



In accordance with

*TPDES General Permit TXR040000 Issued January 24, 2019*

**Stormwater Management Program (SWMP)**

City of Coppell, Texas TXR040375

and

Northwest Dallas County Flood Control District (NWDCFCD) TXR040053

Dated: January 2023

*Replaces SWMP dated July 2019*

# Table of Contents

EXECUTIVE SUMMARY .....	1
1.0 PROGRAM DEVELOPMENT .....	2
1.1 Background and Introduction .....	2
1.2 Legal Authority .....	4
1.3 BMP Selection .....	5
1.4 Selection of Benchmark and Targeted Controls .....	7
1.5 Evaluation and Reporting Requirements .....	9
2.0 MINIMUM CONTROL MEASURES .....	
2.1 MCM 1: Public Education, Outreach, and Involvement.....	
2.1.1 Permit Requirement .....	10
2.1.2 Public Education, Outreach, and Involvement Programs and BMPs .....	12
2.1.3 Measurable Goals & Best Management Practices .....	13
2.2 MCM 2 Illicit Discharge Detection and Elimination.....	
2.2.1 Regulatory Requirement .....	15
2.2.2 Illicit Discharge Detection and Elimination Programs and BMPs.....	17
2.2.3 Measurable Goals & Best Management Practices .....	20
2.3 MCM 3 Construction Site Stormwater Runoff Controls.....	21
2.3.1 Regulatory Requirement .....	22
2.3.2 Construction Site Stormwater Controls Programs and BMPs .....	24
2.3.3 Measurable Goals & Best Management Practices .....	
2.4 MCM 4 Post Construction Stormwater Management for New Development/Redevelopment .....	
2.4.1 Regulatory Requirement .....	25
2.4.2 Post Construction New Development & Redevelopment.....	26
2.4.3 Measurable Goals & Best Management Practices .....	28
2.5 MCM 5 Pollution Prevention/Good Housekeeping for Municipal Operations .....	
2.5.1 Regulatory Requirement .....	29
2.5.2 Municipal Operations and Facilities Covered Under the SWMP.....	32
2.5.3 Measurable Goals & Best Management Practices .....	33
Appendix A Area of Involvement Map	
Appendix B Storm Sewer Map	
Appendix C Interlocal Agreement	
Appendix D Resolution to Adopt the SWMP	
Appendix E TPDES General Permit	

## EXECUTIVE SUMMARY

The City of Coppell has developed a Stormwater Management Program (SWMP) as required for coverage under the Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 (see Appendix E). The original permit was issued on August 13, 2007, and a subsequent permit was issued on December 13, 2013. A new permit was issued on January 24, 2019, and this new permit supersedes and replaces the previous permit. The SWMP includes a listing of Best Management Practices (BMPs) that will be implemented by the City to work towards the regulatory standard of reducing pollutants in the City's stormwater to the "maximum extent practicable" (MEP). Existing City of Coppell stormwater programs and activities designed to protect the City's water quality will be supplemented with new BMP activities as needed. Measurable goals and an implementation schedule were developed for each of the BMPs in the SWMP. BMPs, measurable goals, and the implementation schedule were selected based upon their ability to meet specific permit requirements and to reduce pollutants in the City's stormwater to the maximum extent practicable. They were also selected based upon a general assessment of BMP effectiveness, applicability to the City of Coppell, and costs associated with implementation of the BMPs. Effectiveness of the selected BMPs and success in achieving the selected measurable goals will continue to be reviewed annually. This SWMP, dated July 2019, revises the provisions of the former Stormwater Management Program, dated May 2014. Revisions were made to meet new permit requirements, and changes were made based on the implementation process of BMPs during the previous permit term.

## 1.0 PROGRAM DEVELOPMENT

### 1.1 BACKGROUND AND INTRODUCTION

The City of Coppel was incorporated in 1955. It covers 14.7 square miles and is located at Latitude 32° 58' 10" and Longitude 96° 59' 35". The topography is relatively flat with ground elevations ranging from approximately 420 feet above mean sea level to 550 feet above mean sea level. As seen in the Area of Involvement Map located in Appendix A, the City contains three major tributaries that ultimately drain into the Elm Fork of the Trinity River along the eastern City limits. Approximately 5.4 square miles of the City is drained by Grapevine Creek, and approximately 7.9 square miles of the City is drained by Denton Creek, including 2.8 square miles drained by Cottonwood Branch, a major tributary of Denton Creek. The remaining 1.7 square miles drain directly into the Elm Fork of the Trinity River.

The Northwest Dallas County Flood Control District (NDCFCD), the Denton County Levee Improvement District No. 1, and the Irving Flood Control District are all located within the City limits. The Northwest Dallas County Flood Control District contains approximately 610 acres and is located fully within the City limits of Coppel as shown on the map in Appendix A. The Denton County Levee Improvement District No. 1 contains approximately 940 acres, with roughly 60 acres located in the City of Coppel. These Districts were created to provide flood protection to the area to allow for development of property within the District and to guide the necessary maintenance in the floodplain.

According to the 2010 U.S. Census Bureau urbanized area map, all of the City is within the designated Denton-Lewisville Urbanized Area. The City is required to submit a Stormwater Management Program (SWMP) in accordance with Section 402 of the Clean Water Act and Chapter 26 of the Texas Water Code. The Northwest Dallas County Flood Control District (NDCFCD) boundaries are located fully within the Coppel city limits. The NDCFCD is also required to submit a SWMP that covers the floodplain and drainage areas under its control. The SWMP encompasses all areas of the City and the NDCFCD.

On August 13<sup>th</sup>, 2007, the Texas Commission on Environmental Quality (TCEQ) issued TPDES General Permit No. TXR040000 under the Texas Pollutant Discharge Elimination System (TPDES). A subsequent permit was issued on December 13, 2013. A new permit was issued on January 24, 2019 (See Appendix E), and this new permit supersedes and replaces the previous permit. The permit authorizes Small Municipal Separate Storm Sewer Systems (MS4s) and MS4s located in an urbanized area, to discharge stormwater and certain non-stormwater discharges from their storm sewer system. The new permit divides MS4 operators into four levels based on population served within the 2010 urbanized area. The City of Coppel is designated as a Level 2 Small MS4 located in an urbanized area. As such, the City and the NDCFCD each have the option of applying for coverage under the TCEQ's General Permit or applying for an individual permit. In order to obtain coverage under the General Permit, the City and the NDCFCD must submit an application that consists of a Notice of Intent (NOI) and a SWMP. The City and District must submit individual NOIs but have the option of partnering in development, implementation and submittal of a joint SWMP. The City and the NDCFCD have agreed to joint development of the SWMP.

A copy of the Interlocal Agreement between the City of Coppell and the NDCFCD outlining the shared and individual responsibilities of the implementation of this plan is located in Appendix C.

This document outlines the City of Coppell and the NDCFCD's program to develop, implement, and enforce the SWMP. The program is designed to prevent pollution in stormwater to the maximum extent practicable and effectively prohibit illicit discharges to the system. The effective SWMP addresses the five Minimum Control Measures (MCMs) as required by the TCEQ Phase II program. The City researched existing ordinances, guidance manuals, materials, best management practices (BMPs), and current programs, and participated in the North Central Texas Council of Governments (NCTCOG) stormwater workshops during 2001 and 2002 prior to selecting the BMPs for the initial program. The City evaluated the BMPs selected for the initial SWMP to determine the most applicable, effective, and cost-effective BMPs for the revised SWMP in 2013 and again in 2019. The City has adapted or replaced BMPs that have been problematic or ineffective in the past, as indicated in the annual reports submitted to the TCEQ. Additional BMPs, called Targeted Controls, have been added to address the concern of bacteria impairment of the Trinity River watershed. The BMPs have been re-categorized and renumbered since the initial SWMP to match the new minimum control measures (MCMs) as specified by the TCEQ in the TPDES General Permit. The BMPs and measurable goals were selected based on the City's ability to effectively implement them in a way that is consistent with the City's needs, resources, and circumstances.

## 1.2 LEGAL AUTHORITY

The Coppell City Council adopted the initial SWMP through a resolution on January 22, 2008. A subsequent SWMP was adopted by the Coppell City Council through a resolution on May 27, 2014. The Coppell City Council adopted this current SWMP through a resolution on July 9, 2019. A copy of the resolution is located in Appendix D.

The City of Coppell manages runoff issues through an ordinance to authorize a stormwater management program. The City, through adoption of Ordinance 2004-1070 has established a municipal drainage system and a schedule of charges for all real property. Fees collected from the utility charges are used to pay for, and fully implement this SWMP. The City, through adoption Article 15, Chapter 15-15 of Ordinance 2012-1312 has regulated discharges into the Municipal Separate Storm Sewer System (MS4) and surface water within the City of Coppell, Texas. Entitled "Stormwater Quality Management and Illicit Discharge Code", Article 15-15 is in compliance with TCEQ Rules and Regulations for MS4s and will be enforced as such.

## 1.3 BMP SELECTION

The TPDES General Permit issued by the TCEQ on January 24<sup>th</sup> of 2019 lists five (5) required Minimum Control Measures (MCMs) to be implemented by the owner and operator of a Level 2 Small MS4.

The program outlines the Minimum Control Measures to prevent stormwater pollution as required by the TPDES General Permit. The program details the existing Best Management Practices (BMPs) currently implemented by the City of Coppel and details the future enhancement of the existing BMPs and the resulting measurable goals that can be achieved, which will lead to reductions in pollutants discharged to the storm sewer system.

Section 2.0 addresses the following Permit Requirements for the SWMP pertaining to each MCM:

- The existing BMPs currently implemented by the City of Coppel.
- Details of existing BMPs and/or the addition of one or more BMPs, denoted by a plus sign (+).
- Identifies the Targeted Controls (bacteria-focused BMPs) that aim to reduce bacteria loading in surface waters, denoted by an asterisk (\*).
- Measurable goals for each BMP.
- The responsible City Department and/or personnel responsible for implementation.
- A schedule for the implementation of the BMPs of the 5-year term of the permit.
  - Unless otherwise specified, the implementation schedule is to be completed by December 31<sup>st</sup> of each permit year.
- Summary of information to be included in the SWMP Annual Report.

Key City of Coppel ordinances and guidance that may be affected by the Stormwater Management Program are:

- Subdivision Ordinance (Ordinance No. 2015-1421)
- Erosion and Sedimentation Control Code Ordinance (Ordinance No. 91514)
- Comprehensive Land Use Plan Ordinance (Ordinance No. 91500)
- Storm Drainage Design Criteria (Referred to in Ordinance No. 2015-1421)
- Standard Construction Details Code (Ordinance No. 94646)
- Floodplain Management Ordinance (Ordinance No. 2001-952)
- Stormwater Quality Management and Illicit Discharge Code (Ordinance No. 2012-1312)

The above referenced ordinances and guidance may need revising to address elements of the new Stormwater Management Program.

## 1.4 SELECTION OF BENCHMARK AND TARGETED CONTROLS

In 2006, the Texas Commission on Environmental Quality (TCEQ) first identified that a total maximum daily load (TMDL) was necessary for Cottonwood Branch within the City of Irving and Grapevine Creek within the City of Coppel, where concentrations of indicator bacteria exceeded the criteria used to evaluate attainment of the contact recreation use. The impairments were included in the 2006 version of the Texas Water Quality Inventory and 303(d) List. The impairments were included in the 2014 Texas Integrated Report of Surface Water Quality according to the requirements of the federal Clean Water Act Sections 305(b) and 303(d). The 2014 lists of impaired waters were adopted by the Commission on June 3, 2015 and approved by the EPA on November 19, 2015. Grapevine Creek (Segment 0822B) is an urban creek, running through the City of Coppel, and is a tributary to the Elm Fork Trinity River south of Lake Lewisville. The Implementation Plan for Twenty-One Total Maximum Daily Loads for Bacteria in the Greater Trinity River Region (commonly known as the Implementation Plan or I-Plan), approved by the TCEQ on December 11, 2013, describes the steps watershed stakeholders and the TCEQ will take toward achieving pollutant reductions in these surface waters. Some BMPs incorporate the Implementation Strategies described in the I-Plan.

The City of Coppel is located within the watershed for Grapevine Creek (Segment 0822B\_01), which is an impaired water body with a Total Maximum Daily Load (TMDL) associated with it for bacteria. Because of this, the City must meet requirements in Part II.D.4 of the general permit for "Impaired Water Bodies and Total Maximum Daily Load (TMDL) Requirements". A benchmark must be determined along with targeted controls to address implementation towards reducing bacteria levels.

"Implementation Plan for Twenty-One Total Maximum Daily Loads for Bacteria in the Greater Trinity River Region" was developed to address steps toward reducing bacteria levels within the Trinity River Region. The original implementation plan (I-Plan) was approved by the TCEQ on December 11, 2013, and addresses implementation strategies for reducing bacteria levels in the watershed. The I-Plan was revised by the TMDL Coordination Committee, stakeholders within the TMDL, on June 15, 2017. The TMDL Coordination Committee periodically assess the I-Plan for efficiency and effectiveness of the implementation strategies.

The City of Coppel is located in Assessment Unit 0822B\_01. The location of the City of Coppel and the known bacterial threats posed to Grapevine Creek were taken into account for the determination of BMPs included in this SWMP.

The TCEQ determines whether water quality in a water body meets the primary contact recreation use by measuring the levels of indicator bacteria. E. coli are the preferred indicator bacteria for assessment for recreational use in fresh water and were used for analysis to support total maximum daily load (TMDL) development on water bodies in the Greater Trinity River region.

In accordance with the general permit requirements, a benchmark must be determined. Benchmarks are designed to assist in determining if the BMPs established are effective in addressing the pollutant of concern in stormwater discharges from the MS4 to the maximum extent practicable. The benchmark is intended to be a guideline for evaluating progress towards reducing pollutant discharges.



The City has elected to use the Waste Load Allocations (WLA) identified in the I-Plan as shown in Table 1 to determine a benchmark. All loads are expressed as billion MPN/day, where MPN represents the most probable number.

Table 1. TMDL Allocations for the Impaired Assessment Unit within Coppell, Texas

Assessment Unit	Segment Name	TMDL	WLA <sub>WWTF</sub> <sup>a</sup>	WLA <sub>SW</sub> <sup>b</sup>	LA <sub>USL</sub> <sup>c</sup>	MOS <sup>d</sup>	FG <sup>e</sup>
0822B_01	Grapevine Creek	196.22	0.00	157.60	28.34	9.81	0.46

<sup>a</sup>WLA<sub>WWTF</sub> = waste load allocation for wastewater treatment facilities

<sup>b</sup>WLA<sub>SW</sub> = waste load allocation for permitted stormwater

<sup>c</sup>LA<sub>USL</sub> = upstream load application entering the assessment unit

<sup>d</sup>MOS = Margin of safety load

<sup>e</sup>FG = future growth loads

The waste load allocation for permitted stormwater (WLA<sub>SW</sub>) will serve as the benchmark for each stream. The benchmark for Grapevine Creek is 157.60 MPN/day.

The City must also identify an assessment plan to monitor progress as well as Targeted Controls as a part of the SWMP. Targeted controls are BMPs with measurable goals focused specifically on bacteria as the pollutant of concern.

## 1.5 EVALUATION AND REPORTING REQUIREMENTS

The selected measurable goals for each BMP will be evaluated on an annual basis and documented in the annual report. The City has elected to use the calendar year for the annual reporting year. The City of Coppell, in association with the NDCFCO, will submit a concise annual report for each year. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the BMPs and progress towards achieving the measurable goals for each of the minimum control measures.

Progress toward the selected TMDL benchmark will also be evaluated on an annual basis. A qualitative approach will be used by the City to evaluate program implementation measures on an annual basis. The City will assess progress by using program implementation indicators that could include evaluations such as:

- Number of sources identified or eliminated
- Decrease in number of illegal dumping
- Increase in illegal dumping reporting
- Number of educational opportunities conducted
- Reductions in sanitary sewer overflows (SSOs)
- Increase in illegal discharge detection through dry screening

If no progress towards the benchmark either from program implementation or water quality assessments is observed by the end of the third year from the effective date of the permit, the City will need to identify alternative focused BMPs to address new or increased efforts towards the benchmark. If appropriate, the City will develop a new approach to identify the most significant sources of bacteria and will develop alternative focused BMPs for those.

The City will annually review and update as necessary, the SWMP and MCM implementation procedures required by Part III.A.2 of the general permit. Any changes will be included in the annual report. The City will also annually check, 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 City will comply with the requirements of Part II.D.4.(b) (with the exception of (b)(1)c) of the general permit, and will 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).

## 2.0 MINIMUM CONTROL MEASURES

### 2.1 MCM 1 PUBLIC EDUCATION, OUTREACH, AND INVOLVEMENT

#### 2.1.1 Permit Requirement

Specific Requirements as stated in the General Permit for Level 2 Small MS4s:

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 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.

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.

## 2.1.2 Public Education, Outreach, and Involvement Programs and BMPs

The goals and objectives of this MCM are to educate the residents of the City of Coppell through educational and outreach programs and explain how residents can be involved in the efforts of this stormwater management program. The City is currently providing public education, outreach, and involvement programs associated with stormwater issues to residents in the following ways:

The public was invited to participate in the development of the initial SWMP. An article detailing the SWMP was posted on the City of Coppell webpage in November 2002. The article informed readers about the upcoming regulations and the original six minimum and one optional control measures. The SWMP was presented to the City Council during the work session on January 8, 2008. The finalized SWMP was presented to the City Council on January 22, 2008 and adopted by the City. Both meetings were open to the public and provided an opportunity to discuss various viewpoints and provide input concerning appropriate stormwater management policies and BMPs. The SWMP was revised in May 2014 to meet new requirements for the permit issued on December 13, 2013. The revised SWMP was approved by the City Council on May 27, 2014. The new finalized SWMP was presented to the City Council on July 9, 2019 and adopted by the City.

The City implements BMPs that target homeowners, community businesses, and the general public. The ultimate goal of educational BMPs is to raise citizen awareness of common daily activities, such as illegal dumping and yard care, which can adversely impact water quality and to prevent those seemingly harmless activities from becoming causes of water pollution. To comply with the requirements of the TPDES General Permit, each BMP will have associated Measurable Goals. Each BMP will have oversight of the appropriate City Staff and the measurable goals will be documented and included in the SWMP Annual Report.

### 2.1.3 MCM 1: Public Education, Outreach, and Involvement

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 1.1* Public Educational & Outreach	Provide content for city publications and distribution of media (brochures, flyers, bookmarks, pet waste bag holders) for the purpose of educating residents, visitors, public service employees, businesses, commercial and industrial facilities and construction site personnel on stormwater quality issues.	Public Works	2022 2023	<ul style="list-style-type: none"> <li>□ Distribute at least <b>two topics</b> of educational materials specific to reduction of bacteria in city publications (e-newsletter, water utility bill, or direct mail)</li> <li>□ Attend a minimum of <b>two city events</b> per year to share bacteria educational materials and information such as pet waste bags holders and/or the regional Doo The Right Thing campaign.</li> </ul>
BMP 1.2 Biodiversity Education Center Programs & Community Garden Classes	The Parks Department operates the Biodiversity Education Center (BEC). Classes & events are held for children and adults throughout the year. The BEC has both an indoor learning area and outdoor natural learning areas including a prairie, woods, and spring fed creek.	Parks Department	2022 2023	<ul style="list-style-type: none"> <li>□ Provide at least <b>two classes or events</b> annually that provide information related to water quality best management practices in Coppell. Topics for classes can change or repeat each year and can include information that is age appropriate about the water cycle, recycling, native plants, local ecosystems, and riparian habitat.</li> </ul>
BMP 1.3 Coppell Community Gardens education programs.	The Parks Department and Keep Coppell Beautiful support the Community Organic Recycling Education (CORE) program. CORE sponsors programs on compost bins and compost education, lawn and garden education, and proper organic recycling methods. The city provides space for three community gardens that have approximately 1,000 visitors per year. The community garden has individual raised beds, a Texas Smartscape demonstration garden, and composting areas.	Parks Department	2022 2023	<p>City of Coppell provides location for at least <b>one</b> Texas Smartscape demonstration garden.</p> <p>CORE sponsors <b>one</b> compost bin program. Residents receive discount on sale of compost bins.</p> <p>CORE hosts at least <b>two programs or classes</b> a year for residents to learn about composting, organic gardening, or proper pesticide management methods.</p>
BMP 1.4 Approved SWMP and Annual Reports	The City of Coppell has a website and will post the SWMP and Annual Reports per the requirements in the TPDES General Permit for small MS4s <a href="https://www.coppelltx.gov/456/Stormwater-Management">https://www.coppelltx.gov/456/Stormwater-Management</a>	Public Works Operations	2022 2023	<ul style="list-style-type: none"> <li>□ Post one approved SWMP &amp; <b>100%</b> of approved annual reports on the City of Coppell website.</li> </ul>
*BMP 1.5 Removal and Proper Disposal of Animal Feces	The Parks and Recreation Department installs and maintains doggie depts to encourage the proper disposal of pet waste.	Parks and Recreation Department	2022 2023	<ul style="list-style-type: none"> <li>□ Maintain <b>100%</b> of existing Pet Depot Waste Stations in parks</li> </ul> <p>Check and as needed restock doggie depts a minimum of <b>one time per month.</b></p>

### 2.1.3 MCM 1: Public Education, Outreach, and Involvement (continued)

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 1.6 Participation in the NCTCOG Regional Storm Water Program	Coppell participates in the NCTCOG Regional Stormwater Program and pays annual cost share to participate in the program.	Public Works	2022 2023	Budget for and <b>pay 100%</b> of the City's annual cost share for NCTCOG Regional Stormwater Program.
BMP 1.7 Storm Drain Curb Markers	Install and/or replace 50 curb inlet markers. Priority areas for installation include all inlets located on public streets adjacent to or within closest proximity to waterways.	Public Works	2022 2023	<input type="checkbox"/> Install <b>50 inlet markers</b> per year Document number and location of storm drain markers placed throughout the city. <input type="checkbox"/> Document <b>100% of inlets</b> with storm drain markers.
BMP 1.8 Municipal Website Stormwater Information	The City uses the municipal website to inform the public about the Stormwater Management Program. The website address is: <a href="http://stormwatermanagement.coppelltx.gov">Stormwater Management   Coppell, TX (coppelltx.gov)</a> . The website includes general stormwater quality information, as well as topics of interest to the general public, such as proper management of pesticides and fertilizers, prevention of littering, and public reporting of illicit discharges and dumping. The topics may be repeated periodically throughout the 5-year permit period.	Public Works Operations Project Coordinator	2022 2023	<input type="checkbox"/> Review and as needed update the stormwater quality website at least <b>one time annually</b> to include best management practices information in Coppell and DFW region.
BMP 1.9 Public Notification Process of SWMP	In accordance with the State law the City of Coppell will make the draft SWMP available for review and public comment.	City Secretary Communications Public Works	2022 2023	<input type="checkbox"/> Provide <b>one</b> opportunity for public to provide feedback on the SWMP during the public comment period.

## 2.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION

### 2.2.1 Regulatory Requirement

Specific Requirements as stated in the General Permit for Level 2 Small MS4s:

#### (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 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.

### 2.2.2 Illicit Discharge Detection and Elimination Programs and BMPs

Enforcement: Coppell relies on the following ordinances as legal authority to prevent spills, dumping, or disposal of materials on the roadways and on public and private property, which includes the storm sewer and drainage systems:

- 1. It shall be unlawful for any person to deposit garbage, trash, rubbish, discarded building materials, waste from building sites, stagnant water or dead animals upon or along any drain, gutter, alley, sidewalk, street, or vacant lot, or upon any public or private premises within the corporate limits of the city. It is unlawful for any person owning or being in charge of property within the city to allow such property to be used as a landfill without express authority from the city council and the issuance of a permit by the City. This provision does not, however, apply to the use of fill composed of dirt, sand and gravel (Ord. No. 92559: Anti-Litter Regulations).

2. It shall be unlawful for any person while driving or a passenger in a vehicle to throw or deposit inorganic trash, garbage or rubbish of any kind upon any street, street right-of-way, or other public place within the city or upon private property. Any person who drops or permits to be dropped or thrown upon any street any trash, rubbish or injurious metal material shall immediately remove the same or cause it to be removed (Ord. No. 92559: Anti-Litter Regulations). It shall be unlawful for any person to drive or move any truck or other vehicle within the city, unless such vehicle, is so constructed or loaded so as to prevent any load contents, including trash, rubbish or garbage from being blown or deposited upon any street, street right-of-way, alley, or any other public or private property within the city. (Ord. No. 92559: Anti-Litter Regulations)
3. It shall be considered a public nuisance and shall be unlawful to permit or allow an animal to defecate upon private or public property other than the property of the owner of said animal; and to fail to remove and dispose of in a sanitary manner any feces left by such animal (Ord. No. 95687: Animal Services).
4. Unless authorized by the Texas Commission on Environmental Quality (TCEQ), no person shall deposit or discharge any waste on public or private property into or adjacent to any natural outlet, watercourse, storm sewer, or any other area within the jurisdiction of the City of Coppell (Ord. No. 95698: Industrial Waste and Sewer Use Regulations).
5. The City of Coppell will establish a schedule of drainage charges against all real property in the city subject to charges under Sections 402.041, et seq. of Subchapter C of Chapter 402 of the TEXAS LOCAL GOVERNMENT CODE. The City will provide drainage for all real property within the city on payment of drainage charges, except such real property which may be exempted therefrom as authorized by law. The City will offer such drainage service on nondiscriminatory, reasonable and equitable terms (Ord. No. 2004-1070: Municipal Drainage Utility Systems).
6. The City of Coppell shall comply with, enforce, and adopt all applicable Federal regulations pertaining to stormwater discharges from regulated small MS4's. The ordinance is in compliance with all applicable Federal laws including the Clean Water act and the National Pollutant Discharge Elimination System (NPDES) regulations, and all Texas Pollutant Discharge Elimination System (TPDES) permits and requirements which control discharges of pollutants to surface waters (Ord. No. 2012-1312: Stormwater Quality Management and Illicit Discharge Code).

The Public Works Department, Environmental Health Division, Building Inspections Department, and the Police Department enforce the above mentioned laws and ordinances that protect the stormwater drainage systems from spills and illegal dumping.

Detection and Elimination: The City currently uses the preventive practices of thorough inspection and verification during the entire construction phase to try and avoid the need for more extensive detection of illicit connections. The Environmental Health Division and/or the Building Inspections Department respond to reports of illicit connections at the time they are reported.

Allowable Non-Stormwater Discharges: The City of Coppell understands that there are allowable non-stormwater discharges that enter the storm sewer and drainage systems. At present, the City will only allow the non-stormwater discharges listed in Part II.C of the TPDES General Permit (copy located in Appendix E) to be excluded as an illicit discharge. Any other non-stormwater discharge will be considered for exclusion as an illicit discharge on a case-by-case basis.

Storm Sewer Map: The Public Works Department has mapped the existing storm sewer and roadway systems in a GIS format from as-built construction plans and City records. Approximately 120 miles of storm sewer pipe that are owned and maintained by the City of Coppell and the NDCFCO are currently mapped. The GIS map attributes include the location, length, size, age, and type of material of the pipes and the location, size and type of the inlet structures.

**2.2.3 MCM 2: Illicit Discharge Detection and Elimination**

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 2.1 Program to Detect and Eliminate Illicit Discharges	Prohibit illicit discharges of non-stormwater to the MS4 using established legal authority. Record log of detected and reported illicit discharges. Maintain records of each illicit discharge identified and the corresponding corrective actions taken to eliminate the illicit discharge. Enforce the regulations as appropriate to regulate storm water discharges. Annually report on the number of illicit discharges that are identified, eliminated, and the associated enforcement actions issued.	Public Works  Community Services-Environmental Division	December 2023	Develop <b>one</b> written IDDE standard operating procedure for guidance when responding to illicit discharges.  Develop one updated spill response SOP for effectiveness. Address <b>100%</b> of review comments and provide one updated spill response SOP to City staff, Fire Department & Police Department.
BMP 2.2 Storm Sewer System Map	Maintain an updated map of the MS4 indicating the location of a storm water discharge outfalls that are operated by the City, discharge into waters of the U.S., and identify the location and name of all surface waters receiving discharges from the small MS4 outfalls. Information for the updating the MS4 map will be taken from as built construction plans.	Public Works GIS	2022 2023	☐ Add <b>100%</b> of known outfalls and MS4 drainage structures to the map at least 1 time annually. Maintain 1 copy of MS4 map in Public Works Department. Updated MS4 map may be in either digital or hard copy format.
*BMP 2.3 Illicit Discharge Employee Training	Educate city field personnel on the identification of illicit discharges and procedures for reporting observations.	Public Works	2022 2023	☐ Conduct at least <b>one</b> training by providing IDDE videos or other printed material for field staff to assist with identification of illicit discharges and procedures for reporting observations to responsible city staff for 100% of field staff.
*BMP 2.4 Hotline for Public Reporting of Illicit Discharges	The City utilizes a reporting hotline for the public to report illicit discharges. The phone number is posted on the city website and includes The City will record keeping of complaints and corrective actions to be taken.	Public Works	2022 2023	☐ Ensure the community hotline and public education material is publicly accessible at least <b>95%</b> of the time. Document <b>100%</b> of calls and complaints annually. Document <b>100%</b> of corrective actions taken annually.
*BMP 2.5 Sanitary Sewer System Overflow Response & Elimination	Identify, properly report, and if needed reduce the occurrences of sanitary sewer system overflows. Update sanitary sewer system map based on civil engineering plans and/or as-built drawings.	Public Works	2022 2023	☐ Investigate <b>100%</b> of reported Sanitary Sewer Overflows. Map <b>100%</b> of new sanitary sewer system in regulated MS4.

## 2.3 MCM 3 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

### 2.3.1 Regulatory Requirement

Specific Requirements as stated in the General Permit for Level 2 Small MS4s:

#### (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 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.

### 2.3.2 Construction Site Stormwater Runoff Control Programs and BMPs

Coppell enforces the following ordinances to reduce pollutants in any stormwater runoff to the storm sewer system from construction activities:

1. The City of Coppell has adopted Ordinance No. 91514, an Erosion and Sedimentation Control Code to reduce erosion and sedimentation from private property onto public places and public right-of-way. The code applies to any person, firm, corporation or business proposing to develop land or improve property within the City. It requires the developers to submit a plan that contains structural and operational BMPs and all other measures to reduce sedimentation in streams, waterways, storm drains, etc., protect the quality of water in Coppell, and provide for restoration of sites to reduce the negative environmental impacts of construction. The plan 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. In addition, the plan must be submitted to the City Engineer for approval prior to the commencement of construction and must be included in the engineering construction plans. Stormwater controls are included in City inspections and noncompliance can be a cause for the City to issue a stop work order until the situation is remedied. The developer must provide a surety to the City to ensure that vegetative cover and other permanent erosion control measures are installed, maintained, and functioning properly for up to a two year period from the date of final acceptance. Any person found guilty of violating any of the provisions of the Code are subject to fines.

2. Ordinance No. 92559, Anti-Litter Regulations, declares it unlawful for the owner of the property, the developer of the property, the contractor and the franchise utility to allow litter, spillage, or tracking of dirt or other construction related material to occur through the transportation of construction/related trucks to and from construction sites anywhere within the city limits of City of Coppell. If a litter-free construction area has not been maintained, and a warning by the proper City official has been given, the violator shall have until 5:00 p.m. the day of the warning to address the problem. If no action is forthcoming, a citation shall be issued. Each construction site shall contain a trash bin that will contain a minimum of 216 cubic feet of trash.
  
3. Ordinance No. 91500-A-203 contains The Tree Preservation Requirements of the Zoning Ordinance provided for greater tree preservation and protection. Established trees provide important erosion control along drainage ways. The ordinance establishes rules and regulations governing the protection and preservation of established trees growing within the City and regulates the removal and replanting of trees during development, construction and redevelopment. A tree removal permit is required when removal is deemed necessary. Assistance is provided to property owners, developers, and builders in understanding proper guidelines, methods, and regulations of tree preservation and protection within the city. The City Manager or his designee issues a notice of violation to persons, firms, and corporations failing to comply with provisions of the ordinance which are adjudicated through the municipal court system.

The Planning, and Parks and Recreation Departments, as part of the Development Review Committee (DRC), review all private plans for compliance with the Tree Preservation Requirements. The Public Works Department, as part of the DRC, reviews all public and private construction plans for compliance with the erosion and sedimentation and litter control ordinances. They also review the plans with regard to potential water quality impacts. This department reviews and approves the civil plans and issues development permits for new construction. A pre-construction meeting is required for all public and private projects. The engineering inspector with responsibility for construction inspection of the project conducts the meeting and outlines sediment and erosion control requirements to the developer and the contractor. The frequency of inspections is based on construction activity at the site, or in response to observations by City staff or citizen complaints.

The City of Coppell implements BMPs that promote construction site stormwater runoff control. The list of Best Management Practices, BMP Description, Person Responsible for the BMP, Implementation Schedule, and Measurable Goals are available in Table 4.



**Section 2.3.3**

**MCM 3: Construction Site Stormwater Runoff Control**

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 3.1 Erosion and Sedimentation Control Code	The City has implemented existing Erosion and Sedimentation Control Code, Ord. No. 91514, to ensure compliance with the Phase II general permit. The City will review the TPDES permit requirements for large and small construction activities and the NCTCOG Construction BMP Manual. The City will continue looking for opportunities to coordinate the ordinance with the federal/state permits and the construction manual. The City will also review any other ordinances, regulations, and specifications affecting erosion and sedimentation control. If necessary, the ordinances, regulations, and specifications will be amended to ensure compliance with the Phase II general permit.	Public Works	2022 2023	☐ Enforce <b>100%</b> of applicable regulations to regulate stormwater discharges from local construction sites.
		Public Works City Attorney	December 2023	☐ Update <b>100%</b> of inspection forms and procedures necessary to inspect local construction sites in order to ensure compliance with local construction storm water and erosion and sediment control best management practices. Review <b>100%</b> of internal procedures for tracking new and ongoing construction activities.
*BMP 3.2 Erosion & Sediment Control Plans	The City of Coppell reviews applications for proposed developments and requires erosion and sediment controls be established and maintained during construction.	Public Works	2022 2023	☐ Require Erosion and Sedimentation plans for <b>100%</b> of permits as specified in the code of ordinances.
BMP 3.3 Construction Site Inspections	Stabilizing construction sites to prevent erosion and keep sediment from entering the MS4 protects streams and keeps the City’s storm sewers functioning properly.	Public Works	2022 2023	☐ Inspect <b>100%</b> of all sites for compliance with Erosion & Sediment Control Plans.
BMP 3.4 Staff training for Construction Erosion & Sedimentation Control	The City will provide training to City staff whose primary job duties are related to implementing the construction stormwater program (including permitting, plan review, construction site inspections, and enforcement) to conduct these activities.	Public Works	2022 2023	☐ Provide at least <b>one</b> annual training for city staff responsible for implementing the construction stormwater program.
BMP 3.5 Pre-Construction Meetings	The Engineering Department requires and oversees Pre-Construction meetings attended by all General Contractors performing construction within the City of Coppell. The meetings include detailed discussion of the implementation of Stormwater Pollution Prevention Plans and Sediment and Erosion Control Plans.	Public Works	2022 2023	☐ Review Erosion and Sediment Control Plan requirements at <b>100%</b> of Pre-Construction meetings.

## 2.4 POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

### 2.4.1 Regulatory Requirement

Specific Requirements as stated in the General Permit for Level 2 Small MS4s:

#### (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.

#### 2.4.2 Post Construction Stormwater Management in New Development and Redevelopment Programs and BMPs

Coppell relies on the following ordinances as legal authority to address stormwater runoff from new development and redevelopment:

1. Ordinance 2001-952: The Floodplain Management Ordinance to provide for the comprehensive management of floodplain in the city limits. The Floodplain Administrator administers the ordinance and enforces improvements to local drainage within new developments to control increased runoff that might increase the danger of flood hazards to user or other properties adjacent to, downstream, or upstream of the development. This includes the use of detention basins to limit runoff to predevelopment levels. A Flood Plain Permit is required for all new construction, development, and encroachments within the floodplain. The permit requires that hydrologic and hydraulic analyses clearly defining existing conditions, proposed conditions and impacts of the project, including work maps and stream profiles upstream and downstream of the site for sufficient distances be provided. A narrative or plan must be provided that depicts temporary and permanent erosion controls to protect disturbed and post-development floodplain over bank or channel areas and minimize long-term flood-related erosion. Violation of the provisions of this ordinance by failure to comply with any of its requirements shall constitute a misdemeanor and be subject to a fine.
2. Ordinance 94643: The Subdivision Ordinance prescribes rules and regulations governing plats and subdivisions of land within the corporate limits. Drainage and storm sewer systems shall be designed and constructed in conformance with the provisions of the “Design Manual for Storm Drainage Facilities” published by the City of Dallas and related City of Coppell ordinances. Natural creeks may remain in open natural condition or excavated channels may be constructed provided they meet all necessary design criteria. The excavated channel must be landscaped so as to conform to the minimum standard established in the approved Streetscape Plan. Creeks or excavated channels with slopes steeper than 4:1 must be maintained by a maintenance entity other than individual lot owners. This area of the floodway may be provided to the City as a park or floodway

management area. Lakes, detention ponds and retention ponds may be constructed in all areas provided they meet all necessary design criteria and are approved by the City Engineer. The ordinance provides for community parks as a function of subdivision development in the City. Each subdivision plat must dedicate one acre for each 100 proposed dwelling units. If fewer than 100 units are proposed, the developer is required to pay cash in lieu of dedication of land. The Streetscape Plan provides for landscaping in setbacks, medians, entries, and at other special street conditions in Coppell.

3. Ordinance No. 91599-A-30, Ordinance No. 91500-A-105, and Ordinance No. 91500-A-276 under the Landscape Regulations of the Zoning Ordinance establish certain regulations pertaining to landscaping. A minimum of 10% of the area utilized for off-street parking and loading must be devoted to living landscaping, a minimum of one tree must be planted for each 400 square feet, and planting islands must be in an amount not less than 12% of the parking spaces. A landscape buffer must be provided along all property lines. A 15-foot buffer is required along public streets and a 10-foot buffer is required along an alley. One tree is required every 50 linear feet. In all non-residential zoning districts, there shall be an area devoted to feature landscaping. The size of that area must be at least 15% of that portion of the lot not covered by a building or by building features. Prior to issuance of a certificate of occupancy for any building or structure, all screening and landscaping must be in place in accordance with the landscape plan.
4. The City has adopted the Parks and Recreation Open Space Master Plan. The purpose of this master plan is to provide a guide for the orderly future development of Coppell's park and recreation system. It provides for the preservation of open space within the City.

The Planning, Engineering, and Parks and Recreation Departments and the Floodplain Administrator, as part of the DRC, review all private plans to ensure compliance with the above-mentioned ordinances and guidance documents.

### 2.4.3 MCM 4: Post-Construction Stormwater Management in New Development and Redevelopment

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
*BMP 4.1 Post Construction Legal Authority	<p>Use established legal authority to require post-construction control measures and maintenance of post-construction control measures in area of new and redevelopment.</p> <p>Review and update applicable city ordinances to address water quality impacts from new development and redevelopment projects that disturb more than one acre.</p>	Public Works	December 2023	Review 100% of ordinances applicable to post-construction control measures and maintenance of post-construction control measures in areas of new and redevelopment.
BMP 4.2 Update Plan Review and Construction Inspection Programs	<p>The City will integrate post-construction stormwater quality requirements into plan review and site inspection programs.</p> <p>The City will evaluate existing procedures and identify needed changes and implement the revised programs.</p>	Public Works & Community Development	December 2023	Implement 100% the revised plan review and inspection programs.
*BMP 4.3 Structural and Non-structural BMPs	The City 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 that protect water quality and reduce bacterial discharges.	Public Works	December 2023	Review 100% of all qualifying development for compliance per city's adopted post construction legal authority.
BMP 4.4 Long-term Maintenance Plan	Require annual inspection of post-construction structural and non-structural controls to ensure maintenance.	Public Works	December 2023	Require annual inspection by property owner of 100% of privately-owned post construction controls.

## 2.5 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

### 2.5.1 Regulatory Requirement

Specific Requirements as stated in the General Permit for Level 2 Small MS4s:

#### (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 permittees 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.



## 2.5.2 Municipal Operations and Facilities Covered Under the SWMP

The NDCFCDD will implement BMPs for pollution prevention and good housekeeping as applicable within the District. The District does not own any equipment, and any storm drain facilities located beyond the property limits of the District are the responsibility of others. The District's facilities and infrastructure consist of a series of sumps, outfall structures, and intake structures. These are maintained as needed.

The City of Coppell performs the following operations that are impacted and covered by this SWMP:

1. Park and open space maintenance;
2. Street, road, or highway maintenance;
3. Fleet and building Maintenance;
4. Stormwater system maintenance;
5. New construction and land disturbances;
6. Water distribution;
7. Wastewater collection;
8. Emergency operations (police, fire, EMS).

The following table lists the names and locations of City owned and operated facilities that are impacted and covered by this SWMP:

Facility Type	Facility	Location
Buildings	Animal Shelter	821 S. Coppell Road
	Aquatic Center (The CORE)	234 E. Parkway Blvd
	Art Center Coppell	500 Travis
	OLD Arts Center	157 S. Moore Road
	Biodiversity Center	367 Freeport Parkway
	Columbarium Office Building	400 S Freeport Parkway
	Coppell Service Center	816 S. Coppell Road
	Fire Station #1	520 Southwestern Blvd
	Fire Station #2	366 S. MacArthur Blvd
	Fire Station #3	133 E. Parkway Blvd
	Fire Station #4	440 Northpoint Drive
	Justice Center	130 Town Center Blvd
	Library	177 N. Hartz Road
	Life Safety Park	820 S Coppell Road
	Grapevine Springs Community Center	345 W. Bethel Road
	Tennis Center	950 Creekview Drive
	Town Center	255 E. Parkway Blvd
"265 Building"	265 Parkway Blvd	
Utilities	Village Parkway Pump Station	1101 Village Parkway
	Water Tower #1	Southwestern Blvd
	Water Tower #2	1001 Northpoint Drive
	Deforest Road Lift Station	680 Deforest Road
	Sandy Lake Road Lift Station	1003 E. Sandy Lake Road
Parks	Andy Brown Park Central	364 N. Denton Tap Road
	Andy Brown Park East	260 E. Parkway
	Andy Brown Park West	363 N. Denton Tap Road
	Heritage Park	700 S. Coppell Road
	MacArthur Park	400 S. MacArthur Blvd
	Wagon Wheel	345 Freeport Parkway

### 2.5.3 MCM 5: Pollution Prevention/Good Housekeeping for Municipal Operations

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 5.1 Street sweeping	The City sweeps streets in order to reduce the amount of sediment and associated pollutants discharged to the MS4.	Public Works	2022 2023	<ul style="list-style-type: none"> <li>☐ Sweep all major intersections a minimum of <b>4 times per year.</b></li> <li>☐ Sweep all major roads a minimum of <b>2 times per year.</b></li> </ul>
*BMP 5.2 Stormwater System Maintenance	The City performs annual cleaning of the concrete drainage channels as well as the periodic inspections of the inlets, junction boxes, and stormwater outfalls to ensure that the system is free and clear of sediment and floatables as well as to ensure that the system is intact and operating properly. Bacteria may attach to floatables, debris, sediment, and other materials. Refraining from removing such materials could influence bacteria levels in waterways.	Public Works	2022 2023	<ul style="list-style-type: none"> <li>☐ Inspect 100% of concrete line channels annually.</li> <li>Document 100% of needed repairs or maintenance.</li> <li>Respond to 100% of reports of debris in concrete drainage channels</li> </ul>
*BMP 5.3 Wastewater Collection	The sanitary sewer is cleaned and video sewer lines on an annual basis. Trouble spots along the lines are cleaned on a monthly basis in order to prevent any outflows. Videos of the sanitary sewer are used to prioritize maintenance.	Public Works	2022 2023	<ul style="list-style-type: none"> <li>☐ Schedule <b>100%</b> of found trouble spots to the monthly maintenance schedule to prevent outflows.</li> </ul>
BMP 5.4 Vehicle Maintenance	Maintain permittee owned vehicles according to manufacturer's specifications and identify and eliminate vehicle fluid leaks.	Public Works Fleet	2022 2023	Repair 100% of vehicle fluid leaks identified on city owned vehicles.
BMP 5.5 Pesticide, Herbicide, and Fertilizer Application Training	Train employees on the proper use of pesticide, herbicide and fertilizer products. Comply with local, state, and federal regulations associated with pesticide and herbicide application (licensing regulations) and disposal.	Parks Department	2022 2023	<ul style="list-style-type: none"> <li>☐ Require 100% of employees applying fertilizer, herbicide, and pesticide to attend proper licensing and training and obtain a Pesticide Commercial/Noncommercial Applicator License from the Texas Department of Agriculture (TDA).</li> </ul>

**2.5.3 MCM 5: Pollution Prevention/Good Housekeeping for Municipal Operations (continued)**

Best Management Practices	BMP Description	Responsibility	Implementation Schedule	Measurable Goals
BMP 5.6 Program to Reduce or Eliminate Polluted Runoff from Municipal Operations	The City will continue the development and revision of the list of municipal facilities and operations that may contribute significant pollutants to the stormwater system. The existing pollution prevention practices, maintenance procedures, and other practices will be evaluated with regard to reducing the discharge of pollutants. Pollution prevention plans for municipal operations, such as maintenance and storage yards, fleet maintenance, and pesticide and herbicide treatments will be revised and implemented as needed	Parks Department and Public Works	2022 2023	Evaluate 100% the existing pollution prevention practices, maintenance procedures, and other practices for municipal operations. Update 100% of practices & procedures as needed to prevent runoff from municipal operations.
BMP 5.7 Maintenance & Operations Contractor Oversight	Require any contractor contracted with the City to comply with all applicable ordinances stormwater control measures, good housekeeping practices, and facility specific stormwater management procedures. BMP will ensure appropriate control measures and SOPs are being used by all City contractors. <ol style="list-style-type: none"> <li>1. Utilize standard contract language requiring compliance with City stormwater pollution prevention measures, good housekeeping practices, and facility operating procedures.</li> <li>2. Investigate stormwater quality reports concerning contracted maintenance activities.</li> </ol>	Public Works Engineering, Operations, CIP; Environmental Health; Parks Department; City Attorney	2022 2023	Include standard contract language in 100% of new or renewed service agreements with contractors hired to perform City maintenance activities with the potential to impact stormwater