

CITY OF NORMAN

# — SWMP

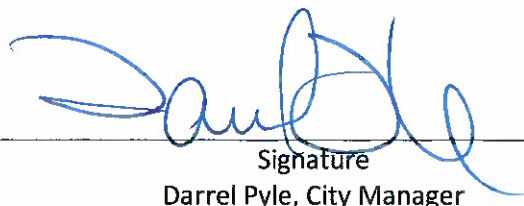
## Stormwater Management Plan

2022

**Phase II Small Municipal Separate Storm  
Sewer System (MS4) General Permit (OKR04)**

Authorization No. OKR040015

August 2022

  
Signature  
Darrel Pyle, City Manager

  
Date



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## 1.0 STORMWATER MANAGEMENT EXECUTIVE SUMMARY

The City of Norman (City) is subject to the requirements of the Oklahoma Department of Environmental Quality (ODEQ) Phase II Small Municipal Separate Storm Sewer System Discharges within the State of Oklahoma General Permit No. OKR04 (OKR04), issued June 1, 2021, which sets the requirements and conditions for stormwater discharges from a small municipal separate storm sewer system (MS4) to surface waters in the state.

The City previously developed and implemented a stormwater management program (SWMP) to comply with the original OKR04 issued on February 8, 2005. The City submitted a Notice of Intent (NOI), SWMP, and other required permit documents and received authorization under the general permit. This permit expired on February 9, 2010 but was administratively continued pending re-issuance. On October 1, 2015, the ODEQ reissued the OKR04 permit with an effective date of November 1, 2015. Existing permittees were required to submit a permit application for the permit by February 1, 2016. The City submitted a NOI and SWMP and received authorization under the reissued permit. The City's SWMP was further updated and adopted by the City on March 17, 2017.

This document describes the City's SWMP to protect water quality from stormwater runoff throughout the City and serves as the City's documentation of intended compliance with the current OKR04 permit. Three categories of MS4 entities are identified in the reissued OKR04 permit, with increasing responsibilities at each level. The City is classified as a Category 3 MS4, which has the highest level of responsibilities.

This program documents 40 best management practices (BMPs) that the City already has implemented or will implement over the next five years to meet the minimum requirements of the OKR04 permit. The City has identified these BMPs as being cost-effective approaches to protect water quality, recognizing the importance of protecting our natural and financial resources. A five-year implementation, maintenance, and documentation approach is contained within this SWMP.

### 1.1 Background

Stormwater affects the quality of water in urban lakes, rivers, neighborhood creeks, and storm drains. Pollutants (e.g., pesticides, oil, detergents, and bacteria) present on urban land and impermeable surfaces (e.g., streets and parking lots) can be transported by stormwater runoff into stormwater drainage systems.

These drainage systems, both natural and man-made, convey the stormwater runoff away from urban areas and into nearby water bodies.

In order to protect water quality, it is necessary to identify the types and sources of pollution and implement plans to protect the City's water resources. Historically, waters have been protected through state and federal regulation of "point sources" or end-of-pipe sources of pollution. Over time, it has become more evident that overland runoff sources of pollution, such as urban stormwater runoff, can create serious problems in waterways and impact the community's quality of life.

## **1.2 Stormwater Regulations**

Under the requirements of the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) is required to protect the water quality for natural waters throughout the country. The EPA established the National Pollutant Discharge Elimination System (NPDES) program to identify sources of water pollution and work to reduce or eliminate the pollutants from waters of the U.S. The EPA has delegated responsibility for the NPDES program in Oklahoma to ODEQ, who administers the Oklahoma Pollutant Discharge Elimination System (OPDES). In addition to issuing discharge permits to traditional "point sources," such as municipal wastewater treatment plants and industrial wastewater discharges, ODEQ is also responsible for minimizing pollution from other sources, such as stormwater runoff from construction sites, industrial facilities, and some stormwater drainage systems. For construction sites and industrial facilities, ODEQ issued requirements for minimizing stormwater pollution within general permits specific to those industries, which typically require development and implementation of site-specific stormwater pollution prevention plans.

### **1.2.1 Municipal Separate Storm Sewer System (MS4) General Permit**

In most areas of the country, storm drainage systems are separate from sanitary sewer systems and are thereby classified as "separate storm sewer systems." Separate storm sewer systems include ditches, curbs, gutters, storm sewers, and similar means of collecting or conveying runoff that do not connect with a wastewater collection system or treatment facility before discharging into water bodies. A municipal separate storm sewer system (MS4) is a system owned or operated by a public agency like a city, flood control district, county, or state agency.

In 1999, the EPA issued NPDES regulations to protect stormwater quality in smaller MS4s (known as Phase II MS4s) within US Census identified urban areas (UAs). The ODEQ, who was delegated the responsibility

of implementing the stormwater quality regulations, finalized the initial OKR04 permit on February 8, 2005. This OPDES permit has a five-year term but has been extended administratively each of the first two permit terms while ODEQ negotiated with EPA over the renewed permit conditions. The renewed OKR04 permit became effective on June 1, 2021 and has a five-year permit term. The City is one of more than 50 cities, counties, and other public entities subject to ODEQ's OKR04 permit.

### 1.2.2 Stormwater General Permit for Construction Activity

The ODEQ regulates stormwater discharges from most construction activity through OPDES General Permit No. OKR10 (OKR10). For construction sites disturbing one acre or more as well as sites that are less than an acre that are part of a larger common plan of development that will disturb more than one acre, a stormwater pollution prevention plan (SWPPP) must be developed and site controls must be installed, such as silt fence, inlet protection, and a stabilized construction site entrance, to minimize the discharge of sediment and other pollutants from the construction site. When construction is complete and the site is re-vegetated or otherwise stabilized, the control measures may be removed.

Phase II MS4s do not have direct responsibility to inspect and enforce construction sites for compliance with the requirements of the OKR10 permit, but requirements do exist for Phase II MS4s to require proper erosion control measures to be installed and maintained on construction sites, including the implementation of an ordinance. Many Phase II MS4s reference the OKR10 permit in a development ordinance for compliance consistency, and the 2021 OKR04 permit provides a specific allowance for regulated MS4s to reference the OKR10 permit to demonstrate their own compliance with construction site related oversight requirements.

### 1.2.3 Stormwater Multi-Sector General Permit for Industrial Activity

The ODEQ regulates stormwater discharges from developed sites in certain industrial classifications through OPDES General Permit No. OKR05 (OKR05). Sites operating in certain identified industrial sectors are required to develop, implement, and maintain a SWPPP for operations at the facility. These industrial sectors have been identified by EPA and ODEQ as high potential sources of significant stormwater pollutants, and as a result, the implementation of BMPs is required to protect water quality from stormwater runoff pollution. Types of BMPs for industrial facilities range from covered storage of materials to staff training. Ongoing stormwater monitoring of wet weather events is required to observe and test for stormwater pollution.

Phase II MS4s often have their own facilities subject to the industrial stormwater permit. Municipal landfills, wastewater treatment plants, and municipal airports are common city facilities that must comply with the industrial stormwater permit. Each of these facilities is required to be documented within the MS4's SWMP. Category 3 MS4s are also required to develop and implement a program to inspect and enforce stormwater quality runoff protection from industrial facilities that discharge to the MS4. This would be expected to include facilities subject to the OKR05 permit, although it also may include additional facilities determined by the MS4 to have high potential for stormwater pollution.

### **1.3 Permit Applicability and Coverage**

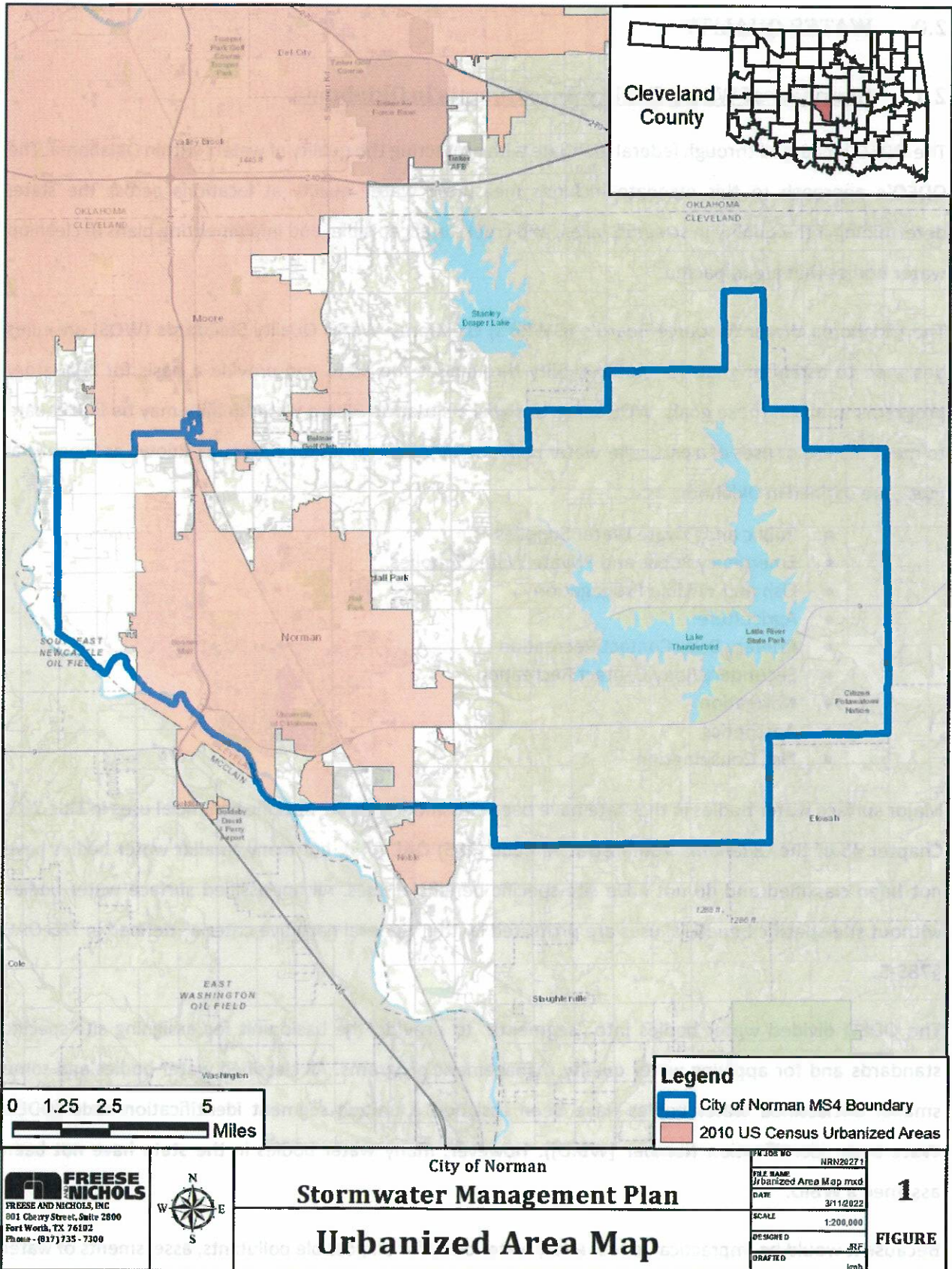
The City has updated this SWMP to comply with the requirements of the renewed OKR04 permit. This permit applies to operators of publicly owned storm sewer systems in UAs in Oklahoma and authorizes the City to discharge stormwater runoff from their stormwater drainage system. The U.S. Census Bureau defines the UAs based on a population density of 1,000 people per square mile and a total population of at least 50,000, irrespective of political boundaries. UAs represent densely developed areas and encompass residential, commercial, and other non-residential urban land uses. The City is located within the Oklahoma City and Norman U.S. Census UA as shown in Figure 1.

The SWMP encompasses the City's MS4 area to the City limit boundaries. The SWMP includes BMPs that will be implemented by the City to reduce stormwater pollution to the maximum extent practicable (MEP), as regulations require. This document serves as the City's SWMP.

### **1.4 City of Norman**

The City of Norman is the seat of Cleveland County and is located 17 miles south of the state capital, Oklahoma City. The City's economic base is mainly in education, manufacturing, and governmental agencies. The City of Norman encompasses approximately 190 square miles, with about 40 square miles, or 25,000 acres, being in the urbanized area. Existing land use in the urbanized area is approximately 22,000 acres residential, 1,400 acres commercial, 925 acres industrial, and 670 acres parklands. Three-fifths of Norman's total land area is undeveloped rural land in far eastern Norman.





## 2.0 WATER QUALITY

### 2.1 Overview of Water Quality Assessments in Oklahoma

The ODEQ is charged through federal mandate with protecting the quality of waters within Oklahoma. The ODEQ's approach to this mandate includes measuring water quality at locations across the state, determining if the quality in streams, lakes, and creeks is acceptable, and implementing plans to clean up water bodies that are impacted.

The Oklahoma Water Resource Board's (OWRB's) Oklahoma Water Quality Standards (WQS) are rules designed to establish goals for water quality throughout the state and provide a basis for regulatory programs to attain those goals. WQS serve to signal a situation where water quality may be inadequate to meet the use or uses of a particular water body. General categories for water use, known as "beneficial uses", are defined in Oklahoma as:

- Public and Private Water Supplies
- Emergency Public and Private Water Supplies
- Fish and Wildlife Propagation
- Agriculture
- Primary Body Contact Recreation
- Secondary Body Contact Recreation
- Navigation
- Aesthetics
- Fish Consumption

Major surface water bodies in the state have been classified with site-specific beneficial uses in Title 785, Chapter 45 of the Oklahoma Administrative Code (785) OAC §45), but many smaller water bodies have not been classified and do not have site-specific beneficial uses. All unclassified surface water bodies without site-specific beneficial uses are protected by the "general narrative criteria" defined in 785 OAC §785-5.

The ODEQ divided water bodies into "segments" to provide the basic unit for assigning site-specific standards and for applying water quality management programs. All classified water bodies and some smaller unclassified water bodies have been assigned a unique segment identification code (ODEQ Waterbody Identification Number [WBID]). However, many water bodies in the state have not been assigned a WBID.

Because it would be impractical to test every water body for all possible pollutants, assessments of water quality in Oklahoma are performed by evaluating indicators of water quality. Indicators are an indirect

measure of the health or quality of a particular part of the aquatic system. Some indicators, such as the health of fish communities, are tied to specific beneficial uses, while others, such as nutrients, are not. Some of the most common indicators used by ODEQ to determine the quality of water bodies include bacteria, dissolved oxygen, dissolved solids, metals, and organic substances.

If the indicator data published in the 2020 Oklahoma Integrated Report of Surface Water Quality (the 2020 IR) reveal that water quality is inadequate to meet the goals of the water body's beneficial use, the ODEQ identifies the water body as an impaired water in a section of the 2020 IR called the 303(d) list. The 303(d) list is required by the CWA and is submitted to EPA for approval. Water bodies added to the list are subject to a total maximum daily load (TMDL) assessment, which is an assessment of the root cause of poor water quality. An Implementation Plan (I-Plan) developed by local stakeholders to remediate pollution sources usually accompanies the TMDL.

For this permit, a water body is impaired if it has been identified, pursuant to the latest ODEQ and EPA approved CWA 303(d) lists or the 2020 IR for CWA Sections 305(b) and 303(d). Additionally, water bodies with concerns for non-attainment or screening levels are identified within the 2020 IR and can be useful to evaluate potential sources of impairments.

## **2.2 Water Quality in City of Norman**

The MS4 General Permit requires that the classified segment(s) that first receive(s) the City's stormwater discharges, either directly or indirectly, be identified. For the purposes of this evaluation, the MS4 is considered to be directly discharging to a receiving water if the waterbody is the first water of the U.S. receiving stormwater discharges from a regulated MS4 outfall. Indirect stormwater discharges include all stormwater flows outside of the MS4 boundary and segments downstream of the direct receiving water.

Stormwater runoff from the urbanized area is contained in two major watersheds: the Canadian River watershed and the Lake Thunderbird watershed. Eight creeks and their associated sub-watersheds drain into the Canadian River, which flows along the south edge of the urbanized area. Little River and its tributaries as well as Dave Blue Creek and Rock Creek drain to Lake Thunderbird. The majority of the urbanized area drains to the Canadian River; however, development is increasing in the Lake Thunderbird watershed.

The classified segment listed above, as well as unclassified water bodies that receive stormwater discharges before reaching the classified segment, are displayed within Figure 2 and summarized below

in Table 1. If the MS4 is discharging directly to an impaired segment or is discharging indirectly to a segment which is part of a watershed subject to TMDL requirements, the SWMP is subject additional permit requirements outlined in Section 3.2 and 4.4.

**Table 1. Receiving Waters within MS4**

WATER BODY	WATERBODY ID	WATERSHED
Bishop Creek	OK520610010180_00	Canadian River
Bishop Creek, unnamed tributary	OK520610010181_00	Canadian River
Brookhaven Creek	OK520610010205_00	Canadian River
Canadian River	OK520610010010_10	Canadian River
Canadian River	OK520610010010_05	Canadian River
Clear Creek	OK520810000050_00	Lake Thunderbird
Dave Blue Creek	OK520810000060_00	Lake Thunderbird
Elm Creek	OK520810000100_00	Lake Thunderbird
Hog Creek	OK520810000030_00	Lake Thunderbird
Imhoff Creek	OK520610010190_00	Canadian River
Jim Blue Creek	OK520810000070_00	Lake Thunderbird
Lake Thunderbird	OK520810000020_00	Lake Thunderbird
Little River	OK520810000010_00	Lake Thunderbird
Little River	OK520800020010_00	Lake Thunderbird
Little River	OK520810000080_00	Lake Thunderbird
Little River, North Fork	OK520810000170_00	Lake Thunderbird
Merkle Creek	OK520610010200_00	Canadian River
Mussel Shoals Lake Creek	OK520810000180_00	Lake Thunderbird
Prairie Creek	OK520800020130_00	Lake Thunderbird
Rock Creek	OK520810000090_00	Lake Thunderbird
Roulette Creek	OK520800020120_00	Lake Thunderbird
Ten Mile Creek	Unassigned	Canadian River
Woodcrest Creek	Unassigned	Lake Thunderbird

### **3.0 OKR04 PERMIT OVERVIEW**

The City is required to update this SWMP and describe specific actions that will be completed over a five-year period to reduce pollutants and protect the City's stormwater quality. This SWMP also sets measurable goals and provides a schedule for the implementation of BMPs over the next five years. The OKR04 permit divides MS4 operators into one of three categories based on the population served within the 2010 UA. The level of a Phase II MS4 may change during the permit term based on the MS4 operator acquiring or giving up regulated area, such as by annexing or de-annexing. However, the level of a Phase II MS4 will not change during the permit term based on population fluctuation. The three categories are described below:

#### **Category 1**

Operators of traditional Phase II MS4s that serve a population of less than 10,000 within an UA.

#### **Category 2**

Operators of traditional Phase II MS4s that serve a population of greater than or equal to 10,000, but less than 50,000, within an UA, or a population greater than or equal to 10,000 but less than or equal to 100,000 with a population density greater than or equal to 1,000/square mile or more outside of an UA.

#### **Category 3 (City of Norman)**

Operators of traditional Phase II MS4s that serve a population of greater than or equal to 50,000 within an UA.

### **3.1 Minimum Control Measure Summary**

Various BMPs must be developed for the minimum control measures (MCMs) that are expected to minimize or eliminate stormwater pollutants discharge into the storm sewer system and provide water quality protection for receiving water bodies. Five MCMs are required for all MS4s and a sixth MCM is required for Category 3 MS4s. An optional seventh MCM to address municipal construction activities through their SWMP is available for use by the City but has not been selected for inclusion in this SWMP. Specific requirements according to Phase II MS4 level have been developed by the ODEQ for each MCM, and the general description of the MCMs are provided below. The City is required to conduct an annual review and make updates to the SWMP, as necessary, and record changes in annual report. The BMP Activities and Documentation List (Appendix A) is designed to summarize all activities within the SWMP. A general description of each MCM is provided below:

A. Public Education and Involvement – Assess and modify existing elements, and develop and implement new elements, as necessary, for a public education and outreach program regarding stormwater quality issues and to reduce the discharge of pollutants from the MS4 to the MEP. The program involves the target audience including public employees, businesses, and the public with implementation of the program. In summary, this MCM requires the following program goals for all MS4 levels:

1. Include education and involvement efforts for target audiences.
2. Public education and involvement activities shall be conducted as outlined in Table V-2 and may include public involvement and educational activities listed in Table V-1. Table V-2 and V-1 are from the OKR04 permit provided in Appendix B.
3. Include a process by which public comments on SWMP are received and reviewed by the person(s) responsible for the SWMP.
4. Comply with state and local public notice requirements when implementing your program.
5. You must make your records, including NOI and SWMP, available to the public.
6. If you discharge to waters identified on the latest 303(d) list of impaired waters, your program must be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts on your impaired waters.

B. Industrial Stormwater Runoff Control– Category 3 MS4s shall implement and enforce a program to prevent or reduce pollutants in any stormwater runoff to your MS4 from independently-owned industrial activities that discharge into to the Phase II MS4. At a minimum, the program requirements shall be consistent with the OKR05 permit. In summary, this MCM requires the following program goals for all Category 3 MS4s:

1. Maintain and annually update a list of industrial facilities that are subject to OKR05, or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity, that ultimately discharge to the Phase II MS4.
2. Implement and enforce an ordinance, or other regulatory mechanism, to the extent allowable under state or local law, to require BMPs that will minimize exposure, provide good housekeeping, preventative maintenance, spill prevention and response, and erosion and sediment controls, as well as sanctions to ensure compliance. Review and revise your existing ordinance to meet permit requirements.
3. Implement and enforce procedures for site inspection and enforcement of control measures, including enforcement escalation procedures for recalcitrant or repeat offenders. Document inspection findings and take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure site compliance. At minimum site inspections shall be

conducted at the frequencies outlined in Table V-3 from the OPDES General Permit No, OKR04 provided in Appendix B.

C. Illicit Discharge Detection and Elimination (IDDE)– Assess and modify existing elements, and develop and implement new elements, as necessary, for a program to detect, investigate, and eliminate illicit discharges into the Phase II MS4. The program involves the creation of ordinances that prohibit non-stormwater discharges to the MS4, except those outlined as allowable non-stormwater discharges in the current Phase II MS4 permit and provides the City the authority to perform inspections and enforce the requirements through sanctions or other enforcement mechanisms for continued reduction of pollutants in MS4 discharge to the MEP. If necessary, new elements will be implemented by the end of the permit term. In summary, this MCM requires the following program goals for all MS4 levels:

1. Identify priority areas including areas with higher likelihood of illicit connections or discharges (e.g., areas with older sanitary sewer lines or with a history of sewer overflows or cross -connections; areas with older infrastructure that are more likely to have illicit connections; areas of industrial, commercial, or mixed use; areas with a history of past illicit discharges; areas with history of illegal dumping or citizen complaints; and areas that discharge to aquatic resources of concern (ARCs) or outstanding resource waters (ORWs). Update priority list to reflect changing priorities annually.
2. Trace or investigate the source of an illicit discharge. The investigation shall take place within 72 hours of the receipt of any complaints, reports or monitoring information that indicates a potential illicit discharge.
3. Remove the source of illicit discharge.
4. Identify problems using visual indicators and simple field test kits. Laboratory methods can be reserved for situations where you have identified a problem and need to enforce on a suspect illicit discharger.
5. At minimum, DWFS (Dry Weather Field Screening) shall be conducted at the frequency outlined in Table V-4 from the OKR04 permit provided in Appendix B.
6. Implement and enforce an ordinance, or other regulatory mechanism, to the extent allowable under state or local law, to effectively prohibit illicit discharges into the Phase II MS4 and implement appropriate enforcement procedures and actions.
7. Maintain and annually update a storm sewer system map showing the locations of all outfalls and the names and locations of all waters of the state that receive discharges from those outfalls.

8. Maintain and annually update a list of occasional incidental non-stormwater discharges or flows as allowed in Part II(B)(2) from the OKR04 permit provided in Appendix B that will not be addressed as illicit discharges.

D. Construction Site Stormwater Runoff Control – Assess and modify existing elements, and develop and implement new elements, as necessary, for a program to continue reducing illicit discharges from small and large construction activities. Develop and maintain an ordinance or other regulatory mechanism that allows for City enforcement of the receipt and collection of information, such as stormwater plans and reports and to enter and inspect private property related to stormwater discharges to the Phase II MS4 and prohibits the discharge of wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control; wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials; fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; soaps or solvents used in vehicle and equipment washing; and discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs. The program at minimum shall be consistent with the OKR10 permit. In summary, this MCM requires the following program goals for all MS4 levels:

1. Implement and enforce an ordinance, or other regulatory mechanisms, to the extent allowable under state or local law, to require erosion and sediment controls as well as sanction to ensure compliance. Review and revise your existing ordinance to meet the permit requirements.
2. Implement and enforce procedures for site plan review which incorporate consideration of potential water quality impacts including erosion and sediment controls, controls of other wastes, and any other impacts that must be examined according to the requirements of the local ordinance or other regulatory mechanism.
3. Implement and enforce procedures for site inspection and enforcement of control measures including enforcement escalation procedures for recalcitrant or repeat offenders. Document inspection findings and take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure site compliance. At a minimum, site inspection shall be conducted at the frequencies outlined in Table V-5 from the OKR04 permit provided in Appendix B.

E. Post Construction Stormwater Management in New Development and Redevelopment – Assess and modify existing elements, and develop and implement new elements, as necessary, for a program to control stormwater discharges from new development and



redeveloped sites that disturb one acre or more, to reduce the discharge of pollutants into the MS4 to the MEP. Develop and maintain an ordinance or other regulatory mechanism that allows for City enforcement of post-construction controls and the receipt and collection of information, such as stormwater plans and reports, and to enter and inspect private property related to stormwater discharges to the Phase II MS4. Additionally, the program must maintain pre-development runoff conditions and ensure that controls are in place that would prevent or minimize water quality impacts. In summary, this MCM requires the following program goals for all MS4 levels:

1. Implement and enforce ordinance, or other regulatory mechanism, to the extent allowable under state or local law, to require the use of BMPs, with highest preference given to Low Impact Development (LID) techniques and practices, to address post-construction runoff from new development and development projects.
2. Implement and enforce procedures, such as ordinances or other regulatory mechanisms, to ensure adequate long-term operation and maintenance of BMPs that are installed during and left in place after the completion of a construction project. Maintenance may be conducted by the MS4 or by the owner/operator of the BMP(s). For this part, the owner/operator is the party with control over operational and maintenance activities of the BMP(s), including homeowner associations (HOAs), commercial and industrial entities. Owner of individual residential properties, which serve as the owner's primary residence, may be excluded.
3. Review local ordinances, regulations, and engineering plans or specifications to identify any legal/regulatory barriers to LID as well as opportunities to promote LID. Develop a schedule to remove those barriers and implement identified opportunities. If a barrier is not removed or an opportunity is not implemented, provide a justification.
4. Assess current street design, parking lot guidelines, and other requirements that affect the creation of impervious cover and implement additional guidelines or design standards to support LID design options. Provide justification if additional guidelines are not implemented.

F. Pollution Prevention and Good Housekeeping for Municipal Operations – Assess and modify existing elements, and develop and implement new elements, as necessary, for an operation and maintenance program for municipal operations to continue the reduction of discharge of pollutants from the MS4 to the MEP. In summary, this MCM requires the following program goals for all MS4 levels:

1. Maintain and annually update an inventory of all your MS4 operations that are impacted by this program.

2. Maintain and annually update a list of industrial facilities you own or operate that are subject to the OKR05, or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity, that ultimately discharge to the Phase II MS4. Include the authorization number of a copy of the industrial NOI form for each facility.
  3. Implement and enforce procedures for controlling, reducing, or eliminating the discharge of pollutants. At minimum, you must proceed as follows:
    - 1) Require implementation of BMPs, including sediment and erosion controls during
      - Routine maintenance
      - Water line breaks and emergency repairs, and
      - After line breaks, emergency repairs, and routine maintenance have been completed. Stabilization measures shall be implemented within fourteen (14) calendar days of completion.
    - 2) Ensure that vehicles wash waters are not discharged into the MS4 or waters of the State.
  4. Implement and comply with procedures to ensure that new flood management projects are assessed for impacts on water quality.
  5. Any contractor hired to preform maintenance activities on MS4 facilities must be contractually required to comply with all your stormwater control measures, good housekeeping practices and facility-specific stormwater management operating procedures. The MS4 shall provide oversight to ensure these contractual obligations are met.
  6. Implement and enforce procedures for inspection and maintenance of structural and non-structural BMPs, including maintenance activities, maintenance schedules and long-term inspection procedures for controls to reduce floatables and other pollutants discharged to the Phase II MS4. At a minimum, inspections shall be conducted at the frequencies outlined in Table V-6 from the OKR04 permit provided in Appendix B.
- G. Optional Permit Requirements for Municipal Construction Activities - Develop program for construction activities as an alternative to the Phase II MS4 operator seeking coverage under the permit where the City meets the definition of construction site operator. This optional MCM requires development of a detailed plan addressing how the City's construction activities will meet construction stormwater permit requirements. The City has elected not to implement this MCM for this permit term.

### **3.2 Impaired Waters and Total Maximum Daily Load Summary**

In addition to the MCM requirements, the renewed permit describes required actions if a regulated MS4 discharges a pollutant of concern to an impaired water body or discharges into a water body that is part

of a watershed with an approved TMDL, regardless of if the water body itself is impaired. For the administration of this permit, a watershed boundary is considered as it is defined by the TMDL requirements and/or I-Plan. Not all regulated MS4s discharge into an impaired water body, and thus these requirements do not apply to all regulated entities. If a regulated MS4 discharges a pollutant of concern to an impaired water body with an established TMDL, the regulated MS4 must be consistent with the approved TMDL to be eligible for coverage by the OKR04 permit. The TMDL process includes an intensive assessment of the root cause of poor water quality, a determination of the maximum pollutant loading allowable while still meeting water quality use standards, and development of a plan by local stakeholders to remediate pollution sources.

For MS4s discharging a known pollutant of concern into impaired water bodies, their SWMP must include information on the implementation of “targeted controls”, which are activities, practices, or structural controls that focus on reducing the water quality impact of the specific pollutant. For each targeted control, a measurable goal, implementation schedule, and “benchmark” must be established. A benchmark is a quantifiable goal designed to assist in determining if the targeted controls are effective in addressing the pollutant. The exceedance of a benchmark does not indicate a permit violation; it does, however, help in the evaluation of the progress towards reducing pollutant discharges.

Section 4.4 addresses the City’s specific actions to control the discharge of pollutants of concern to impaired waters and evaluate the progress of controlling those pollutants.

### 3.2.1 Impaired Water Bodies

Lake Thunderbird is in rural east Norman and is a major water supply source. According to the Oklahoma Water Quality Standards, beneficial uses listed are warm water aquatic community, agriculture, public and private water supply, primary body contact recreation, and aesthetics. It is also listed as a Sensitive Water Supply. ODEQ issued a TMDL study for the lake in November 2013 due to non-attainment of WQS for turbidity, chlorophyll-a, and dissolved oxygen. The City of Norman submitted a TMDL Compliance and Monitoring Plan, which was approved by ODEQ, and incorporated the requirements of these plans in the Stormwater Management Program.

Little River is in north Norman and flows south east to Lake Thunderbird. The creek is listed on the 303(d) list as impaired for dissolve oxygen, Enterococcus, selenium, and total dissolves solids.

Rock Creek is in east Norman and flows northeast into Little River and Lake Thunderbird. The creek is listed on the 303(d) list as impaired for Enterococcus and E. coli.

The Canadian River flows along the south border of the Norman city limits and receives the majority of stormwater runoff from the urbanized area. The cause of water quality impairment for the Canadian River according to the 2020 Oklahoma Integrated Water Quality Assessment 303(d) list is enterococcus and pH. The Canadian River is also listed as an Aquatic Resource of Concern due to the presence of a threatened species, the Arkansas River shiner (*Notropis girardi*).

Bishop Creek is in the central Norman urbanized area and flows south into the Canadian River. The creek is listed on the 303(d) list as impaired due to fish bioassessments.

Merkle and Brookhaven Creeks are in the central Norman urbanized area and flows south to the Canadian River. These creeks are on the 303(d) list as impaired due for benthic macroinvertebrates.

**Table 2. Water Quality Summary of Receiving Waters**

WATER BODY	WATERBODY ID	IMPAIRMENT
Brookhaven Creek	OK520610010205_00	Benthic macroinvertebrates
Merkle Creek	OK520610010200_00	Benthic macroinvertebrates
Bishop Creek	OK520610010180_00	Fish bioassessments
Bishop Creek, unnamed tributary	OK520610010181_00	Fish bioassessments
Canadian River	OK520610010010_05	Enterococcus, pH
Little River	OK520800020010_00	Enterococcus
Little River	OK520810000080_00	Dissolved oxygen, Enterococcus, Selenium, total dissolved solids
Rock Creek	OK520810000090_00	Enterococcus, E. coli
Lake Thunderbird	OK520810000020_00	Chlorophyll a, dissolved oxygen, turbidity

### 3.2.2 Water Quality Standards

WQS for the beneficial uses listed in Section 3.2.1 above can be found in OAC 785:45-5-10 (Public and Private Water Supplies), 785:45-5-12 (Fish and Wildlife Propagation), OAC 785:45-5-13 (Agriculture: Livestock and Irrigation), OAC 785:45-5-17 (Secondary Body Contact Recreation), and OAC 785:45-5-19 (Aesthetics).

### 3.2.3 Discharges to Impaired Water Bodies

Potential sources of these pollutants are stormwater runoff from the urbanized area of the City from application of lawn care chemicals and fertilizers, construction activity, pet waste and other impervious

surfaces. The primary means of control of discharges containing pesticides and nutrients to the MS4 will be by a public education/involvement program to inform the public about adverse environmental impacts from overuse and misuse of these chemicals. Information on the proper use, reduction, and safe alternatives for these chemicals will also be distributed to the community. The main effort to control the discharge of organic pollutants to the MS4 will be through the detection and elimination of illicit domestic sewage discharges to the MS4.

### **3.3 Program Development Summary**

Existing City programs and activities that protect the City's stormwater quality were identified and are included in the SWMP as applicable. These programs and activities will be supplemented with several new BMPs to provide additional protection of stormwater quality as required by the OKR04 permit.

An implementation schedule and measurable goals to track the implementation progress have been developed for each of the BMPs in this SWMP. Each BMP was selected based on the projected effectiveness in protecting stormwater quality and its ability to aid in compliance with permit conditions.

The implementation schedule and measurable goals were selected so new stormwater program activities will be steadily phased in over the permit term. The City will review the implementation progress each year and modify the SWMP as necessary.

The BMP Activities and Documentation List (Appendix A) is designed to summarize all activities within the SWMP. It identifies each BMP with activity descriptions, how it meets specific permit requirements, responsible City departments, measurable goals, implementation schedules, and documentation needs over the five-year permit period. Appendix B lists the BMPs by permit requirement. The subsequent appendices provide reference material and help serve as a toolbox to keep the SWMP updated as required. Section 4 details the SWMP development process.

## 4.0 COMPLIANCE APPROACH

The City developed this SWMP to comply with OPDES requirements for stormwater discharges and certain non-stormwater discharges. The SWMP is intended to aid in the City's efforts to reduce stormwater pollutants from the City's storm sewer system to the MEP as required by the OKR04 permit.

The SWMP describes specific actions that will be taken over this permit term to reduce pollutants and protect the City's stormwater quality. The specific activities to be implemented are referred to as BMPs. Various BMPs have been developed for each of the required MCMs. The SWMP also sets measurable goals and provides a schedule for the implementation of the BMPs. Implementation of the selected BMPs is expected to result in a reduction of pollutants discharged into City's streams, ponds, and lakes.

The BMP Activities and Documentation List (Appendix A) has been developed to demonstrate compliance in one location with descriptions, measurable goals, implementation and maintenance schedules, and documentation needs for the BMPs the City as implemented or will implement. Appendix A will serve as the summary of written procedures describing how the permittee will implement the provisions in Parts V and VI of the OKR04 permit. In addition to Appendix A, the City will develop specific compliance guidance for the day-to-day operations of its SWMP. The compliance guidance documentation will provide greater specificity for the activities the City will conduct to address the compliance requirements and the documentation that will be maintained to demonstrate compliance through the annual report.

The City will annually review the SWMP and the implementation procedures for MCMs 1 through 4 and update as necessary. Refer to Section 5.3 Program Updates for the identification of all applicable reporting requirements related to Notice of Change (NOC).

### 4.1 Best Management Practice Selection Process

The City assessed existing program elements set forth in the previous permit, modified as necessary, and developed and implemented necessary new elements to continue reducing the discharge of pollutants from the MS4 to the MEP. As a result, BMPs described in the previous permit were kept, modified, or replaced, as necessary.

#### 4.1.1 Assessment of Existing BMPs

The City has historically implemented various BMPs intended to protect stormwater quality. An important aspect of developing an effective, compliant, and cost efficient SWMP is to account for the existing programs that are efficiently benefitting water quality. Likewise, a successful SWMP involves modifying or eliminating inefficient or ineffective existing BMPs. As such, one of the initial steps of the assessment process, which included meetings with staff from City departments, involved modifying or eliminating BMPs.

#### 4.1.2 Identification of Additional BMPs

The second step identified additional BMPs that would meet requirements of the permit and protect water quality to the MEP. Additional BMPs were selected to supplement the City's existing programs and to satisfy unmet requirements of the OKR04 permit. The additional BMPs were evaluated based on their ability to meet at least one, and preferably several, of the MCM requirements.

The evaluation process involved researching a variety of sources of BMPs, such as regulatory agencies, industry associations, and private enterprises. Some of the additional BMPs were selected directly from standard BMP "toolboxes" available from the EPA, while others were tailored to the specific needs of the City. Each BMP considered was evaluated based on the following criteria:

- Which of the minimum control measure requirements does the BMP meet?
- How does the BMP fit into the City's existing goals, operations, and activities?
- What is the anticipated effectiveness of the BMP?
- What is the general cost range to implement the BMP?

Specific costs for the BMPs were not identified during the development of this SWMP; however, BMPs with significant investment requirements and relatively minor stormwater quality benefit were not selected. More detailed budget requirements will be evaluated, as needed, during the implementation of the BMP.

## 4.2 Selection Process for Measurable Goals and Implementation Schedule

Specific measurable goals have been developed for each BMP. In accordance with the permit requirements, measurable goals have been developed to evaluate the success of the City's SWMP toward reaching the goal of protecting water quality and reducing pollutants to the MEP. Goals were selected with a consideration toward achieving steady implementation, assessing the ability to measure and track

progress, and working within budgetary constraints. In general, measurable goals for existing BMPs monitor the effectiveness of the BMP, whereas measurable goals for new BMPs monitor their implementation progress.

The ODEQ has authorized the steady implementation of new BMPs over a multi-year period. For new BMPs, the first year of the permit program is largely dedicated to identifying the approach to implement each activity. The second through fifth years focus on implementation, evaluating the effectiveness of existing BMPs, and tracking the implementation of new BMPs. For existing BMPs, the first year of the permit term is largely dedicated to continuing and evaluating the existing activities.

#### **4.3 Measurable Goal Evaluation Process**

The selected measurable goals for each BMP will be evaluated on an annual basis. Implementation of each BMP will be tracked as appropriate during each permit year to provide documentation of the BMP activities. Relative success at achieving the measurable goals, as well as an assessment of the effectiveness of each BMP, will also be evaluated on an annual basis.

Multiple City departments are responsible for implementing portions of the SWMP and for tracking and evaluating the City's success in meeting the program's measurable goals. Each City department with activities or responsibilities that may impact stormwater quality will maintain documentation showing progress towards meeting the annual measurable goals for each BMP and make this information available to the person designated for SWMP coordination.

#### **4.4 Targeted Controls for Impaired Water Bodies**

As summarized in Section 2.2 and Table 1, the City's MS4 discharges stormwater to impaired water bodies and within the Lake Thunderbird TMDL. Therefore, the SWMP is required to include focused BMPs with corresponding measurable goals related to Part II.D.4. of the OKR04 permit (Impaired Water Bodies and TMDL Requirements) as included in the BMPs identified in Appendix A.

The City continues to implement a TMDL Compliance Plan and TMDL Monitoring Plan for the Lake Thunderbird watershed to assess if the MS4 discharges are a source of the pollutant of concern, and if so, identify targeted controls, measurable goals, and benchmarks for addressing the pollutant consistent with the permit requirements.



#### **4.5 Legal Authority and Regulatory Mechanism**

The City, in accordance with the OKR04 permit conditions of Part V, Section A, will review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or adopt a new ordinance(s) or other regulatory mechanism(s) that provide the City with adequate legal authority to control pollutant discharges into and from its Phase II MS4 to meet the requirements of this general permit. The City's legal authority will be reviewed to address the following:

1. Authority to prohibit illicit discharges and illicit connections;
2. Authority to respond to and contain other releases – Control the discharge of spills, and prohibit dumping or disposal of materials other than stormwater into the Phase II MS4;
3. Authority to require compliance with conditions in the City's ordinances, permits, contracts, or orders;
4. Authority to require installation, implementation, and maintenance of control measures;
5. Authority to receive and collect information, such as stormwater plans, inspection reports, and other information deemed necessary to assess compliance with this permit, from operators of construction sites, new or redeveloped land, and industrial and commercial facilities;
6. Authority, as needed, to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the Phase II MS4;
7. Authority to respond to non-compliance with BMPs required by the Phase II MS4 consistent with their ordinances or other regulatory mechanism(s);
8. Authority to assess penalties, including monetary, civil, or criminal penalties; and
9. Ability to enter into interagency or interlocal agreements or other maintenance agreements, as necessary.

#### **4.6 Allowable Non-Stormwater Discharges**

The following non-stormwater discharges were assessed and determined not to be significant contributors of pollutants to the City's water bodies:

1. Diverted stream flows;
2. Uncontaminated discharges from riparian areas and wetlands;
3. Uncontaminated ground water or spring water;
4. Residential building wash water that does not use detergents, solvent, and/or soaps;
5. Uncontaminated pumped ground water;
6. Uncontaminated ground water infiltration;
7. Uncontaminated discharges from potable water sources including water line flushing and fire hydrant flushing;

8. Foundation drains;
9. Air conditioning condensate;
10. Water from crawl space pumps;
11. Footing drains;
12. Residential, non-commercial, and charity car washing;
13. Uncontaminated and dechlorinated swimming pool discharges that do not violate WQS;
14. Street wash water, including wash water generated from the washing of other impervious surfaces such as sidewalks and parking lots, that does not use detergents, solvents, and/or soaps;
15. Discharge in compliance with a separate OPDES or NPDES permit;
16. Discharges of gray water from municipal splash pads (aka, spray parks or spray grounds), as defined in 27A O.S. § 2-6-107, unless otherwise permitted or regulated by DEQ, provided the discharges comply with all applicable municipal or county ordinances enacted pursuant to law (discharge from recirculating systems shall be dechlorinated; and
17. Discharge or flows from emergency firefighting activities or training activities that are not taking place at a permanent facility, provided procedures are in place for the Incident Commander, Fire Chief, or another on-scene firefighting official in charge to make an evaluation regarding potential releases of pollutants from the scene.

Any individual non-stormwater discharge that is determined to be a significant contributor of pollution to the City is prohibited.

## **5.0 RECORDKEEPING AND REPORTING**

### **5.1 Recordkeeping**

The City will maintain all records, a copy of the OKR04 permit and all data used to complete the NOI for this permit, for a period of at least three years, or for the term of this permit, whichever is longer. A current, up-to-date copy of the SWMP and a copy of the general permit requirements will be maintained at City offices.

Additionally, the City will make the compiled records, including the NOI and SWMP, publicly accessible through posting on the City's website. The City will post the NOI and SWMP on the website. For changes to the SWMP requiring public notice, the City will post the Director's preliminary determination of the Notice of Change (NOC) and the revised terms of the SWMP on the City's website per the specifications outlines in Section 5.3.

## 5.2 Annual Report

The City will submit an annual update report to the ODEQ Water Quality Division. The annual report must be submitted by October 31<sup>st</sup> of the following fiscal year since the SWMP was implemented on a fiscal year basis (July 1<sup>st</sup> through June 30<sup>th</sup>).

The annual report will summarize the City's actions to address the requirements listed in the OKR04 permit. Generally, the annual report will document the stormwater-related activities for the previous year, evaluate and analyze the success of each BMP and targeted controls relative to their measurable goals, and discuss plans for the upcoming year, including modifications to the SWMP. Modifications may include replacement of BMPs, alteration of the implementation schedule, or other changes allowed by the permit.

## 5.3 Program Updates

This program may be updated by the City at any time. When considering eliminating a BMP, the information in Appendix A is recommended to be reviewed to determine if the removal of the BMP will result in non-compliance for any of the MCMs. This would occur, for example, if the BMP is the only BMP that provides compliance for a specific permit provision. In such a case, the BMP would need to be replaced with a new BMP that continues to meet the relevant permit requirement.

## 5.4 Reference Material

Several sources of information are available for use in the maintenance and update of the SWMP. Each of these resources are recommended for additional information about alternative BMP options.

- The EPA has developed an electronic stormwater management BMP Toolbox specifically for use by Phase II MS4 regulated entities. It contains a list of BMPs for each minimum control measure. It can be accessed at: <https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>.
- The Center for Watershed Protection offers a good resource for publications and on-line documentation regarding stormwater quality at <http://www.cwp.org/>.

## 6.0 DEFINITIONS

The following are definitions to key words or phrases that are used throughout this SWMP. The definitions are taken directly from the renewed OPDES General Permit No. OKR04.

**Aquatic Resource of Concern (ARC)** is a waterbody which contains habitat for federally listed (by the U.S. Fish and Wildlife Service) or state listed (by the Oklahoma Department of Wildlife Conservation) endangered or threatened aquatic species.

**Best Management Practice (BMP)** is the schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Construction Site Operator** means, for the purpose of this permit and in the context of stormwater associated with construction activity, any party or parties associated with a construction project that meets either or the following criteria:

1. The party must have operational control over construction plans and specifications, including that ability to make modifications to those plans and specifications (e.g., owner)
2. The party must have day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution plan (SWP3) for the site or other permit conditions (e.g., general contractor of the property).

In addition, "owner" refers to the party that owns the structure being built. Ownership of the land where construction is occurring does not necessarily imply the property owner is an operator (e.g., a landowner whose property is being disturbed by construction of a gas pipeline or a landowner who allows a mining company to remove dirt, shale, clay, sand, gravel, etc. from a portion of his property) This definition is provided to inform permittees or DEQ's interpretation of how the regulatory definitions of "operator" and "facility or activity" are applied to discharges of stormwater associated with construction activity.

**Control Measure** refers to any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the state.

**Clean Water Act (CWA)** [33 U.S.C. 1251 et seq.] (formerly referred to as the Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended, Pub. L. 95-211, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117.

**Director** means the Executive Director, chief administrator, or an authorized representative of the Department of Environmental Quality.

**Discharge**, when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR § 122.2.

**Illicit Discharge** is defined at 40 CFR § 122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not composed entirely or stormwater, except discharges authorized under an OPDES or NPDES permit (other than the OPDES permit for discharges from the MS4) and discharges resulting from firefighting activities.

**Impaired Water** is a water which does not meet one of more of its beneficial uses due to not attaining applicable narrative or numeric water quality standards. Impaired waters are identified in the CWA section 303(d) listing from Appendix C of the most recent Integrated Report. Impaired waters include both waters with approved established TMDLs, and those for which TMDL has not yet been approved or established.

**Large Common Plan of Development or Sale** means an area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. This plan consists of many small construction projects that collectively add up to one or more acres of total disturbed land. For example, an original common plan of development of a residential subdivision might lay out the streets, house lots, and areas for parks, schools, and commercial development that the developer plans to build or sell for development. All these areas would remain part of the commercial plan of development or sale until the intended construction is completed.

**Low Impact Development (LID)** is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing, effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product.

**Maximum Extent Practicable (MEP)** – is the technology-based discharge standard for Municipal Separate Storm Sewer Systems (MS4s) to reduce pollutants in stormwater discharges that was established by section 402(p) of the CWA, 33 U.S.C. § 1342. Maximum extends practicable for this permit is detailed in Part V.C.

**Municipal Separate Storm Sewer System (MS4)** is used to refer to either Large, Medium, or Small Municipal Separate Storm Sewer System. The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Oklahoma City MS4 includes MS4s operated by Oklahoma City, the Oklahoma Department of Transportation, and others). The term MS4 is defined at 40 CFR § 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is/are:

1. Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal or 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 section 208 of the CWA that discharges to waters of the United States;
2. Designed or under collection or conveying stormwater;
3. Not combined sewer; and
4. Not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR § 403.3(q).

**Newly Regulated Phase II (Small) MS4** – refers to a small MS4 newly designated as a result of US census data or other new information, and thus required to be covered under OPDES permit.

**Notice of Intent (NOI)** is the mechanism used to “register” for coverage under a general permit.

**Non-traditional MS4** means state and federal prisons, office complexes, hospitals, state transportation agencies, universities, public housing, authorities, schools, and other special districts.

**Notice of termination (NOT)** is the mechanism used to terminate coverage under a general permit.

**Outstanding Resource Waters (ORW)** are designed as such in Oklahoma’s Water Quality Standards under OAC 785:45-3-2(a).

**Phase II (Small) MS4** is defined at 40 CFR § 122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a state, city, town, 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 a designated and approved management agency under section 208 of the CWA that discharges to waters of the state, but is not defined as a “large” or “medium” municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital, or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

**Phase II (Small) MS4 Newly Designated after the Date of Permit Issuance** refers to a small MS4 newly designated by EPA or DEQ after the date of this permit issuance.

**Pollutant of Concern (POC)** is a pollutant which causes or contributes to a violation of a water quality standard, including a pollutant, which is identified as causing an impairment in the latest 303(d) list, a TMDL report, or watershed plan.

**Quality Assurance Project Plan (QAPP)** is a document that outlines the procedures that those who conduct a monitoring project will take to ensure that the data they collect and analyze meets project requirements.

**Stabilization** is the process of covering exposed ground surfaces with vegetative or non-vegetative practices that reduce erosion and prevent sediment discharge from occurring.

**Stormwater** is defined at 40 CFR § 122.26(b)(13) and means stormwater runoff, snow melt runoff, and surface runoff and drainage.

**Stormwater Management Program (SWMP)** refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system (MS4).

**Total Maximum Daily Load (TMDL)** refers to the sum of the individual wasteload allocations (WLA) for point sources, safety, reserves, and loads from nonpoint sources and natural background.

**Urbanized Area (UA)** is defined by the U.S. Census Bureau. The Census Bureau’s urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. The Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data. The Census Bureau identifies an urbanized area as an area with 50,000 or more people.

“You” and “Your,” as used in this permit, is intended to refer to the permittee, operator, or discharger, as the context indicates, and the party’s responsibilities (e.g., the city, the county, the flood control district, the U.S. Air Force, etc.).

**Waters of the State** means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, storm sewers and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof. Provided waste treatment systems, including treatment ponds or lagoons designed to meet federal and state requirement other than cooling ponds as defined in the CWA or rules promulgated thereto, and prior converted cropland are not water of the state [27A O.S. § 1-1-201(20)].

**Wasteload Allocation (WLA)** is the fraction of the total pollutant load apportioned to all point sources and includes stormwater discharges regulated as point sources which are identified in the TMDL as WLA\_MS4.

Appendix A  
BMP Activities and Documentation List

"You" and "Your" as used in this permit is intended to refer to the permittee, operator, or discharger, as the permit holder, and the party responsible for, the city, the county, the flood control district, the U.S. Air Force, etc.

Water of the State means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, storm sewers and all other bodies or accumulation of water, surface and underground, natural or artificial, public or private, which are contained within flow through or border upon this state or any portion thereof, provided water treatment systems, including treatment ponds or lagoons designed to meet federal and state requirements, then existing ponds as defined in the CWA or rules promulgated thereunder, and other covered ground and surface water of the state (32A O.S. § 1-3-20(12))

Wasteload Allocation (WLA) is the fraction of the total pollutant load apportioned to all point sources and included stormwater discharges regulated at point sources which are identified in the TMDL as WLA\_MSD

## Appendix A BMP Activities and Documentation List



**Appendix B  
OPDES Small MS4 General Permit**

**Appendix C  
Notice of Intent (NOI) and General Permit Authorization**

**Appendix D  
Notice of Change (NOC) Documentation**

**Appendix E  
Year 1 Annual Report**

**Appendix F  
Year 2 Annual Report**

**Appendix G  
Year 3 Annual Report**

**Appendix H**  
**Year 4 Annual Report**

**Appendix I  
Year 5 Annual Report**