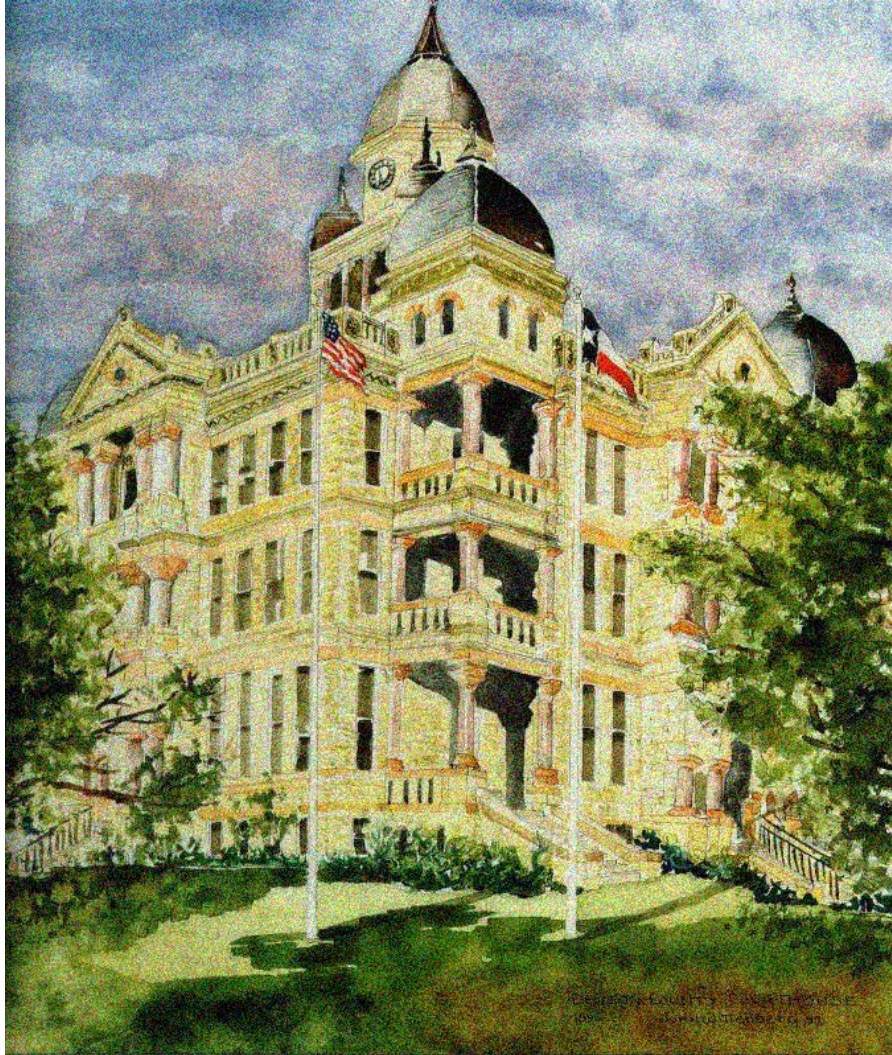


DENTON COUNTY
UNINCORPORATED URBANIZED AREAS
TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT TXR040000
2019-2024



PHASE II SMALL MUNICIPAL SEPARATE STORMSEWER SYSTEM
STORMWATER MANAGEMENT PLAN

July 23, 2019

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Note:

Detailed information about the Texas Commission on Environmental Quality (TCEQ) storm water permit rule, executive decision and fact sheets are available at the TCEQ website, www.tceq.texas.gov, and at Denton County Public Works Offices.

1.0 OVERVIEW AND DEFINITIONS

STORM WATER RULE OVERVIEW

The Texas Commission on Environmental Quality (TCEQ) continues to be authorized by EPA to issue and enforce the Texas Pollutant Discharge Elimination System (TPDES) Phase 1 and 2 storm water permits, in lieu of federal NPDES permits. Denton County was issued Permit #TXR040244. Effective 01/24/2019, TCEQ Commissioners approved the TPDES General Permit to authorize discharge of storm water from regulated Phase 2 MS4s. Permittees must submit applications for coverage to TCEQ before 7/23/2019. The application must include a Notice of Intent for coverage (NOI) and a Storm Water Management Program (SWMP). The NOI is a document that provides TCEQ with an official notification to seek permit coverage and identifies legally responsible parties for permit enforcement. The SWMP describes what actions are to be implemented by the permittee to address the required elements of a storm water program. The SWMP describes in detail which Best Management Practices (BMPs) will be implemented to meet permit requirements. The permit term covers 5 years (01/24/2019 – 01/24/2024). The permit will be renewed at 5 year intervals, which will likely require changes to the SWMP for future permit approvals.

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 total maximum daily load (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-of-way barriers with drainage slots that drain into open culverts, open swales or an adjacent property, or otherwise not actually discharging into waters of the U.S. are not considered an outfall.

Permittee - The MS4 operator authorized under this general permit.

Point Source - (from 40 CFR § 122.22) any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural 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 publicly owned treatment works (POTW) as defined in 40 CFR § 122.2; and
- (e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

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

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 (MHW) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or 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.

2.0 INTRODUCTION

This document describes the actions and programs implemented by Denton County that protect stormwater in unincorporated Denton County and at Denton County facilities. It covers Denton County's municipal operations and facilities that have the potential to impact the quantity and quality of stormwater runoff that is eventually discharged to lakes, rivers and streams of the Trinity River Basin.

Regulatory Requirement

The federally mandated National Pollutant Discharge Elimination System (NPDES) program was established by Congress as part of the Federal Pollution Control Act, Amendments of 1972 as amended in 1977 and 1987 (the Clean Water Act) with the intent to preserve and restore the beneficial uses of the waters of the United States. The NPDES program regulates numerous sources of water pollution through a series of permits focused

on different activities, industries and other waste water and stormwater discharge sources. The U.S. Environmental Protection Agency (EPA) delegates NPDES permitting authority directly to the State of Texas which manages the Texas Pollutant Discharge Elimination System (TPDES) program through the Texas Commission on Environmental Quality (TCEQ).

The TPDES municipal stormwater program was implemented nationally in two phases. Under Phase I, only municipalities whose 1990 census populations exceeded 100,000 were covered under the general municipal stormwater permit. Phase II was implemented in 2007 and extended municipal stormwater permit coverage to additional operators (small Municipal Separate Storm Sewer Systems in urbanized areas), which included Denton County.

The TPDES municipal stormwater program requires Permittees to use stormwater best management practices (BMPs), which range in scope from constructing new drainage structures to educating the public, for the purpose of reducing the discharge of pollutants to the maximum extent practicable (MEP).

Municipal stormwater discharges from unincorporated Denton County have been covered by the Phase 11 Municipal Stormwater Permit (general permit) since 2007. The general permit was renewed on January 24, 2019.

The renewal of the general permit requires that Denton County reapply for Permit coverage and to assess, modifying as necessary, this Stormwater Management Program (SWMP) to develop and implement new elements if necessary, while continuing to implement applicable existing elements.

Regulated small MS4s are categorized into four levels, with different permit requirements applied to each level for some of the program elements:

- 1) Level 1 serves a population of less than 10,000 within an urban area (UA);
- 2) Level 2 serves 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 in the UA);
- 3) Level 3 serves a population of at least 40,000 but less than 100,000 within a UA; and
- 4) Level 4 serves a population of 100,000 or more within a UA.

Denton County is categorized as a Level 2, non-traditional MS4.

Denton County, Texas Demographics

Denton County was founded in 1846 by the Texas Legislature out of what was a much larger Fannin County. Denton County has a total of 879 square miles of land surface with an estimated 754.3 persons per square mile. The Denton County boundary covers an area of 953 square miles, including lake surfaces. The 2010 census from the US Census Bureau reports Denton County has 662,614 residents.

According to the 2010 Census Report the bulk of the urbanized area within Denton County is in the middle and southeastern portions of the county with several smaller urbanized areas scattered throughout the county. Under the 2013 permit there were three Phase I MS4's, listed below, within Denton County that remain classified as such under the 2019 permit.

Phase I MS4s in Denton County		
Dallas	Fort Worth	Plano

Description of Receiving Waters

A large portion of the Elm Fork-Trinity Watershed, about 34%, falls within Denton County's boundary. This watershed includes two major lakes in the area: Lake Lewisville and Lake Ray Roberts. Portions of southwest Denton County empty into the Denton Creek watershed, with about 30% of the Denton Creek Watershed in Denton County. Denton Creek begins in Wise County, and flows southeast into Denton County. It was dammed by the Army Corps of Engineers to make Lake Grapevine. After flowing out of the lake, Denton Creek flows into the Trinity River. The Denton Creek and Elm Fork-Trinity watersheds cover a total area of about 2,576 square miles, with about 37% located within Denton County.

The receiving water bodies in Denton County include Lake Ray Roberts, Lewisville Lake, Grapevine Lake, and the Elm Fork-Trinity River. The three lakes are comprised of about 103 square miles total, and they serve primarily as flood control for the Trinity River Basin. The three lakes also provide drinking water for neighboring municipalities, the City of Dallas, and local municipal utility districts.

Grapevine Lake (Segment *ID 0826_07*) is impaired for pH in the upper portion of reservoir east of Marshall Creek Park (also known as Trophy Club Park). A review of the list of segments with Total Maximum Daily Loads (TMDL) adopted indicates that a TMDL has not been established for this segment. Most pH impacts in urban waters are caused by runoff of rainwater with low pH levels (acid precipitation) which can be caused from a variety of human activities. pH pollution in surface waters can arise from increased acidity from acid rain, acid groundwater discharge to streams, and from industrial and municipal discharges. Since there is a lack of information regarding the specific pollutant and pollutant source(s) causing or contributing to the pH pollutant, Denton County does not have enough information to determine if its stormwater discharges are contributing to the pH impairment. If information becomes available indicating that the County's discharges contribute to the pH impairment, focused BMPs will be implemented along with corresponding measurable goals to eliminate the discharge.

The other receiving water bodies listed above have been assessed and were not listed as impaired according to the 2014 Integrated Report Index of Water Quality Impairments dated November 19, 2015. None of the water bodies in Denton County discharge into the Edwards Aquifer Recharge Zone, onto Indian Lands, or into areas that would adversely affect a listed endangered or threatened species or its critical habitat.

Endangered Species in Denton County

Within Denton County, one bird and one mammal are listed as federally endangered or threatened. The whooping crane (*Grus Americana*) and the red wolf (*Canis rufus*) both have a potential or known presence within the County. According to Texas Parks and Wildlife, the whooping crane is a potential migrant through most of the state, including Denton County, and it winters in the coastal marshes of Aransas, Calhoun, and Refugio counties. The red wolf has become extirpated in Texas, but historically was known throughout the eastern half of the state in brushy, forested areas, as well as coastal prairies.

Due to the migratory or extirpated nature of each species, discharges will not adversely affect them or their critical habitat, and site-specific controls are required to ensure that protection of endangered or threatened species is achieved.

Denton County Organization and Resources

Regulatory Mechanism Restrictions on Texas Counties

Unlike Cities, Counties are not authorized by the State of Texas to enact ordinances and implement all of the regulatory requirements that the Phase II permit requires. Denton County implements BMPs "to the extent allowable under state and local law" as described in the appropriate Minimum Control Measures (MCM) sections of this SWMP.

Denton County Commissioners' Court

The Denton County Commissioners' Court (the Court) is the general governing body of Denton County. The Court consists of the County Judge who is an elected official that presides over the full Court and four County

Commissioners, each elected from one of the County's four precincts.

The four County Commissioners have both countywide and precinct responsibilities. Each commissioner is responsible for construction and maintenance of County roads within his or her precinct. Some Commissioners maintain offices both at the Courthouse-On-The-Square and within their precinct. In Denton County, each member of the Court serves as a liaison to a particular board or agency of the County.

Despite the name, the Court is not a judicial court but is the general governing body of the County. Major responsibilities include, but are not limited, to the following:

- Set tax rates and adopt the County budget
- Appoint County officials and hire personnel
- Fill elective and appointive vacancies
- Establish voting precincts, appoint precinct judges and call County bond elections
- Let contracts and authorize payment of all County bills
- Build and maintain County roads and bridges
- Provide for veterans assistance
- Manage County facilities
- Provide data service and archival needs of the County

The Court serves as the signatory authority and provides oversight for this Denton County SWMP.

Public Works Department – Planning and Engineering

The Public Works Department provides the framework bringing Planning and Engineering divisions together forming a collaboration to provide a more effective community service in guiding development through policy and implementation. The Public Works Department facilitates both Stormwater Management and Floodplain Management. Planning is responsible for receiving and reviewing all permits related to development in the floodplain and is responsible for ensuring that all development in the unincorporated areas of Denton County is reasonably safe from flooding and for ensuring that no building occurs in the required setbacks and easements for subdivisions. Planning is also responsible for informing utility companies and the Denton Central Appraisal District of approved permits and for updating Letter of Map Amendments and Letter of Map Revisions on floodplain maps as prescribed by Federal Emergency Management Agency.

The Planning Department/Floodplain Division will primarily participate in the Illicit Discharge and Detection MCM.

The Department of Engineering provides oversight of road, bridge, and subdivision construction activities through permitting, construction plan review and inspections. Inspection and management duties include inspecting utility installations and providing countywide and precinct assistance for other departments such as the Road and Bridge Department.

The Department of Engineering will primarily participate in the BMPs for Construction Site Stormwater Runoff Control and Post-Construction Stormwater Management as described in the New Development and Redevelopment Minimum Control Measure section.

The Stormwater Management Division of the Engineering Department is responsible for developing, implementing and managing the SWMP. Other responsibilities include maintenance of the permitting system, reporting on general construction permits for public and county construction activities and assisting in the administration and enforcement of the Lake Ray Roberts Land Use Ordinance and the Denton County Subdivision Rules and Regulations, including Floodplain Management.

The Stormwater Management Division will participate in the administration and management of the SWMP and provide support for participating departments. It shall also ensure that there is adequate resources and funding to implement the requirements of the general permit.

Facilities Department

The Facilities Department is responsible for repairs and maintenance at 28 County facilities, including:

- General construction and remodeling
- Electrical
- Heating, ventilation, and air-conditioning (HVAC)
- Lawn care and landscaping
- Janitorial services
- General property management

The department is headquartered in the Denton County Government Center, located in the City of Denton and includes office space, storage and a mechanical / wood shop.

The Facilities Department will primarily participate in the BMPs as described in the Pollution Prevention/ Good Housekeeping for Municipal Operations MCM section. Participation will also be provided when conducting County construction activities where more than one acre of land surface is disturbed.

Fire Marshal's Office

The mission of the Denton County Fire Marshal's Office and Office of Emergency Management is to provide for, supervise, support, and train all Fire and Emergency Medical Service (EMS) departments within unincorporated Denton County.

The Offices provide services that focus on ensuring the health, safety, and welfare of Denton County citizens in accordance with Chapter 325 of the Texas Local Government Code, County policy, and sound emergency management practices. The Fire Marshal's Office/Office of Environmental Crimes has citation authority and peace officer authority as granted by the State of Texas and is responsible for environmental assessments and oversight of clean-ups from hazardous material releases.

The Denton County Fire Marshal's Office and Office of Emergency Management provide high quality professional services at the lowest possible cost to taxpayers of Denton County and the State of Texas; apply the law and County policies fairly and consistently throughout the County; and communicate openly with the public, elected officials, area fire departments, and law enforcement agencies served by Denton County.

The Fire Marshal's Office will primarily participate in the BMPs as described in the Illicit Discharge Detection and Elimination and the Pollution Prevention/Good Housekeeping for Municipal Operations MCM sections.

Health Department/ Environmental Division

The Environmental Health Division of the Denton County Health Department permits and inspects septic system installations in unincorporated Denton County. Inspectors review plans, inspect installations, issue permits, and review and monitor yearly maintenance contracts and quarterly inspection reports from maintenance providers. The Environmental Health Division is also responsible for investigating complaints pertaining to existing septic systems and providing parties with necessary corrective actions for violations.

The Environmental Health Division will primarily participate in BMPs as described in the Illicit Discharge and Detection MCM section.

Legal Department

The Civil Division of the Denton County District Attorney's Office provides legal advice on all civil matters involving the County. The Civil Division will provide legal advice to all County departments involved in this process.

GIS Department

The GIS (Geographical Information Systems) Department is responsible for developing and maintaining computerized data management systems designed to capture, store, retrieve, analyze, integrate, report, and display geographic and demographic data. The GIS staff provides support and training to other County departments and personnel. The GIS Department has developed and maintains an Internet Map Server (IMS) web site that provides County departments and the public with a platform for researching and reviewing spatial information about the County.

The GIS Department will primarily be participating in the BMPs described in the Illicit Discharge Detection and Pollutions Prevention/Good Housekeeping for Municipal Operations MCM sections.

Road and Bridge Department

The Road and Bridge Departments are responsible for repair and maintenance of roads and bridges inside the jurisdiction of Denton County. Road maintenance includes initial preparation for new construction, completing overlays, and seal coating. The Road and Bridge Departments maintain Denton County's right-of-way easements and signs, and provide personnel for trash and debris removal. The Road and Bridge Departments also address Commissioners' Court and constituent concerns and respond to emergencies, 24 hours a day.

The Road and Bridge Department is divided into two divisions. The East Division (Road and Bridge East) is headquartered in Sanger, with a vehicle maintenance and storage yard. Road and Bridge East manages a second material, equipment, and storage yard located in Aubrey. The West Division (Road and Bridge West) is headquartered in Argyle, with a vehicle, equipment, and maintenance yard. Road and Bridge West manages a second equipment and storage yard south of Krum.

The Road and Bridge Departments will primarily participate in the BMPs described in the Pollution Prevention /Good Housekeeping for Municipal Operations MCM section. Participation in BMPs described in other MCM sections will occur as needed, for County construction activities where more than one acre of land surface is disturbed.

Texas AgriLife Extension

The Denton County office of Texas A&M AgriLife Extension Service (AgriLife Extension) provides educational programs, publications, and advisory services about watershed management and water quality protection to decision makers in Denton County. The AgriLife Extension provides technical stormwater management information to land managers of every type and scale: both public and private; in both rural and urban areas. For example, farmers, ranchers, landscape contractors, property managers, homeowners, and support industries impacting the entire watershed. Emphasis is given to helping land managers achieve their management objectives while conserving natural resources and protecting the environment-including water quality.

The AgriLife Extension will participate primarily in the BMPs described in the Public Education, Outreach, and Involvement MCM section.

3.0 STORMWATER MANAGEMENT PROGRAM (SWMP)

Denton County has developed this SWMP to include the MCMs described below. The general permit has a tiered a 4 level approach to meeting the MCM requirements.

Denton County is categorized as a Level 2 Non-Traditional Small MS4. Each of the following sections contain a summary of each MCM requirement for Level 2 MS4s, followed by Denton County's list of BMPs and measurable goals.

MCM #1: Public Education, Involvement, and Outreach

MS4 operators are required to implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The general permit also requires a public involvement and participation program that, at a minimum, complies with state and local public notice requirements.

Denton County's stormwater education and outreach program is intended to increase public awareness and understanding of stormwater related issues influencing surface water quality and the benefits of protecting watersheds inside the jurisdiction of the County. In developing its BMPs, goals and objectives, Denton County

considered high priority community wide issues facing the region, such as the presence of E. coli in a large number of water bodies in the Trinity River Basin. Denton County has identified and analyzed its target audiences, which are included in the descriptions for the BMPs. Denton County has and will continue to develop or identify existing educational materials and will continue partnering with other MS4 operators in the County and the North Central Texas Council of Governments (NCTCOG), in order to maximize the program and cost effectiveness of the required outreach.

BMPs to be used in addressing this MCM are presented in the table below. Included with each BMP is a description of what records will be maintained.

MCM #1 PUBLIC EDUCATION, OUTREACH AND INVOLVEMENT - MEASUREABLE GOALS AND RECORDKEEPING

Best Management Practice (BMP)	BMP Description	Measurable Goal	Implementation Schedule
BMP 1(a) Stormwater Web Site	Maintain a website describing Denton County's SWMP , including information related to water quality for water bodies located within the County.	Record number of hits to website on a quarterly basis.	Quarterly in Years 1 through 5
BMP 1(b) Development Support Committee (DSC) Meetings	All new subdivisions are required to go through Denton County's DSC for permitting approval. A representative of Public Works will attend DSC meetings and present stormwater control expectations for developing subdivisions.	Public Works representative to attend 75% of meetings annually.	Annually in Years 1 through 5
BMP 1(c) Education Programs, Publications, and Advisory Services	Provide educational programs/publications and advisory services to land managers, farmers, ranchers, landscapers, homeowners, government entities, corporations, businesses, property managers, to promote environmental stewardship and natural resource conservation.	Distribute at least 200 brochures annually by making the material available at permitting desk and the AgriLife Extension.	Annually in Years 1 through 5
BMP 1(d) NCTCOG Partnership Opportunities	Participate in the NCTCOG Regional Strategy for Managing Stormwater Quality.	Annually complete one commitment response form and participate in cost share.	Annually in Years 1 through 5
BMP 1(e) Stormwater Information Booth	Provide portable information booth promoting public awareness of stormwater issues at public events such as the North Texas Fair and Rodeo.	Participate in at least one event per year.	Annually in Years 1 through 5
BMP 1(f) Texas SmartScape Program	Promote Texas SmartScape Program. SmartScape encourages landscapers to use native and adaptive plants in order to reduce pesticide/herbicide use.	Provide one link to SmartScape www.txsmartscape.com on County stormwater web page. Record number of hits to website on an annual basis.	Annually in Years 1 through 5
BMP 1(g) Construction Stormwater Management Brochure	Circulate brochure on construction stormwater management.	Distribute information 100% of the time with commercial permits annually.	Annually in Years 1 through 5
BMP 1(h) Public Notification	Provide public opportunity to comment on SWMP.	Publish one public notice of hearing.	Annual in Year 1
BMP 1(i) Stormwater Reporting Hotline	Provide contact information to report illicit discharges on the County's Stormwater website page.	Record and track 100% of illicit discharge reports.	Ongoing in Years 1 through 5.

BMP 1(j) Adopt A County Road	Promote the Adopt-A-County-Road program for litter abatement along roadways.	Provide information on the Adopt-A-County-Road program on the County's stormwater web page. Record number of hits to website on an annual basis.	Annually in Years 1 through 5
BMP 1(k) Permit Compliance	Promote public awareness of County's stormwater management compliance. Post SWMP and annual compliance reports on county website: https://dentoncounty.com/Departments/Public-Works-Engineering/Storm-Water	Post SWMP on County's stormwater management web page in year 1 and post annual compliance reports on County's stormwater management web page every year in years 2 through 5.	SWMP posted in permit year no later than 30 days after approval and annual reports to be posted annually no later than 30 days after due date every year 2 through 5
BMP 1(l) Education on E. coli pollutant	Promote public awareness in the reduction and abatement of E. coli pollutant in streams. https://dentoncounty.com/Departments/Health-Services/Denton-County-Public-Health/Environmental-Division	Provide a link on the Public Health Environmental Division webpage to one E. coli bacteria article each year. Record number of hits to website on an annual basis.	Annually in Years 1 through 5

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MCM #2: Illicit Discharge Detection and Elimination (IDDE)

MS4 Operators are required to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. As such, Denton County must respond to complaints about illicit discharges or spills and to actively seek out illicit discharges and behaviors that could result in illicit discharges such as illegal connection to the MS4, improper disposal of wastes, or dumping of used motor oil or other chemicals. Additionally, education and training of Denton County field staff which may come into contact or otherwise observe an illicit discharge or connection is critical to successful elimination.

Key to effectively detecting and eliminating illicit discharges is to have an up-to-date map showing the location of all outfalls discharging into waters of the United States and the names and locations of surface waters receiving discharges from the outfalls. An up-to-date storm sewer map containing the stormwater outfalls within the MS4 specifically describing the location of the outfalls and the names and locations of all receiving water bodies will be maintained. However, unlike Cities, Denton County's storm drainage system is not a traditional underground closed system. Instead, Denton County's storm drainage system consists of roadway unlined ditches. Denton County will map these outfalls, where a ditch or other stormwater conveyance discharges to a stream, lake or other type of surface water.

The IDDE MCM consists of BMPs that focus on the detection and elimination of illicit discharges into the MS4. Denton County will continue to promote best management practices pertaining to watershed protection and discourage illicit discharges (unallowable, non-stormwater discharges) to permitted storm sewer systems.

Non-stormwater flows listed below are not considered to be illicit discharges unless the flow has been identified by TCEQ or Denton County as a significant source of pollutants.

- 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 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;
- 14) Street wash water;
- 15) 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);
- 16) Other allowable non-stormwater discharges listed in 40 Code of Federal Regulations (CFR) §122.26(d)(2)(iv)(B)(1)
- 17) Non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR0S0000 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, unless the TCEQ develops permits or regulations addressing these discharges.

Denton County does not currently have a Commissioners' Court Order to prohibit and/or eliminate illicit

discharges because Denton County lacks the statutory authority to do so. Denton County does not currently have interlocal cooperation agreements with any municipalities within the County for enforcement of illicit discharges, because Denton County cannot authorize a municipality to enforce violations within the unincorporated areas.

Denton County has established local controls for common and incidental non-stormwater discharges that the County does not consider to be illicit, including the Denton County Subdivision Rules and Regulations, as adopted by the Denton County Commissioners' Court. The Subdivision Rules establish drainage standards for new development in the unincorporated areas of Denton County. Also, the Denton County Culvert Policy, as adopted by the Denton County Commissioners' Court, provides for regulations for the installation and capacity of culverts in the unincorporated areas of Denton County.

Denton County will continue to utilize inter-governmental cooperation in maintaining reporting hotlines, and it will also continue to train field personnel on how to recognize, report, and investigate illicit discharges using the IDDE Guidance available from the NCTCOG.

Denton County will continue to promote source elimination through partnerships with local communities for Household Hazard Waste programs.

Specific BMPs anticipated to be used to address this MCM are presented in the table below. Included in each BMP is a description of what records will be maintained and provided in the annual reports and implementation schedule.

MCM #2 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) - MEASUREABLE GOALS AND RECORDKEEPING

Best Management Practice (BMP)	BMP Description	Measurable Goal	Implementation Schedule
BMP 2(a) Employee Training	Continue training County field personnel in recognition and reporting of illicit discharges. Utilize curricula available from NCTCOG.	Train 30% of public works employees each year.	Annually in Years 1 through 5
BMP 2(b) Illicit Discharge Notification and Elimination	Continue to notify violators of potential or confirmed illicit discharges.	Notify 100% of violators.	Ongoing in Years 1 through 5
BMP 2(c) Septic System Inspections	Inspect and permit newly installed septic systems. Inspect suspected OSSF violations. Take corrective action as needed.	Inspect 100% of new systems and reported OSSF violations.	Ongoing in Years 1 through 5
BMP 2(d) Litter Abatement	Inspect reported illegal dumping activities. Take corrective action as needed.	Inspect 100% of reports.	Ongoing in Years 1 through 5
BMP 2(e) Storm Sewer Map Maintenance	Update layers on CAD/GIS to identify all outfalls and their receiving waters depicting names and locations of Waters of the US receiving outfall discharges.	Update 20% of map annually.	Annually in Years 1 through 5
BMP 2(f) NCTCOG Illegal Dumping Hotline	Continue partnership with NCTCOG, reviewing reports forwarded from them about illegal dumping, as reported to the regional <i>Stop Illegal Dumping Hotline</i> .	Respond to 100% of reports.	Ongoing in Years 1 through 5
BMP 2(g) Household Hazardous Waste	Continue to partner with local communities to offer residents of unincorporated Denton County the opportunity to dispose of Household Hazardous Waste.	Handout 25 vouchers to use at local Household Hazardous Waste Collection Centers each year.	Annually in Years 1 through 5

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MCM #3: Construction Site Stormwater Runoff Control

MS4 operators are required to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance of one acre or greater and to ensure that construction site operators use appropriate erosion and sediment controls to reduce or eliminate impacts on receiving water bodies.

As such, Denton County is required to implement procedures to review construction site plans and to conduct inspections of large and small construction projects. Written procedures are used to review construction plans, which describe which plans will be reviewed as well as when an operator may begin construction. The procedure also includes instructions on performing plan reviews so that the County's review process is consistent. Construction site inspections will be conducted in accordance with established procedures by trained field staff.

All Denton County-owned construction sites will comply with TCEQ Construction General Permit No. TXR150000. Each required site will incorporate a Stormwater Pollution Prevention Plan (SWP3) including adequate sediment and erosion controls. Waste from construction sites shall be the responsibility of the contractor performing the work. Contractors shall be responsible for addressing construction waste based on the appropriate Federal, State and local laws. County crews will be responsible for managing construction waste from County-led projects.

Site inspections will be conducted at Denton County-owned construction sites in accordance with the TCEQ Construction General Permit. Follow-up inspections will be conducted, as needed, based on inspection findings.

BMPs to be used in addressing this MCM are presented in the table below. Included in each BMP is a description of what records will be maintained and provided in the annual reports and implementation schedule.

MCM #3 CONSTRUCTION SITE STORMWATER RUNOFF CONTROLS - MEASUREABLE GOALS AND RECORDKEEPING

Best Management Practice (BMP)	BMP Description	Measurable Goal	Implementation Schedule
BMP 3(a) Construction Site Review	Require developers to provide SWP3s for review by Denton County personnel prior to Development Permit approval for construction activities disturbing an acre or more. Obtain copy of Notice of Intent (NOI) for each applicable construction activity.	Review 100% of SWP3 and record copy of NOI for each applicable construction project.	Ongoing in Years 1 through 5
BMP 3(b) Construction Site Inspections	Inspect small and large construction projects.	Inspect 2 applicable construction projects and provide written report each year in urbanized area. If there are none in urbanized area inspect 2 applicable construction projects and provide written report each year in non-urbanized areas.	Ongoing in Years 1 through 5
BMP 3(c) County Construction Projects	Denton County projects will be appropriately documented and permitted according to TPDES CGP TXR 15000	Prepare permit applications and NOI documentation for submission to TCEQ for 100% applicable projects.	Ongoing in Years 1 through 5
BMP 3(d) MS4 Staff Training	Utilize NCTCOG training resources to ensure that staff whose primary job duties are related to implementing the construction stormwater program are appropriately trained.	Conduct one training session per year.	Annually in Years 1 through 5

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

Developed land changes the hydrology of sites, leading to higher stormwater discharge volume and higher pollutant loads. Frequently, the volume, duration, and velocity of stormwater discharges can cause degradation to aquatic systems. Effective post-construction stormwater management will minimize water quality impacts and attempts to maintain pre-development conditions. Therefore, MS4 operators are required to develop, implement, and enforce a program, to the extent allowable under state, federal and local law, to control stormwater discharge from new development and redevelopment projects that discharge into the small MS4 that disturb one acre or more of land. The program must also ensure controls are in place that would prevent or minimize water quality impacts.

Denton County has not entered into any interlocal cooperation agreements for enforcement of this post-construction stormwater development because Denton County lacks the statutory authority to do so. Subject to applicable law and formal approval of the Denton County Commissioners' Court, Denton County will coordinate with TCEQ for enforcement of this provision.

Like most rural Texas counties, Denton County allows the use of unlined or pervious drainage ditches in lieu of impervious concrete curb and gutter pavement sections in combination with underground storm sewer/drain pipe systems and/or concrete lined channels which cities typically require and/or allow. At grade open/unlined grassy ditch systems allow more stormwater runoff to soak or filter into the ground as opposed to impervious systems. This type of low impact drainage system thereby reduces downstream runoff velocities and erosion, and provides a means of detaining and treating, to some degree, pollutants such as sediments, fertilizers, nutrients, detergents, etc. It also allows illicit discharges to pool and collect making them easier to detect, locate and consequently to investigate the probable source, thus expediting the illicit discharge detection and elimination. Denton County maintains these open ditch systems when they are located within the County Road Right-of-Way, easement, prescriptive easement, and shall continue to do so throughout the permit period.

Denton County will continue participation with NCTCOG on municipal stormwater issues through the Regional SWMP. Construction Site Stormwater Runoff Control is achieved regionally by utilizing the NCTCOG website for informational support and access to BMPs. Specifically, NCTCOG's iSWM Design Manual was created to provide guidance to governmental entities, property owners, land developers, engineers, and contractors for reducing the impact of stormwater runoff from construction activities on downstream natural resources and properties. The iSWM Design Manual establishes the framework and provides the tools to effectively plan, install and maintain erosion and sediment controls, soil stabilization and Best Management Practices (BMPs) for construction site stormwater runoff. Coordination meetings with program updates including watershed roundtable discussions for the multiple municipalities, counties and governmental agencies are facilitated by NCTCOG quarterly.

Post-construction stormwater quality regulations and technical standards for new development and redevelopment projects are implemented and enforced within the County MS4 that disturb greater than or equal to 1 acre, including projects less than one acre that are part of a larger common plan of development. The mechanism of enforcement includes the permitting system administered by the Public Works, Planning Division for subdivisions and land improvements. Proposed control measures are reviewed during the permitting process and are inspected post-construction. To ensure long-term maintenance of structural controls, responsible parties are determined during the permitting process. The County will develop and implement regulations, regulatory mechanisms, and procedures to the extent allowable under State law, to ensure adequate long-term operation and maintenance of post-construction stormwater control measures discharging to the County MS4. Regulations and mechanisms may include specifying responsible parties through subdivision plat notes, drainage/conservation easements, or maintenance agreements. Denton County will implement procedures for periodic inspection and maintenance of structural controls for which Denton County takes responsibility as part of the County's infrastructure. BMPs anticipated to be used to address this MCM are presented in the table below. Included in each BMP is a description of what records will be maintained and provided in the annual reports and implementation schedule.

MCM #4 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT - MEASUREABLE GOALS AND RECORDKEEPING

Best Management Practice (BMP)	BMP Description	Measurable Goal	Implementation Schedule
BMP 4(a) Permit Application and Plan Review	Implement a permit checklist review system used during applicable site plan reviews, which includes identification of post-construction stormwater regulation requirements.	Document 100% of construction plan review.	Ongoing in Years 1 through 5
BMP 4(b) Post Construction Stormwater Controls Inspection and Maintenance	Continue inspection program for applicable projects to ensure controls are constructed as per plans.	Inspect sites following receipt of the Notice Of Termination. Document and file inspection reports and create an annual report of their disposition.	Ongoing in Years 1 through 5
BMP 4(c) Flood Plain Development Permit	Denton County Certified Floodplain Manager in the Public Works Department receives permit applications and reviews to determine if it is in compliance with county and FEMA regulations. If the application is in compliance then a permit is issued.	Issue at least 10 floodplain development permits per year in the urbanized area. If there are not 10 in the urbanized area then at least 10 floodplain permits per year in the non-urbanized area will be issued.	Ongoing in Years 1 through 5
BMP 4(d) Allow Pervious Drainage Systems	Denton County Subdivision Rules and Regulations generally requires developers in unincorporated areas to use open, unlined grassy storm drainage ditches next to streets. In ETJ, cities may supersede this policy, but in most circumstances, this policy will be in effect.	Document each year one Denton County Subdivision Rule and Regulation requiring grass storm drainage ditches along roads.	Annually in Years 1 through 5
BMP 4(e) NCTCOG's iSWM Design Manual for Construction	Provide link on Denton County Stormwater page to NCTCOG website for informational support and access to BMPs for construction site stormwater runoff. Promote NCTCOG's iSWM Design Manual for Construction. The manual provides guidance to governmental entities, property owners, land developers, engineers, and contractors for reducing the impact of stormwater runoff from construction activities on downstream natural resources and properties.	Record number of hits to website on an annual basis.	Annually in Years 1 through 5

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

MS4 Operators are required to develop and implement an operation and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. O&M activities include storm sewer system maintenance, road maintenance, and chemical applications, among other things.

Denton County must develop and maintain an inventory of facilities and stormwater controls that it owns and operates. The inventory must include the following types of facilities:

- 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. Solid waste handling and transfer facilities
- q. Street repair and maintenance sites
- r. Vehicle storage and maintenance yards
- s. Structural stormwater controls

O&M activities are evaluated for their potential to discharge pollutants into stormwater. Pollutants of concern from these activities will be identified, and pollutant prevention measures will be developed and implemented. Standard procedures will be developed to visually inspect the pollution prevention measures and maintain structural controls. Finally, Denton County employees responsible for municipal operations will be trained on implementing pollution prevention and good housekeeping practices.

BMPs anticipated to be used to address this MCM are presented in the table below. Included in each BMP is a description of what records will be maintained and provided in the annual reports, and implementation schedule.

**MCM #5 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATORS –
MEASUREABLE GOALS AND RECORDKEEPING**

Best Management Practice (BMP)	BMP Description	Measurable Goal	Implementation Schedule
BMP 5(a) Employee Training	Continue to train applicable employees involved in implementing pollution prevention and good housekeeping practices.	Conduct at least one training session annually for Road & Bridge facilities and Maintenance garage.	Annually in Years 1 through 5
BMP 5(b) Facility Inventory	Manage inventory of county's facilities and evaluate O&M activities for their potential to discharge pollutants in stormwater in urbanized areas.	Complete inventory of facilities in year 1. Evaluate 25% of facilities annually in years 2 through 5.	Annually in Years 1 through 5
BMP 5(c) Waste Disposal	A report will be updated to document written procedures for proper disposal of waste generated from County MS4 related operations and maintenance (i.e., cleanout of catch basins).	Review one report twice during the 5 year permit.	Annually in Years 2 and 4.
BMP 5(d) Contractor Oversight	Continue to maintain over sight procedures requiring hired contractors to comply with MS4 operator's facility and site-specific SOPs. These requirements will be placed in the agreements with contracts that go before Commissioners Court.	Provide two Commissioners Court agenda items per year.	Annually in Years 1 through 5
BMP 5(e) Application Events by County Licensed Applicators for Pesticides	Denton County Public Health Vector Control Team has licensed pesticide applicators who maintain an SDS of all pesticides purchased and used in unincorporated Denton County. In following state and federal regulations, the team will follow safe application practices to protect public health, environmental health, and stormwater runoff.	Public works staff will receive one spray event report from Environmental Health Staff at the end of each year.	Annually in Years 1 through 5

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4.0 RECORD KEEPING AND REPORTING

Recordkeeping

Denton County will maintain all records, a copy of the TPDES general permit and all data used to complete the application (NOI) for this permit, for a period of at least three years, or for the term of this permit, whichever is longer. A current/updated copy of the SWMP, NOI and a copy of the permit language/requirements will be maintained at the Denton County Public Works Department.

Denton County will make the records, including the NOI and SWMP available to the public, if requested to do so in writing. The SWMP will be available within 5 working days following the request from the public. Other records will be provided within 10 working days, unless the request requires an unusual amount of time or effort to assemble. In this case, Texas law regarding the Public Information Act will be followed. Reasonable charges, in accordance with Texas law, may be levied by the County for researching and preparing any requested materials.

Annual Report

Denton County will submit an annual report to the Executive Director of TCEQ within 90 days of the end of each permit year. The annual report will address the requirements listed in the TPDES Phase 2 MS4 general permit rules. The County will also maintain hard copies of annual reports at the office of Denton County Public Works and the annual reports will be available for review on the Denton County Stormwater webpage.

Denton County plans to use the calendar year option as annual reporting year. For example, Permit Year One (January 1, 2019 to December 31, 2019), Denton County's Permit Year One Annual Report will be submitted 90 days after December 31, 2019.