous permit and existing SWMP until the revised SWMP is approved.

(b) Implementation of the SWMP

Existing small MS4 operators shall ensure full implementation of any new elements in the revised SWMP as soon as practicable, but no later than five years from the permit effective date. Previously regulated MS4 operators shall continue to implement existing elements in the approved SWMPs until the revised SWMPs has been approved.

Designated small MS4s must achieve full implementation of the SWMP as soon as practicable, but no later than five years from designation.

2. Content of the SWMP

At a minimum, the permittee shall include the following information in its SWMP:

- (a) A description of Minimum Control Measures (MCM) with measureable goals, including, as appropriate, the months and years when the permittee will undertake required actions, including interim milestones and the frequency of the action for each MCM described in Part III, Section B.
- (b) A measurable goal that includes the development of ordinances or other regulatory mechanisms allowed by state, federal and local law, providing the legal authority necessary to implement and enforce the requirements of this permit, including information on any limitations to the legal authority;
- (c) The measurable goals selected by the permittee must be clear, specific, and measurable.
- (d) A summary of written procedures describing how the permittee will implement the provisions in Parts III and IV of this general permit.
- (e) A description of a program or a plan of compliance with the requirements in Part II.D.4. (relating to Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements)
- (f) Identification of any impaired waters that have been added in accordance with Part II.D.4.

3. Legal Authority

- (a) Traditional small MS4s, such as cities
 - (1) Within two years from the permit effective date, the permittee shall review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or shall adopt a new ordinance(s) or other regulatory mechanism(s) that provide the permittee with adequate legal authority to control pollutant discharges into and from its small MS4 in order to meet the requirements of this general permit.
 - (2) To be considered adequate, this legal authority must, at a minimum, address the following:
 - a. Authority to prohibit illicit discharges and illicit connections;
 - b. Authority to respond to and contain other releases Control the discharge of spills, and prohibit dumping or disposal of materials other than stormwater into the small MS4;
 - c. Authority to require compliance with conditions in the permittee's ordinances, permits, contracts, or orders;
 - d. Authority to require installation, implementation, and maintenance of control measures;
 - e. Authority to receive and collect information, such as stormwater plans, inspection reports, and other information deemed necessary to assess compliance with this permit, from operators of construction sites, new or redeveloped land, and industrial and commercial facilities;
 - f. Authority, as needed, to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the small MS4;

- g. Authority to respond to non-compliance with BMPs required by the small MS4 consistent with their ordinances or other regulatory mechanism(s);
- h. Authority to assess penalties, including monetary, civil, or criminal penalties; and
- i. Ability to enter into interagency or interlocal agreements or other maintenance agreements, as necessary.
- (b) Non-traditional small MS4s, such as counties, drainage districts, transportation entities, municipal utility districts, military bases, prisons, and universities
 - (1) Where the permittee lacks the authority to develop ordinances or to implement enforcement actions, the permittee shall exert enforcement authority as required by this general permit for its facilities, employees, contractors, and any other entity over which it has operational control within the portion of the UA under the jurisdiction of the permittee. For discharges from third party actions, the permittee shall perform inspections and exert enforcement authority to the MEP.
 - (2) If the permittee does not have inspection or enforcement authority and is unable to meet the goals of this general permit through its own powers, then, unless otherwise stated in this general permit, the permittee shall perform the following actions in order to meet the goals of the permit:
 - a. Enter into interlocal agreements with municipalities where the small MS4 is located. These interlocal agreements must state the extent to which the municipality will be responsible for inspections and enforcement authority in order to meet the conditions of this general permit; or,
 - b. If it is not feasible for the permittee to enter into interlocal agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or the appropriate TCEQ Regional Office to report discharges or incidents that it cannot itself enforce against. In determining feasibility for entering into interlocal agreements, the permittee shall consider all factors, including, without limitations, financial considerations and the willingness of the municipalities in which the small MS4 is located.

4. Resources

It is the permittee's responsibility to ensure that it has adequate resources and funding to implement the requirements of this permit.

5. Effluent Limitations

The controls and BMPs included in the SWMP constitute effluent limitations for the purposes of compliance with state rules. This includes the requirements of 30 TAC Chapter 319, Subchapter B, which lists the maximum allowable concentrations of hazardous metals for discharge to water in the state.

6. Enforcement Measures

Permittees with enforcement authority (i.e. traditional small MS4s) shall develop a standard operating procedure (SOP) to respond to violations to the extent allowable under state and local law. When the permittee does not have enforcement authority over the violator, and the violations continue after violator has been notified by the permittee, or the source of the illicit discharge is outside the MS4's boundary, the permittee shall notify either the adjacent MS4 operator with enforcement authority or the appropriate TCEQ Regional Office.
Section B. Minimum Control Measures

Operators of small MS4s seeking coverage under this general permit shall develop and implement a SWMP that includes the following six minimum control measures (MCMs), as applicable.

All program elements must be implemented according to the schedule mentioned in Part III.A. All six MCMs apply to all MS4s regardless of their level as described in Part II.A.5. Specific program elements under each MCM shall be implemented by all MS4 operators, unless it is specifically stated that particular program elements only are applicable for certain levels of small MS4s.

Permittees shall provide justification within the SWMP for any requirements that were not implemented because they were not feasible as described in each MCM.

1. Public Education, Outreach, and Involvement

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

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. The program must, at a minimum:

- a. Define the goals and objectives of the program based on high priority community-wide issues (for example, reduction of nitrogen in discharges from the small MS4, promoting previous techniques used in the small MS4, or improving the quality of discharges to the Edwards Aquifer);
- b. Identify the target audience(s);
- c. Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;
- d. Determine cost effective and practical methods and procedures for distribution of materials.
- (2) Throughout the permit term, all permittees shall make the educational materials available to convey the program's message to the target audience(s) at least annually.
- (3) If the permittee has a public website, the permittee shall post its SWMP and the annual reports required under Part IV.B.2. or a summary of the annual report on the permittee's website. The SWMP must be posted no later than 30 days after the approval date, and the annual report no later than 30 days after the due date.
- (4) All permittees shall annually review and update the SWMP and MCM implementation procedures required by Part III.A.2., as necessary. Any changes

must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.

- (5) MS4 operators may partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.
- (b) Public Involvement

All permittees shall involve the public, and, at minimum, comply with any state and local public notice requirements in the planning and implementation activities related to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. At a minimum, all permittees shall:

- (1) Consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;
- (2) Create opportunities for citizens to participate in the implementation of control measures, such as stream clean-ups, storm drain stenciling, volunteer monitoring, volunteer "Adopt-A-Highway" programs, and educational activities;
- (3) Ensure the public can easily find information about the SWMP.

2. Illicit Discharge Detection and Elimination (IDDE)

- (a) **Program Development**
 - (1) All permittees shall develop, implement, and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non-stormwater discharges, including illegal dumping to the MS4 system.

Existing permittees must assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of this permit term. (See also Part III.A.1(c).

The Illicit Discharge Detection and Elimination (IDDE) program must include the following:

- a. An up-to-date MS4 map (see Part III.B.2.(c)(1));
- b. Methods for informing and training MS4 field staff (see Part III.B.2.(c)(2));
- c. Procedures for tracing the source of an illicit discharge (see Part III. B.2.(c)(5));
- d. Procedures for removing the source of the illicit discharge (see Part III.B.2.(c)(5));

- e. For Level 2, 3 and 4 small MS4s, if applicable, procedures to prevent and correct any leaking on-site sewage disposal systems that discharge into the small MS4;
- f. For Level 4 small MS4s, procedures for identifying priority areas within the small MS4 likely to have illicit discharges, and a list of all such areas identified in the small MS4 (see Part III.B.2.(e)(1));
- g. For Level 4 small MS4s, field screening to detect illicit discharges (see Part III.B.2.(e)(2)); and
- h. For Level 4 small MS4s, procedures to reduce the discharge of floatables in the MS4. (see Part III.B.2.(e)(3).)
- (2) For non-traditional small MS4s, if illicit connections or illicit discharges are observed related to another operator's MS4, the permittee shall notify the other MS4 operator within 48 hours of discovery. If notification to the other MS4 operator is not practicable, then the permittee shall notify the appropriate TCEQ Regional Office of the possible illicit connection or illicit discharge.
- (3) If another MS4 operator notifies the permittee of an illegal connection or illicit discharge to the small MS4, then the permittee shall follow the requirements specified in Part III.B.2.(c)(3).
- (4) All permittees shall annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the TCEQ.
- (b) Allowable Non-Stormwater Discharges

Non-stormwater flows listed in Part II.C do not need to be considered by the permittee as an illicit discharge requiring elimination unless the permittee or the TCEQ identifies the flow as a significant source of pollutants to the small MS4.

(c) Requirements for all Permittees

All permittees shall include the requirements described below in Parts III.B.2(c)(1)-(6)

(1) MS4 mapping

All permittees shall maintain an up-to-date MS4 map, which must be located on site and available for review by the TCEQ. The MS4 map must show at a minimum the following information:

- a. The location of all small MS4 outfalls that are operated by the permittee and that discharge into waters of the U.S;
- b. The location and name of all surface waters receiving discharges from the small MS4 outfalls; and
- c. Priority areas identified under Part III.B.2.(e)(1), if applicable.
- (2) Education and Training

All permittees shall implement a method for informing or training all the permittee's field staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small MS4 as part of their normal job responsibilities. Training program materials and attendance lists must be maintained on site and made available for review by the TCEQ.

(3) Public Reporting of Illicit Discharges and Spills

All permittees shall publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4. The permittee shall provide a central contact point to receive reports; for example by including a phone number for complaints and spill reporting.

- (4) All permittees shall develop and maintain on-site procedures for responding to illicit discharges and spills.
- (5) Source Investigation and Elimination
 - a. Minimum Investigation Requirements Upon becoming aware of an illicit discharge, all permittees shall conduct an investigation to identify and locate the source of such illicit discharge as soon as practicable.
 - (i) All permittees shall prioritize the investigation of discharges based on their relative risk of pollution. For example, sanitary sewage may be considered a high priority discharge.
 - (ii) All permittees shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment.
 - (iii) All permittees shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.
 - b. Identification and Investigation of the Source of the Illicit Discharge –All permittees shall investigate and document the source of illicit discharges where the permittees have jurisdiction to complete such an investigation. If the source of illicit discharge extends outside the permittee's boundary, all permittees shall notify the adjacent permitted MS4 operator or the appropriate TCEQ Regional Office according to Part III.A.3.b.
 - c. Corrective Action to Eliminate Illicit Discharge

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

(6) Inspections –The permittee shall conduct inspections, in response to complaints, and shall conduct follow-up inspections to ensure that corrective measures have been implemented by the responsible party.

The permittee shall develop written procedures describing the basis for conducting inspections in response to complaints and conducting follow-up inspections.

(d) Additional Requirements for Level 3 and 4 small MS4s

In addition to the requirements described in Parts III.B.2(c)(1)-(6) above, permittees who operate Level 3 and 4 small MS4s shall meet the following requirements:

Source Investigation and Elimination

Permittees who operate Level 3 and 4 small MS4 shall upon being notified that the discharge has been eliminated, conduct a follow-up investigation or field screening, consistent with Part III.B.2.(e)(2), to verify that the discharge has been eliminated. The

permittee shall document its follow-up investigation. The permittee may seek recovery and remediation costs from responsible parties consistent with Part III.A.3., and require compensation related costs. Resulting enforcement actions must follow the procedures for enforcement action in Part III.A.3. If the suspected source of the illicit discharge is authorized under an NPDES/TPDES permit or the discharge is listed as an authorized non-stormwater discharge, as described in Part III.C, no further action is required.

(e) Additional Requirements for Level 4 small MS4s

In addition to the requirements described in Parts III.B.2(c)-(d) above, permittees who operate Level 4 small MS4s shall meet the following requirements:

(1) Identification of Priority Areas

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

(2) Dry Weather Field Screening

By the end of the permit term, permittees who operate Level 4 small MS4s shall develop and implement a written dry weather field screening program to assist in detecting and eliminating illicit discharges to the small MS4. Dry weather field screening must consist of (1) field observations; and (2) field screening according to item (2)c. below.

If dry weather field screening is necessary, at a minimum, the permittee shall:

- a. Conduct dry weather field screening in priority areas as identified by the permittee in Part III.B.2(e)(1). By the end of the permit term, all of those priority areas, although not necessarily all individual outfalls must be screened.
- b. Field observation requirements The permittee shall develop written procedures for observing flows from outfalls when there has been at least 72 hours of dry weather. The written procedures must include the basis used to determine which outfalls will be observed. The permittee shall record visual observations such as odor, color, clarity, floatables, deposits, or stains.
- c. Field screening requirements The permittee shall develop written procedures to determine which dry weather flows will be screened, based on results of field observations or complaint from the public or the permittee's trained field staff. At a minimum, when visual observations indicate a potential problem such as discolored flows, foam, surface sheen, and other similar indicators of contamination, the permittee shall conduct a field screening analysis for selected indicator pollutants. The basis for selecting the indicator pollutants must be described in the written procedures. Screening methodology may be modified based on experience gained during the actual field screening activities. The permittee shall document the method used.
- (3) Reduction of Floatables

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

The permittee shall maintain two locations where floatable material can be removed before the stormwater is discharged to or from the MS4. Floatable material shall be collected at the frequency necessary for maintenance of the removal devices, but not less than twice per year. The amount of material collected shall be estimated by weight, volume, or by other practical means. Results shall be included in the annual report.

3. Construction Site Stormwater Runoff Control

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

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the the program fully implemented by the end of this permit term.

If TCEQ waives requirements for stormwater discharges associated with small construction from a specific site(s), the permittee is not required to enforce the program to reduce pollutant discharges from such site(s).

(b) Requirements for all Permittees

All permittees shall include the requirements described below in Parts III.B.3(b)(1)-(7)

- (1) All permittees shall annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be included in the annual report. Such written procedures must be maintained on site or in the SWMP and made available for inspection by the TCEQ.
- (2) All permittees shall require that construction site operators implement appropriate erosion and sediment control BMPs. The permittee's construction program must ensure the following minimum requirements are effectively implemented for all small and large construction activities discharging to its small MS4.
 - a. Erosion and Sediment Controls Design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants.
 - b. Soil Stabilization Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures. In arid, semiarid, and drought-stricken areas, where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed.

The permittee shall develop written procedures that describes initiating and completing stabilization measures for construction sites.

- c. BMPs Design, install, implement, and maintain effective BMPs to minimize the discharge of pollutants to the small MS4. At a minimum, such BMPs must be designed, installed, implemented and maintained to:
 - (i) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters;
 - (ii) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
 - (iii) Minimize the discharge of pollutants from spills and leaks.
- d. As an alternative to (a) through (c) above, all permittees shall ensure that all small and large construction activities discharging to the small MS4 have developed and implemented a stormwater pollution prevention plan (SWP3) in accordance with the TPDES CGP TXR150000. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed and described in the written procedure required in item (2)b. above. As an alternative, vegetative stabilization measures may be implemented as soon as practicable.
- (3) Prohibited Discharges The following discharges are prohibited:
 - a. Wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control;
 - b. Wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials;
 - c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
 - d. Soaps or solvents used in vehicle and equipment washing; and
 - e. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs.
- (4) Construction Plan Review Procedures

To the extent allowable by state, federal, and local law, all permittees shall maintain and implement site plan review procedures that describe which plans will be reviewed as well as when an operator may begin construction. For those permittees without legal authority to enforce site plan reviews, this requirement is limited to those sites operated by the permittee and its contractors and located within the permittee's regulated area. The site plan procedures must meet the following minimum requirements:

- a. The site plan review procedures must incorporate consideration of potential water quality impacts.
- b. The permittee may not approve any plans unless the plans contain appropriate site specific construction site control measures that, at a minimum, meet the requirements described in Part III.B.3.(a) or in the TPDES CGP, TXR150000.

The permittee may require and accept a plan, such as a SWP3, that has been developed pursuant to the TPDES CGP, TXR150000.

(5) Construction Site Inspections and Enforcement

To the extent allowable by state, federal, and local law, all permittees shall implement procedures for inspecting large and small construction projects. Permittees without legal authority to inspect construction sites shall at a minimum conduct inspection of sites operated by the permittee or its contractors and that are located in the permittee's regulated area.

- a. The permittee shall conduct inspections based on the evaluation of factors that are a threat to water quality, such as: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-stormwater discharges; and past record of non-compliance by the operators of the construction site.
- b. Inspections must occur during the active construction phase.
 - (i) All permittees shall develop and implement updated written procedures outlining the inspection and enforcement requirements. These procedures must be maintained on-site or in the SWMP and be made available to TCEQ.
 - (ii) Inspections of construction sites must, at a minimum:
 - 1. Determine whether the site has appropriate coverage under the TPDES CGP, TXR150000. If no coverage exists, notify the permittee of the need for permit coverage;
 - 2. Conduct a site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the small MS4's requirements;
 - 3. Assess compliance with the permittee's ordinances and other regulations; and
 - 4. Provide a written or electronic inspection report.
- c. Based on site inspection findings, all permittees shall take all necessary followup actions (for example, follow-up-inspections or enforcement) to ensure compliance with permit requirements and the SWMP. These follow-up and enforcement actions must be tracked and maintained for review by the TCEQ.

For non-traditional small MS4s with no enforcement powers, the permittee shall notify the adjacent MS4 operator with enforcement authority or the appropriate TCEQ Regional Office according to Part III.A.3(b).

(6) Information submitted by the Public

All permittees shall develop, implement, and maintain procedures for receipt and consideration of information submitted by the public.

(7) MS4 Staff Training

All permittees shall ensure that all staff whose primary job duties are related to implementing the construction stormwater program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to

conduct these activities. The training may be conducted by the permittee or by outside trainers.

(c) Additional Requirements for Level 3 and 4 small MS4s

In addition to the requirements described in Parts III.B.3(b)(1)-(7) above, permittees who operate Level 3 and 4 small MS4s shall meet the following requirements:

Construction Site Inventory

Permittees who operate Level 3 and 4 small MS4s shall maintain an inventory of all permitted active public and private construction sites, that result in a total land disturbance of one or more acres or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale. Notification to the small MS4 must be made by submittal of a copy of an NOI or a small construction site notice, as applicable. The permittee shall make this inventory available to the TCEQ upon request.

4. Post Construction Stormwater Management in New Development and Redevelopment

- (a) Post-Construction Stormwater Management Program
 - (1) All permittees shall develop, implement, and enforce a program, to the extent allowable under state, federal, and local law, to control stormwater discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites. The program may utilize an offsite mitigation and payment in lieu of components to address this requirement.

Existing permittees shall assess program elements that were described in the previous permit and modify as necessary to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly regulated permittees shall have the program fully implemented by the end of the permit term.

- (2) All permittees shall use, to the extent allowable under state, federal, and local law and local development standards, an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects. The permittees shall establish, implement, and enforce a requirement that owners or operators of new development and redeveloped sites design, install, implement, and maintain a combination of structural and non-structural BMPs appropriate for the community and that protects water quality. If the construction of permanent structures is not feasible due to space limitations, health and safety concerns, cost effectiveness, or highway construction codes, the permittee may propose an alternative approach to TCEQ. Newly regulated permittees shall have the program element fully implemented by the end of the permit term.
- (b) Requirements for all Permittees

All permittees shall include the requirements described below in Parts III.B.4.(b)(1)-(3)

(1) All permittees shall annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2. Any changes must be

included in the annual report. Such written procedures must be maintained either on site or in the SWMP and made available for inspection by TCEQ.

- (2) All permittees shall document and maintain records of enforcement actions and make them available for review by the TCEQ.
- (3) Long-Term Maintenance of Post-Construction Stormwater Control Measures

All permittees shall, to the extent allowable under state, federal, and local law, ensure the long-term operation and maintenance of structural stormwater control measures installed through one or both of the following approaches:

- a. Maintenance performed by the permittee. (See Part III.B.5)
- b. Maintenance performed by the owner or operator of a new development or redeveloped site under a maintenance plan. The maintenance plan must be filed in the real property records of the county in which the property is located. The permittee shall require the owner or operator of any new development or redeveloped site to develop and implement a maintenance plan addressing maintenance requirements for any structural control measures installed on site. The permittee shall require operation and maintenance performed is documented and retained on site, such as at the offices of the owner or operator, and made available for review by the small MS4.
- (c) Additional Requirements for Level 4 small MS4s

In addition to the requirements described in Parts III.B.5(b)(1)-(3), permittees who operate Level 4 small MS4s shall meet the following requirements:

Inspections - Permittees who operate Level 4 small MS4s shall develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance plan. For small MS4s with limited enforcement authority, this requirement applies to the structural controls owned and operated by the small MS4 or its contractors that perform these activities within the small MS4's regulated area.

Inspection Reports - The permittee shall document its inspection findings in an inspection report and make them available for review by the TCEQ.

5. Pollution Prevention and Good Housekeeping for Municipal Operations

(a) Program development

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

Existing permittees shall assess program elements that were described in the previous permit, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharges of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term and newly

regulated permittees shall have the program fully implemented by the end of this permit term. (See also Part III.A.1.(c))

(b) Requirements for all Permittees

All permitees shall include the requirements described below in Parts III.B.5.(1)-(6) in the program:

(1) Permittee-owned Facilities and Control Inventory

All permittees shall develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the small MS4. The inventory must include all applicable permit numbers, registration numbers, and authorizations for each facility or controls. The inventory must be available for review by TCEQ and must include, but is not limited, to the following, as applicable:

- a. Composting facilities;
- b. Equipment storage and maintenance facilities;
- c. Fuel storage facilities;
- d. Hazardous waste disposal facilities;
- e. Hazardous waste handling and transfer facilities;
- f. Incinerators;
- g. Landfills;
- h. Materials storage yards;
- i. Pesticide storage facilities;
- j. Buildings, including schools, libraries, police stations, fire stations, and office buildings;
- k. Parking lots;
- l. Golf courses;
- m. Swimming pools;
- n. Public works yards;
- o. Recycling facilities;
- p. Salt storage facilities;
- q. Solid waste handling and transfer facilities;
- r. Street repair and maintenance sites;
- s. Vehicle storage and maintenance yards; and
- t. Structural stormwater controls.
- (2) Training and Education

All permittees shall inform or train appropriate employees involved in implementing pollution prevention and good housekeeping practices. All permittees shall maintain a training attendance list for inspection by TCEQ when requested.

- (3) Disposal of Waste Material Waste materials removed from the small MS4 must be disposed of in accordance with 30 TAC Chapters 330 or 335, as applicable.
- (4) Contractor Requirements and Oversight
 - a. Any contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures described in Parts III B.5.(b)(2)-(6).
 - b. All permittees shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and SOPs. Oversight procedures must be maintained on-site and made available for inspection by TCEQ.
- (5) Municipal Operation and Maintenance Activities
 - a. Assessment of permittee-owned operations

All permittees shall evaluate operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater, including but not limited to:

- (i) Road and parking lot maintenance, including such areas as pothole repair, pavement marking, sealing, and re-paving;
- (ii) Bridge maintenance, including such areas as re-chipping, grinding, and saw cutting;
- (iii) Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas; and
- (iv) Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation.
- b. All permittees shall identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene, toluene, ethyl benzene, and xylenes; sediment; and trash).
- c. All permittees shall develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from the above activities. These pollution prevention measures may include the following examples:
 - (i) Replacing materials and chemicals with more environmentally benign materials or methods;
 - (ii) Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
 - (iii) Placing barriers around or conducting runoff away from deicing chemical storage areas to prevent discharge into surface waters.
- d. Inspection of pollution prevention measures All pollution prevention measures implemented at permittee-owned facilities must be visually inspected to ensure they are working properly. The permittee shall develop written procedures that describes frequency of inspections and how they will

be conducted. A log of inspections must be maintained and made available for review by the TCEQ upon request.

(6) Structural Control Maintenance

If BMPs include structural controls, maintenance of the controls must be performed by the permittee and consistent with maintaining the effectiveness of the BMP. The permittee shall develop written procedures that define the frequency of inspections and how they will be conducted.

(c) Additional Requirements for Level 3 and 4 small MS4s:

In addition to the requirements described in Parts.B.5.(b)(1)-(6) above, permittees who operate Level 3 or 4 small MS4s shall meet the following requirements:

- (1) Storm Sewer System Operation and Maintenance
 - a. Permittees who operate Level 3 or 4 small MS4s shall develop and implement an O&M program to reduce to the maximum extent practicable the collection of pollutants in catch basins and other surface drainage structures.
 - b. Permittees who operate Level 3 or 4 small MS4s shall develop a list of potential problem areas. The permittees shall identify and prioritize problem areas for increased inspection (for example, areas with recurrent illegal dumping).
- (2) Operation and Maintenance Program to Reduce Discharges of Pollutants from Roads

Permittees who operate Level 3 or 4 small MS4s shall implement an O&M program that includes at least one of the following: a street sweeping and cleaning program, or an equivalent BMP such as an inlet protection program, which must include an implementation schedule and a waste disposal procedure. The basis for the decision must be included in the SWMP. If a street sweeping and cleaning program is implemented, the permittee shall evaluate the following permittee-owned and operated areas for the program: streets, road segments, and public parking lots including, but not limited to, high traffic zones, commercial and industrial districts, sport and event venues, and plazas, as well as areas that consistently accumulate high volumes of trash, debris, and other stormwater pollutants.

- a. Implementation schedules If a sweeping program is implemented, the permittee shall sweep the areas in the program (for example, the streets, roads, and public parking lots) in accordance with a frequency and schedule determined in the permittee's O&M program.
- b. For areas where street sweeping is technically infeasible (for example, streets without curbs), the permittee shall focus implementation of other trash and litter control procedures, or provide inlet protection measures to minimize pollutant discharges to storm drains and creeks.
- c. Sweeper Waste Material Disposal If utilizing street sweepers, the permittee shall develop a procedure to dewater and dispose of street sweeper waste material and shall ensure that water and material will not reenter the small MS4.

(3) Mapping of Facilities

Permittees who operate Level 3 or 4 small MS4s shall, on a map of the area regulated under this general permit, identify where the permittee-owned and operated facilities and stormwater controls are located.

(4) Facility Assessment

Permittees who operate Level 3 or 4 small MS4s shall perform the following facility assessment in the regulated portion of the small MS4 operated by the permittee:

- a. Assessment of Facilities' Pollutant Discharge Potential The permittee shall review the facilities identified in Part III.B.5.(b) once per permit term for their potential to discharge pollutants into stormwater.
- b. Identification of *high priority* facilities Based on the Part III.B.5.(c)(4)a. assessment, the permittee shall identify as *high priority* those facilities that have a high potential to generate stormwater pollutants and shall document this in a list of these facilities. Among the factors that must be considered in giving a facility a high priority ranking are the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s). High priority facilities must include, at a minimum, the permittee's maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in stormwater.
- c. Documentation of Assessment Results The permittee shall document the results of the assessments and maintain copies of all site evaluation checklists used to conduct the assessments. The documentation must include the results of the permittee's initial assessment, and any identified deficiencies and corrective actions taken.
- (5) Development of Facility Specific SOPs

Permittees who operate Level 3 or 4 small MS4s shall develop facility specific stormwater management SOPs. The permittee may utilize existing plans or documents that may contain the following required information:

- a. For each high priority facility identified in Part III.B.5.(c)(4)b., the permittee shall develop a SOP that identifies BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in stormwater from each facility.
- b. A hard or electronic copy of the facility-specific stormwater management SOP (or equivalent existing plan or document) must be maintained and be available for review by the TCEQ. The SOP must be kept on site when possible and must be kept up to date.
- (6) Stormwater Controls for High Priority Facilities

Permittees who operate Level 3 or 4 small MS4s shall implement the following stormwater controls at all high priority facilities identified in Part III.B.5.(c) (4)b. A description of BMPs developed to comply with this requirement must be included in each facility specific SOP:

- a. General good housekeeping Material with a potential to contribute to stormwater pollution must be sheltered from exposure to stormwater.
- b. De-icing and anti-icing material storage The permittee shall ensure, to the MEP, that stormwater runoff from storage piles of salt and other de-icing and anti-icing materials is not discharged; or shall ensure that any discharges from the piles are authorized under a separate discharge permit.
- c. Fueling operations and vehicle maintenance The permittee shall develop SOPs (or equivalent existing plans or documents) that address spill prevention and spill control at permittee-owned and operated vehicle fueling, vehicle maintenance, and bulk fuel delivery facilities.
- d. Equipment and vehicle washing The permittee shall develop SOPs that address equipment and vehicle washing activities at permittee-owned and operated facilities. The discharge of equipment and vehicle wash water to the small MS4 or directly to receiving waters from permittee-owned facilities is not authorized under this general permit. To ensure that wastewater is not discharged under this general permit, the permittee's SOP may include installing a vehicle wash reclaim system, capturing and hauling the wastewater for proper disposal, connecting to sanitary sewer (where applicable and approved by local authorities), ceasing the washing activity, or applying for and obtaining a separate TPDES permit.
- (7) Inspections

Permittees who operate Level 3 or 4 small Ms4s shall develop and implement an inspection program, which at a minimum must include periodic inspections of high priority permittee-owned facilities. The results of the inspections and observations must be documented and available for review by the TCEQ.

(d) Additional Requirements for Level 4 small MS4s:

In addition to all the requirements described in Parts III.B.5(b) and III.B.5.(c) above, permittees who operate Level 4 small MS4s shall meet the following requirements:

- (1) Pesticide, Herbicide, and Fertilizer Application and Management
 - a. Landscape maintenance The permittee shall evaluate the materials used and activities performed on public spaces owned and operated by the permittee such as parks, schools, golf courses, easements, public rights of way, and other open spaces for pollution prevention opportunities. Maintenance activities for the turf landscaped portions of these areas may include mowing, fertilization, pesticide application, and irrigation. Typical pollutants include sediment, nutrients, hydrocarbons, pesticides, herbicides, and organic debris.
 - b. The permittee shall implement the following practices to minimize landscaping-related pollutant generation with regard to public spaces owned and operated by the permittee:
 - (i) Educational activities, permits, certifications, and other measures for the permittee's applicators and distributors.
 - (ii) Pest management measures that encourage non-chemical solutions where feasible. Examples may include:
 - (a) Use of native plants or xeriscaping;

- (b) Keeping clippings and leaves out the small MS4 and the street by encouraging mulching, composting, or landfilling;
- (c) Limiting application of pesticides and fertilizers if precipitation is forecasted within 24 hours, or as specified in label instructions;
- (d) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing motorist safety.
- c. The permittee shall develop schedules for chemical application in public spaces owned and operated by the permittee that minimize the discharge of pollutants from the application due to irrigation and expected precipitation.
- d. The permittee shall ensure collection and proper disposal of the permittee's unused pesticides, herbicides, and fertilizers.
- (2) Evaluation of Flood Control Projects

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

6. Industrial Stormwater Sources

Permittees operating a Level 4 small MS4 shall include the requirements described below in Part III. B.6(a) and (b) – this requirement is only applicable to Level 4 MS4s

- (a) Permittees who operate Level 4 small MS4s shall identify and control pollutants in stormwater discharges to the small MS4 from permittee's landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the small MS4.
- (b) The program must include priorities and procedures for inspections and for implementing control measures for such industrial discharges.

7. Authorization for Construction Activities where the Small MS4 is the Site Operator

The development of this MCM for construction activities, where the small MS4 is the site operator, is optional and provides an alternative to the MS4 operator seeking coverage under TPDES CGP, TXR150000 for each construction activity. Permittees that choose to develop this measure will be authorized to discharge stormwater and certain non-stormwater from construction activities where the MS4 operator meets the definition of a construction site operator in Part I of this general permit.

When developing this measure, permittees are required to meet all requirements of, and be consistent with, applicable effluent limitation guidelines for the Construction and Development industry (40 CFR Part 450), TPDES CGP TXR150000, and Part III.B.3 of this permit.

The authorization to discharge under this MCM is limited to the regulated area, such as the portion of the small MS4 located within a UA or the area designated by TCEQ as requiring

coverage. However, an MS4 operator may also utilize this MCM over additional portions of their small MS4 that are also in compliance with all of the MCMs listed in this general permit.

This MCM must be developed as a part of the SWMP that is submitted with the NOI for permit coverage. If this MCM is developed after submitting the initial NOI, an NOC must be submitted notifying the executive director of this change, and identifying the geographical area or boundary where the activities will be conducted under the provisions of this general permit.

Utilization of this MCM does not preclude a small MS4 from obtaining coverage under the TPDES CGP, TXR150000, or under an individual TPDES permit.

This MCM is only available for projects where the small MS4 is a construction site operator or owner, and the MCM does not provide any authorization for other construction site operators at a municipal project.

Controls required under this MCM must be implemented prior to discharge from a municipal construction site into surface water in the state.

The MCM must include:

- (a) A description of how construction activities will generally be conducted by the permittee so as to take into consideration local conditions of weather, soils, and other site-specific considerations;
- (b) A description of the area that this MCM will address and where the permittee's construction activities are covered (for example within the boundary of the urbanized area, the corporate boundary, a special district boundary, an extra territorial jurisdiction, or other similar jurisdictional boundary);
- (c) Either a description of how the permittee will supervise or maintain oversight over contractor activities to ensure that the SWP3 requirements are properly implemented at the construction site; or how the permittee will make certain that contractors have a separate authorization for stormwater discharges;
- (d) A general description of how a SWP3 will be developed for each construction site, according to Part VI of this general permit, "Authorization for Municipal Construction Activities"; and
- (e) Records of municipal construction activities authorized under this optional MCM, in accordance with Part VI of this general permit.

Section C. General Requirements

Permittees shall provide information in the SWMP documenting the development and implementation of the program. At a minimum, the documentation must include:

- 1. A list of any public or private entities assisting with the development or implementation of the SWMP;
- 2. If applicable, a list of all MS4 operators contributing to the development and implementation of the SWMP, including a clear description of the contribution;
- 3. A list of all BMPs and measurable goals for each of the MCMs;
- 4. A schedule for the implementation of all SWMP requirements. The schedule must include, as appropriate, the months and years in which the permittee will undertake

required actions, including interim milestones and the frequency of the action throughout the permit term.

- 5. A description of how each measurable goal will be evaluated; and
- 6. A rationale statement that addresses the overall program, including how the BMPs and measurable goals were selected.

Part IV. Recordkeeping and Reporting

Section A. Recordkeeping

- 1. The permittee shall retain all records, a copy of this TPDES general permit, and records of all data used to complete the application (NOI) for this general permit and satisfy the public participation requirements, for a period of at least three (3) years, or for the remainder of the term of this general permit, whichever is longer. This period may be extended by request of the executive director at any time.
- 2. The permittee shall submit the records to the executive director only when specifically asked to do so. The SWMP required by this general permit (including a copy of the general permit) must be retained at a location accessible to the TCEQ.
- 3. The permittee shall make the NOI and the SWMP available to the public at reasonable times during regular business hours, if requested to do so in writing. Copies of the SWMP must be made available within ten (10) working days of receipt of a written request. Other records must be provided in accordance with the Texas Public Information Act. However, all requests for records from federal facilities must be made in accordance with the Freedom of Information Act.
- 4. The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

Section B. Reporting

1. General Reporting Requirements

(a) Noncompliance Notification

According to 30 TAC § 305.125(9), any noncompliance which may endanger human health or safety, or the environment, must be reported by the permittee to the TCEQ. Report of such information must be provided orally or by fax to the TCEQ Regional Office within 24 hours of becoming aware of the noncompliance. A written report must be provided by the permittee to the appropriate TCEQ Regional Office and to the TCEQ Enforcement Division (MC-224) within five working days of becoming aware of the noncompliance. The written report must contain:

- (1) A description of the noncompliance and its cause;
- (2) The potential danger to human health or safety, or the environment;
- (3) The period of noncompliance, including exact dates and times;
- (4) If the noncompliance has not been corrected, the anticipated time it is expected to continue; and

- (5) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- (b) Other Information

When the permittee becomes aware that it either submitted incorrect information or failed to submit complete and accurate information requested in an NOI, NOT, or NOC, or any other report, the permittee shall promptly submit the facts or information to the executive director.

2. Annual Report

The MS4 operator shall submit a concise annual report to the executive director within 90 days of the end of each reporting year. For the purpose of this section, the reporting year may include either the permit year, the permittee's fiscal year or the calendar year, as elected by the small MS4 and notified to the TCEQ in the application submittal. The annual report must address the previous reporting year.

The first reporting year for annual reporting purposes shall begin on the permit effective date and shall last for a period of one (1) year (the end of the "permit year"). Alternatively, if the permittee elects to report based on its fiscal year, the first reporting year will last until the end of the fiscal year immediately following the issuance date of this permit. If the permittee elects to report based on the calendar year, then the first reporting year will last until last until December 31, 2019.

Subsequent calendar years will begin at the beginning of the first reporting year (which will vary based on the previous paragraph) and last for one (1) year. The MS4 operator shall also make a copy of the annual report readily available for review by TCEQ personnel upon request. The report must include:

- (a) The status of the compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals;
- (b) A summary of the results of information collected and analyzed, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;
- (c) If applicable, a summary of any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4s BMPs used to address the pollutant of concern;
- (d) A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting year;
- (e) Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;
- (f) Description and schedule for implementation of additional BMP's that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans. For waters that are listed as impaired after discharge authorization pursuant to Part II.D.4, include a list of such waters and the pollutant(s) causing the impairment, and a summary of any actions taken to comply with the requirements of Part II.D.4.b.;
- (g) Notice that the MS4 operator is relying on another government entity to satisfy some of its permit obligations (if applicable);

- (h) The number of construction activities where the small MS4 is the operator and authorized under the 7th optional MCM, including the total number of acres disturbed; and
- (i) The number of construction activities that occurred within the jurisdictional area of the small MS4 (as noticed to the permittee by the construction operator), and that were not authorized under the 7th MCM.

MS4s authorized under the previous version of the permit must prepare an annual report whether or not the NOI and SWMP have been approved by the TCEQ. If the permittee has either not implemented the SWMP or not begun to implement the SWMP because it has not received approval of the NOI and SWMP, then the annual report may include that information.

If permittees share a common SWMP, they shall contribute to and submit a single systemwide report. Each permittee shall sign and certify the annual report in accordance with 30 TAC § 305.128 (relating to Signatories to Reports).

The annual report must be submitted with the appropriate TCEQ reporting forms if available, or as otherwise approved by TCEQ.

The annual report must be submitted to the following address:

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

A copy of the annual report must also be submitted to the TCEQ Regional Office that serves the area of the regulated small MS4, except if the report is submitted electronically.

Effective December 21, 2020, annual reports must be submitted using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

Part V. Standard Permit Conditions

- A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the general permit and statutes under which it was issued, and is grounds for enforcement action, for terminating coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit.
- B. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- C. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- D. Authorization under this general permit may be suspended or revoked for cause. Filing a notice of planned changes or anticipated non-compliance by the permittee does not stay any permit condition. The permittee shall furnish to the executive director, upon

request and within a reasonable timeframe, any information necessary for the executive director to determine whether cause exists for modifying, revoking, suspending, reissuing or terminating authorization under this general permit. Additionally, the permittee shall provide to the executive director, upon request, copies of all records that the permittee shall maintain as a condition of this general permit.

- E. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to achieve compliance with the conditions of this permit and with the condition of the permittee's SWMP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed only when the operation is necessary to achieve compliance with the conditions of this permit.
- F. Inspection and entry shall be allowed under the TWC Chapters 26-28, Health and Safety Code §§ 361.032-361.033 and 361.037, and 40 CFR §122.41(i). The statement in TWC § 26.014 that commission entry of a facility shall occur according to an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility or site, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.
- G. The discharger is subject to administrative, civil, and criminal penalties, as applicable, under the TWC, Chapters 26, 27, and 28, and the Texas Health and Safety Code, Chapter 361 for violations including but not limited to the following:
 - 1. Negligently or knowingly violating CWA, §§ 301, 302, 303, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA, § 402; and
 - 2. Knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.
- H. All reports and other information requested by or submitted to the executive director must be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).
- I. Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.
- J. The permittee shall implement its SWMP on any new areas under its jurisdiction that are located in a UA or that are designated by the TCEQ. Implementation of the SWMP in these areas is required three (3) years from acquiring the new area, or five (5) years from the date of initial permit coverage.

Part VI. Authorization for Municipal Construction Activities – Applicable only if the 7th Optional MCM is selected

The MS4 operator may obtain authorization under TPDES CGP, TXR150000 to discharge stormwater runoff from each construction activity performed by the MS4 operator that results in a land disturbance of one (1) acre or more of land or less than one (1) acre of land, if the construction activity is part of a larger common plan of development or sale that would disturb one acre or more. Alternatively, the MS4 operator may develop the SWMP to include the optional seventh (7th) stormwater MCM listed in Part III.B.7 of this general permit if the eligibility requirements in Part VI.A. below are met.

If an MS4 operator decides to utilize this MCM, then the MS4 operator must include this MCM in its SWMP submitted with the NOI or submit an NOC notifying the executive director of the addition of this MCM to its SWMP. The MS4 operator must identify the geographic area or boundary where the construction activities will be conducted under the provisions of this general permit. If the permittee meets the terms and requirements of this general permit, then discharges from these construction activities may be authorized under this general permit as long as they occur within the regulated geographic area of the small MS4.

An MS4 operator may utilize this MCM over additional portions of their small MS4 if those areas are also in compliance with all MCMs listed in this general permit. Even if an MS4 operator has developed this optional seventh stormwater MCM, the MS4 operator may apply under TPDES CGP TXR150000 for authorization for particular municipal construction activities including those activities that occur during periods of low potential for erosion (for which no SWP3 must be developed).

Section A. Eligible Construction Sites

Discharges from construction activities within the regulated area where the MS4 operator meets the definition of construction site operator are eligible for authorization under this general permit. Discharges from construction activities outside of the regulated area, where the MS4 operator meets the definition of construction site operator, are only eligible for authorization under this general permit in those areas where the MS4 operator meets the requirements of Parts III.B.1. through III.B.6 of this general permit, related to MCMs.

Section B. Discharges Eligible for Authorization

1. Stormwater Associated with Construction Activity

Discharges of stormwater runoff from small and large construction activities may be authorized under this general permit.

2. Discharges of Stormwater Associated with Construction Support Activities

Discharges of stormwater runoff from construction support activities, including concrete batch plants, asphalt batch plants, equipment staging areas, material storage yards, material borrow areas, and excavated material disposal areas may be authorized under this general permit provided:

(a) The activity is located within a one-mile distance from the boundary of the permitted construction site and directly supports the construction activity;

- (b) A SWP3 is developed according to the provisions of this general permit and includes appropriate controls and measures to control sediment and erosion and discharge of pollutants in stormwater runoff from the supporting construction activity site;
- (c) The construction support activity either does not operate beyond the completion date of the construction activity or obtains separate TPDES authorization for discharges as required; and
- (d) Discharge of stormwater from concrete production facilities must meet the requirements in Section E below

3. Non-Stormwater Discharges

The following non-stormwater discharges from construction sites authorized under this general permit are also eligible for authorization under this MCM:

- (a) Discharges from emergency fire fighting activities (fire fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
- (b) Uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
- (c) Water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
- (d) Uncontaminated water used to control dust;
- (e) Potable water sources including waterline flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
- (f) Uncontaminated air conditioning condensate; and
- (g) Uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents.

4. Other Permitted Discharges

Any discharge authorized under a separate TPDES or TCEQ permit may be combined with discharges from construction sites operated by the small MS4, provided the discharge complies with the associated permit.

Section C. Limitations on Permit Coverage

Discharges that occur after construction activities have been completed, and after the construction site and any supporting activity site have undergone final stabilization, are not eligible for coverage under Part VI of the general permit.

Section D. Stormwater Pollution Prevention Plan (SWP3) Requirements

Operators of municipal construction activities that qualify for coverage under this general permit and that discharge stormwater associated with construction activities into surface water in the state must:

- 1. Develop a SWP3 according to the provisions of this general permit that covers the entire site and begin implementation of that plan prior to commencing construction activities;
- 2. Post a signed copy of a TCEQ approved site notice in a location at the construction site where it is readily available for viewing prior to commencing construction activities and maintain the notice in that location until completion of the construction activity and final stabilization of the site;
- 3. Ensure the project specifications allow or provide that adequate BMPs may be developed and modified as necessary to meet the requirements of this general permit and the SWP3;
- 4. Ensure all contractors are aware of the SWP3 requirements, are aware that municipal personnel are responsible for the day-to-day operations of the SWP3, and who to contact concerning SWP3 requirements; and
- 5. Ensure that the SWP3 identifies the municipal personnel responsible for implementation of control measures described in the plan.

Section E. Stormwater Runoff from Concrete Batch Plants

Discharges of stormwater runoff from concrete batch plants at regulated construction sites may be authorized under the provisions of this general permit provided that the following requirements are met for concrete batch plant(s) authorized under this permit. If discharges of stormwater runoff from concrete batch plants are not covered under this general permit, then discharges must be authorized under an alternative general permit or an individual permit. This permit does not authorize the discharge or land disposal of any wastewater from concrete batch plants at regulated construction sites. Authorization for these wastes must be obtained under an individual permit or an alternative general permit.

1. Benchmark Sampling Requirements

(a) Operators of concrete batch plants authorized under this section must sample the stormwater runoff from the concrete batch plants according to the requirements of this section of the general permit, and must conduct evaluations of the effectiveness of the SWP3 based on the following benchmark monitoring values:

| Benchmark Parameters | Benchmark Value | Sampling Frequency | Sample Type |
|-----------------------------|--------------------|-----------------------|----------------|
| Oil and Grease (*1) | 15 mg/L | 1/quarter (*2)(*3) | Grab (*4) |
| Total Suspended Solids (*1) | 50 mg/L | 1/quarter (*2)(*3) | Grab (*4) |
| pH (*1) | 6.0-9.0 S.U. | 1/quarter (*2)(*3) | Grab (*4) |
| Total Iron (*1) | 1.3 mg/L | 1/quarter (*2)(*3) | Grab (*4) |

Table 1. Benchmark Monitoring

- (*1) Analytical data intended for compliance with benchmark monitoring requirements must be analyzed by a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory based on state rules located in 30 TAC Chapter 25. Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §136.1(c) and 40 CFR §122.44(i)(1)(iv).
- (*2) When discharge occurs. Sampling is required within the first 30 minutes of discharge. If it is not practicable to take the sample, or to complete the sampling, within the first 30 minutes, sampling must be completed within the first hour of discharge. If sampling is not completed within the first 30 minutes of discharge, the reason must be documented and attached to all required reports and records of the sampling activity.
- (*3) Sampling must be conducted at least once during each of the following periods. The first sample must be collected during the first full quarter that a stormwater discharge occurs from a concrete batch plant authorized under this general permit.
 - January through March
 - April through June
 - July through September
 - October through December

For projects lasting less than one full quarter, a minimum of one sample shall be collected, provided that a stormwater discharge occurred at least once following submission of the NOI.

- (*4) A grab sample shall be collected from the stormwater discharge resulting from a storm event that is at least 0.1 inches of measured precipitation that occurs at least 72 hours from the previously measurable storm event. The sample shall be collected downstream of the concrete batch plant, and where the discharge exits any BMPs utilized to handle the runoff from the batch plant, prior to commingling with any other water authorized under this general permit.
- (b) The permittee shall compare the results of sample analyses to the benchmark values above, and must include this comparison in the overall assessment of the SWP3's effectiveness. Analytical results that exceed a benchmark value are not a violation of this permit, as these values are not numeric effluent limitations. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. The operator must investigate the cause for each exceedance and must document the results of this investigation in the SWP3 by the end of the quarter following the sampling event.

The operator's investigation must identify the following:

- (1) Any additional potential sources of pollution, such as spills that might have occurred;
- (2) Necessary revisions to good housekeeping measures that are part of the SWP3;
- (3) Additional BMPs, including a schedule to install or implement the BMPs; and
- (4) Other parts of the SWP3 that may require revisions in order to meet the goal of the benchmark values.

Background concentrations of specific pollutants may also be considered during the investigation. If the operator is able to relate the cause of the exceedance to background concentrations, then subsequent exceedances of benchmark values for that pollutant may be resolved by referencing earlier findings in the SWP3. Background concentrations may be identified by laboratory analyses of samples of stormwater run-on to the permitted facility, by laboratory analyses of samples of stormwater run-off from adjacent non-industrial areas, or by identifying the pollutant is a naturally occurring material in soils at the site.

2. BMPs and SWP3 Requirements

Minimum Stormwater Pollution Prevention Plan (SWP3) Requirements - The following are required in addition to other SWP3 requirements listed in this section:

- (a) Description of Potential Pollutant Sources The SWP3 must provide a description of potential sources (activities and materials) that may reasonably be expected to affect the quality of stormwater discharges associated with concrete batch plants authorized under this permit. The SWP3 must describe practices that that will be used to reduce the pollutants in these discharges to assure compliance with this general permit, including the protection of water quality, and must ensure the implementation of these practices. The following must be developed, at a minimum, in support of developing this description:
 - (1) Drainage The site map must include the following information:
 - a. The location of all outfalls for stormwater discharges associated with concrete batch plants that are authorized under this permit;
 - b. A depiction of the drainage area and the direction of flow to the outfall(s);
 - c. Structural controls used within the drainage area(s);
 - d. The locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes listed in the TPDES CGP TXR150000; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and
 - e. The locations of the following: any bag house or other dust control device(s); recycle or sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
 - (2) Inventory of Exposed Materials A list of materials handled at the concrete batch plant that may be exposed to stormwater and that have a potential to affect the quality of stormwater discharges associated with concrete batch plants that are authorized under this general permit.
 - (3) Spills and Leaks A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and that drain to stormwater outfalls associated with concrete batch plants authorized under this general permit must be developed, maintained, and updated.
 - (4) Sampling Data A summary of existing stormwater discharge sampling data must be maintained, if available.

- (b) Measures and Controls The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" from Part VI.E.2. (a) of this permit, and a schedule for implementation of the measures and controls. This must include, at a minimum:
 - (1) Good Housekeeping Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.
 - a. Operators must prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater.

Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement or aggregate is being handled or otherwise processed in the area.

- b. Operators must prevent the exposure of fine granular solids, such as cement, to stormwater. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.
- (2) Spill Prevention and Response Procedures Areas where potential spills that can contribute pollutants to stormwater runoff, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.
- (3) Inspections Qualified facility personnel (for example, a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) must be identified to inspect designated equipment and areas of the facility specified in the SWP3. The inspection frequency must be specified in the SWP3 based upon a consideration of the level of concrete production at the facility, but must be a minimum of once per month while the facility is in operation. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection or containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspection. Records of inspections must be maintained and be made readily available for inspection upon request.
- (4) Employee Training An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one training prior to the initiation of operation of the concrete batch plant.
- (5) Record Keeping and Internal Reporting Procedures A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.

- (6) Management of Runoff The SWP3 shall contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.
- (c) Comprehensive Compliance Evaluation At least once per year, one (1) or more qualified personnel (for example, a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) shall conduct a compliance evaluation of the plant. The evaluation must include the following:
 - (1) Visual examination of all areas draining stormwater associated with regulated concrete batch plants for evidence of, or the potential for, pollutants entering the drainage system. These include but are not limited to: cleaning areas, material handling areas, above ground storage tanks, hoppers or silos, dust collection or containment systems, and truck wash down and equipment cleaning areas. Measures implemented to reduce pollutants in runoff (including structural controls and implementation of management practices) must be evaluated to determine if they are effective and if they are implemented in accordance with the terms of this permit and with the permittee's SWP3. The operator shall conduct a visual inspection of equipment needed to implement the SWP3, such as spill response equipment.
 - (2) Based on the results of the evaluation, the following must be revised as appropriate within two (2) weeks of the evaluation: the description of potential pollutant sources identified in the SWP3 (as required in Part VI.E.2(a), "Description of Potential Pollutant Sources"); and pollution prevention measures and controls identified in the SWP3 (as required in Part VI.E.2.(b) "Measures and Controls"). The revisions may include a schedule for implementing the necessary changes.
 - (3) The permittee shall prepare and include in the SWP3 a report summarizing the scope of the evaluation, the personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWP3, and actions taken in response to the findings of the evaluation. The report must identify any incidents of noncompliance. Where the report does not identify incidences of noncompliance, the report must contain a statement that the evaluation did not identify any incidence(s), and the report must be signed according to 30 TAC §305.128, relating to Signatories to Reports.
 - (4) The Comprehensive Compliance Evaluation may substitute for one of the required inspections delineated in Part VI.E.2.(b)(3) of this general permit.

3. Prohibition of Wastewater Discharges

Wastewater discharges associated with concrete production including wastewater disposal by land application are not authorized under this general permit. These wastewater discharges must be authorized under an alternative TCEQ water quality permit or otherwise disposed of in an authorized manner. Discharges of concrete truck washout at construction sites may be authorized if conducted in accordance with the requirements of Part VI of this general permit.

4. Concrete Truck Wash Out Requirements

This general permit authorizes the wash out of concrete trucks at construction sites regulated under this section of the general permit, provided the following requirements are

met. Authorization is limited to the land disposal of wash out water from concrete trucks. Any other direct discharge of concrete production waste water must be authorized under a separate TCEQ general permit or individual permit.

- (a) Direct discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.
- (b) Concrete truck wash out water shall be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent direct discharge to surface waters. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.
- (c) Wash out of concrete trucks during rainfall events shall be minimized. The direct discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck washout as the result of rain.
- (d) The discharge of wash out water shall not cause or contribute to groundwater contamination.
- (e) If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated map.

Section F. Effective Date of Coverage

Construction activities may not commence under this section until the MS4 NOI and SWMP are approved in writing by the TCEQ. Following approval of the NOI and SWMP, operators of construction activities eligible for coverage under this general permit are authorized to discharge stormwater associated with construction activity immediately upon posting the signed construction site notice required under this section.

Section G. Deadlines for SWP3 Preparation and Compliance

The SWP3 must:

- 1. Be completed and initially implemented prior to commencing construction activities that result in soil disturbance;
- 2. Be updated as necessary to reflect the changing conditions of new contractors, new areas of responsibility, and changes in best management practices; and
- 3. Provide for compliance with the terms and conditions of this general permit.

Section H. Plan Review and Making Plans Available

The SWP3 must be retained on-site at the construction site or made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; and to local government officials.

Section I. Keeping Plans Current

The permittee shall amend the SWP3 whenever either of the following occurs:

- 1. There is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the SWP3; or
- 2. Results of inspections or investigations by site operators, authorized TCEQ personnel, or a federal, state or local agency approving sediment and erosion plans indicate the SWP3 is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under this general permit.

Section J. Contents of SWP3

The SWP3 must include, at a minimum, the information described in this section.

1. Site Description

A site description, or project description, which must include:

- (a) A description of the nature of the construction activity, potential pollutants and sources;
- (b) A description of the intended schedule or sequence of major activities that will disturb soils for major portions of the site;
- (c) The number of acres of the entire construction site property and the total number of acres of the site where construction activities will occur, including off-site material storage areas, overburden and stockpiles of dirt, and borrow areas;
- (d) Data describing the soil type or the quality of any discharge from the site;
- (e) A map showing the general location of the site (e.g. a portion of a city or county map);
- (f) A detailed site map indicating the following:
 - (1) Drainage patterns and approximate slopes anticipated after major grading activities;
 - (2) Areas where soil disturbance will occur;
 - (3) Locations of all major structural controls either planned or in place;
 - (4) Locations where temporary or permanent stabilization practices are expected to be used;
 - (5) Locations of construction support activities, including off-site activities that are authorized under the permittee's NOI, including material, waste, borrow, fill, or equipment storage areas;
 - (6) Surface waters (including wetlands) either at, adjacent, or in close proximity to the site;
 - (7) Locations where stormwater discharges from the site directly to a surface water body or a MS4; and
 - (8) Vehicle wash areas.
- (g) The location and description of asphalt plants and concrete plants (if any) providing support to the construction site and that are also authorized under this general permit;
- (h) The name of receiving waters at or near the site that will be disturbed or that will receive discharges from disturbed areas of the project; and
- (i) A copy of Part VI of this TPDES general permit.

2. Structural and non-structural controls

The SWP3 must describe the structural and the non-structural controls (BMPs) that will be used to minimize pollution in runoff. The description must identify the general timing or sequence for implementation and the party responsible for implementation. At a minimum, the description must include the following components:

Erosion and Sediment Controls

- (a) Erosion and sediment controls must be designed to retain sediment on-site to the maximum extent practicable with consideration for local topography and rainfall.
- (b) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications. If periodic inspections or other information indicates a control has been used incorrectly, or that the control is performing inadequately, the operator must replace or modify the control.
- (c) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50 percent.
- (d) If sediment escapes the site, accumulations must be removed at a frequency to minimize further negative effects. and, whenever feasible, prior to the next rain event.
- (e) Controls must be developed to limit offsite transport of litter, construction debris, and construction materials by stormwater runoff.

3. Stabilization Practices

The SWP3 must include a description of interim and permanent stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans must ensure that existing vegetation is preserved where possible.

- (a) Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.
- (b) The following records must be maintained and either attached to or referenced in the SWP3 and made readily available upon request to the parties in Part VI.H. of this general permit:
 - (1) The dates when major grading activities occur;
 - (2) The dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (3) The dates when stabilization measures are initiated.
- (c) Stabilization measures must be initiated immediately in portions of the site where construction activities have temporarily or permanently ceased, and will not resume for a period exceeding 14 calendar days, except as provided in (1) and (2) below.
 - (1) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.
 - (2) Where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practicable. These

conditions exist in arid areas, semiarid areas, and areas experiencing drought conditions.

4. Structural Control Practices

The SWP3 must include a description of any structural control practices used to divert flows away from exposed soils, to limit the contact of runoff with disturbed areas, or to lessen the off-site transport of eroded soils.

- (a) Sites with a drainage area of ten (10) or more acres:
 - (1) A sediment basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin may be temporary or permanent, but must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from off-site areas and flow from on-site areas that are either undisturbed or have already undergone final stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin. Capacity calculations must be included in the SWP3.
 - (2) Where rainfall data is not available or a calculation cannot be performed the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until the site reaches final stabilization.
 - (3) If a sedimentation basin is not feasible, then the permittee shall provide equivalent control measures until the site reaches final stabilization. In determining whether installing a sediment basin is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation pattern, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins.
 - (4) Perimeter Controls At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.
- (b) Controls for sites with drainage areas less than ten acres:
 - (1) Sediment traps and sediment basins may be used to control solids in stormwater runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.
 - (2) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.

5. Permanent Stormwater Controls

A description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed must be included in the SWP3. Permittees are only responsible for the installation and maintenance of stormwater management measures prior to final stabilization of the site.

6. Other Controls

- (a) Off-site vehicle tracking of sediments and the generation of dust must be minimized.
- (b) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to reduce pollutants from these materials.
- (c) The SWP3 must include a description of pollutant sources from areas other than construction (including stormwater discharges from dedicated asphalt plants and dedicated concrete plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

7. Effluent Limits

The federal Effluent Limitations Guidelines at 40 CFR § 450.21 apply to all regulated construction activities under this 7th optional MCM, where the small MS4 is the operator.

8. Approved State and Local Plans

- (a) The permittee shall ensure the SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by federal, state, or local officials.
- (b) SWP3s must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or stormwater management site plans or site permits approved by state or local official for whom the permittee receives written notice.

9. Maintenance

All erosion and sediment control measures and other protective measures identified in the SWP3 must be maintained in effective operating condition. If through inspections the permittee determines that BMPs are not operating effectively, maintenance must be performed before the next anticipated storm event or as necessary to maintain the continued effectiveness of stormwater controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable.

10. Inspections of Controls

(a) Personnel provided by the permittee must inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site. Sediment and erosion

control measures identified in the SWP3 must be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid or semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater

As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection.

The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).

(b) Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may provide inspection personnel with limited access to the areas described in Part VI.J.10(a) above. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls must be inspected at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches, but representative inspections may be performed. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described in Part VI.J.10.(a) above. The conditions of the condition of controls along that reach extending from the end of the 0.25 mile portion to either the end of the next 0.25 mile inspected portion, or to the end of the project, whichever occurs first.

As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection. The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).

- (c) In the event of flooding or other uncontrollable situations that prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- (d) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.
- (e) A report summarizing the scope of the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWP3 must be made and retained as part of the SWP3. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

Actions taken as a result of inspections must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

(f) The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.

11. Pollution Prevention Measures

The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-stormwater components of the discharge.

Section K. Additional Retention of Records

The permittee shall retain the following records for a minimum period of three (3) years from the date that final stabilization has been achieved on all portions of the site. Records include:

- 1. A copy of the SWP3; and
- 2. All reports and actions required by this section, including copies of the construction site notices.