Phase II
Stormwater Management Program
(SWMP)

for

City of Warr Acres, Oklahoma

2024

Revised per DEQ October 15, 2024 Review Comments Letter

SIGNATURES OF RESPONSIBLE OFFICIALS

for the City of Warr Acres, Oklahoma

Per OKR04 Part VI.H, the following certification is hereby made in order to comply with the signatory requirements of the State of Oklahoma's Phase II Stormwater General Permit for Small Municipalities (OKR04).

I certify under penalty of Jaw that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mayor — Date: 4-1-24

Treasurer/City Clerk — Date: 4-1-24

Stormwater Manager/Designee — Date: 4-1-24

EXECUTIVE SUMMARY

The City of Warr Acres has prepared this Stormwater Management Program (SWMP) document which provides descriptions of all activities that will be conducted on behalf of the City of Warr Acres to meet its obligations under the Oklahoma Department of Environmental Quality (ODEQ) General Permit for Phase II Small Municipal Separate Storm Sewer System Discharges Within the State of Oklahoma (OKR04), having an effective date of June 1, 2021.

Copies of this SWMP will be kept in-house for review by ODEQ upon request. Per OKR04 Part IV.A, this SWMP document will be kept up to date during the term of the permit. Interim progress will be made in developing and implementing program elements during the term of the permit.

All six Minimum Control Measures (MCMs) have been addressed in this SWMP. In addition, the City of Warr Acres has elected not to participate in the "Optional Permit Requirements for Municipal Construction Activities" (OKR04 Part VIII).

Each MCM has a number of Best Management Practices (BMPs) that constitute the core activities pertaining to each MCM. Appendices summarize the BMPs and provide Measurable Goals for each BMP, along with activity descriptions and implementation schedules. In addition, the SWMP text provides additional information about the MCMs.

Every reasonable effort has been made to comply with all requirements in the State's OKR04 General Permit for Small Municipal Separate Storm Sewer Systems (SMS4s). This SWMP document will be amended as needed to reflect program and implementation changes per requirements of ODEQ and the OKR04 permit.

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PHASE II STORMWATER MANAGEMENT PROGRAM

I. INTRODUCTION

In 1990 the U.S. Environmental Protection Agency (EPA) promulgated regulations for establishing water quality based municipal stormwater programs to address stormwater runoff from certain industrial and construction activities and from medium and large Municipal Separate Storm Sewer Systems (MS4s) serving populations of 100,000 or greater. These "Phase I" regulations were incorporated into the existing National Pollutant Discharge Elimination System (NPDES) permit rules that address point source dischargers. As a result, urban nonpoint source runoff became regulated as point source discharges. On December 8, 1999, EPA published final "Phase II" stormwater regulations that addressed urban stormwater runoff from cities under 100,000 population and counties that lie within the Urbanized Area (UA) as designated by the latest US Bureau of Census. Phase II permits were also required for certain non-UA cities designated by the Oklahoma Department of Environmental Quality (ODEQ).

The 1999 EPA Phase II regulations required that all permitted cities and counties must develop a comprehensive Stormwater Management Program (SWMP) that addresses six "Minimum Control Measures" (MCMs). These are:

1. *Public Education and Involvement*
2. *Industrial Stormwater Runoff Control*
3. *Illicit Discharge Detection and Elimination*
4. *Construction Site Stormwater Runoff Control*
5. *Post Construction Management in New Development and Re-Development*
6. *Pollution Prevention and Good Housekeeping for MS4 Operations*

The ODEQ has primary jurisdiction over permitting and enforcement of the Phase II Stormwater Program for Oklahoma. On February 8, 2005, the ODEQ finalized the first General Permit for Phase II Small Municipal Separate Storm Sewer System Discharges Within the State of Oklahoma (OKR04). On October 1, 2015 ODEQ reauthorized OKR04 with an effective date of November 1, 2015 and reauthorized again June 1, 2021. The revised OKR04 permit reflects new requirements from EPA and the latest practices for controlling urban stormwater pollution.

OKR04 requires that each permittee submit a Notice of Intent (NOI) to apply for coverage and develop a Stormwater Management Program (SWMP) document that specifies, for each MCM, what activities will be performed as Best Management Practices (BMPs), along with BMP implementation schedules and Measurable Goals.

This SWMP document fulfills the OKR04 General Permit requirement to prepare a detailed plan of how the City of Warr Acres will address non-stormwater discharges within its permitted MS4 and Urbanized Area.

II. SWMP OVERVIEW AND SPECIAL REQUIREMENTS

II.A Regulatory Authority

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq.) as required under Section 122.34(d)(2) of the Storm Water Phase II Rule, and with the provisions under the Oklahoma Pollutant Discharge Elimination System, OAC 252:606-1-3(b)(3) incorporating by reference 40 CFR §122.26 and 122.30 through 122.35, operators of Small Municipal Separate Storm Sewer Systems (SMS4s) are authorized to discharge in accordance with the conditions and requirements set forth in the OKR04 permit and this SWMP. The Phase II regulations issued by the EPA can be found in FR Vol. 64 No. 235, December 8, 1999, beginning on page 68722, and became effective on February 7, 2000.

The 2021 OKR04 General Permit is a reissuance by the ODEQ with an effective date of June 1, 2021. The OKR04 General Permit and the authorization to discharge shall expire May 31, 2026. As provided in the permit, operators of SMS4s who submit a Notice of Intent (NOI) and a description of their Storm Water Management Program (SWMP) in accordance with PART IV of the general permit are authorized to discharge pollutants to waters of the State in accordance with the conditions and requirements set forth in the general permit.

The OKR04 permit authorizes discharges of storm water and certain non-storm water discharges from SMS4s, as defined in OAC 252:606-1-3(b)(3) incorporating by reference 40 CFR §122.26(b)(16). This includes MS4s designated under 40 CFR §122.32(a)(1) and 40 CFR §122.32(a)(2) that describes the referenced area with a population of at least 10,000 but not exceeding 100,000, and SMS4s located in Urbanized Areas (UA). Other operators of SMS4s located outside of a UA have also been designated by ODEQ as a regulated MS4.

This SWMP document specifies all of the actions that the City of Warr Acres will take to comply with the stormwater regulations and address the six “Minimum Control Measures” required by EPA and OKR04 for a successful stormwater program.

All information contained in this SWMP represents a good faith effort on the part of the City of Warr Acres to comply with all requirements of the ODEQ’s Phase II General Permit for Small MS4s (OKR04). Per Parts V.A and V.D of OKR04, this SWMP will be reviewed annually and amended, as needed, to provide greater efficiency and for meeting additional requirements that may be forthcoming under OKR04 or from other regulatory changes.

II.B SWMP Organization

This SWMP addresses all elements of the ODEQ's General Permit for MS4s (OKR04). The six Minimum Control Measures from OKR04 Part V.C are addressed in the SWMP Section III. Appendix A is a summary table of all BMPs to be used in the City of Warr Acres's program, including year-by-year schedules of implementation and Measurable Goals for each BMP. Appendix B documents the endangered species protection determination for the City of Warr Acres. Section II.K of the SWMP provides a Plan of how the City of Warr Acres will address the impairments of 303(d) listed waterbodies within the MS4. Section II.L of the SWMP discusses how the requirements under Total Maximum Daily Load (TMDL) studies or Watershed Plans within the MS4 area will be met by the permittee. Appendix C contains a map of the MS4 boundaries for the City of Warr Acres. The map also shows the Waters of the State, 303(d) waterbodies, ARC waterbodies, and completed TMDL waterbodies that are within the MS4.

II.B Authorized Allowable Non-Stormwater Discharges – OKR04 Part II.B

The City of Warr Acres has determined that the following non-storm water sources are not substantial contributors of pollutants to the MS4 or result from activities to protect public health and safety and are therefore allowed (see assessment summary table below):

a. Diverted stream flow;
b. Uncontaminated discharges from riparian areas and wetlands;
c. Uncontaminated ground or spring water;
d. Residential building wash water that does not use detergents, solvents and/ro soaps;
e. Uncontaminated pumped ground water;
f. Uncontaminated ground water infiltration;
g. Uncontaminated discharges from potable water sources, including water line flushing;
h. Foundation drains;
i. Air conditioning condensate;
j. Water from crawl space pumps;
k. Footing drains;
l. Residential, non-commercial and charity car washing;
m. Landscape irrigation and lawn watering; provided all pesticides, herbicides and fertilizers have been applied with manufacturers' instructions;
n. Uncontaminated and dechlorinated swimming pool discharges;

o. Street, sidewalk, parking lot wash water that does not contain detergents, solvents or soaps;

p. Discharges in compliance with a separate Oklahoma Pollutant Discharge Elimination System **(**OPDES) or National Pollutant Discharge Elimination System (NPDES) permit;

q. Unless otherwise permitted or regulated by DEQ discharges of gray water from municipal splash pads (aka, spray parks or spray grounds) as defined in Oklahoma Statutes §27A-2-6-107 provided the discharges comply with all applicable municipal or county ordinances enacted pursuant to law, Discharges from recirculating systems shall be de-chlorinated prior to discharge; and

r. Discharges or flows from emergency firefighting activities provided procedures are in place for the Incident Commander, Fire Chief, or other on-scene firefighting official in charge to make an evaluation regarding potential releases of pollutants from the scene. Measures must be taken to reduce any such pollutant releases to the maximum extent practicable subject to all appropriate actions necessary to ensure public health and safety. These procedures must be documented in your SWMP. Discharges or flows from firefighting training activities are not authorized by this Permit.

Firefighting Activities: The local incident commander at the firefighting scene will report to the City of Warr Acres Mayor or Stormwater Coordinator any observed releases of chemicals into the MS4 and/or waterbodies. If local remediation is possible, the following will be implemented by Warr Acres Fire Department. The local remediation will consist of deploying absorbents, chemical neutralizers and/or booms and water skimmers to contain, neutralize and/or remove the chemicals. If the release is beyond the capability of local resources to safely and effectively remediate, then the City of Warr Acres will contact Oklahoma County Emergency Management, or other emergency response agency with which City of Warr Acres has entered into an inter-local agreement or other contract, for large-scale hazardous waste remediation.

The list of occasional, incidental, allowable non-stormwater discharges will be periodically reviewed by the City of Warr Acres and updated, as needed, in this SWMP. Any local controls or discharge conditions required by the City of Warr Acres on these incidental discharges will also be placed in this SWMP. The following table summarizes the assessments made by the City of Warr Acres for each of the allowable non-stormwater discharges.

ALLOWABLE DISCHARGE	SAFETY (1)	IMPACT (2)	NATURAL (3)	PERMIT (4)
a. Diverted stream flows	X		X	
b. Discharges from riparian areas and wetlands			X	
c. uncontaminated ground or spring water			X	
d. Residential building wash water, no detergents		X		
e. Uncontaminated pumped ground water		X	X	
f. Uncontaminated ground water infiltration			X	
g. Discharges from potable water sources	X			
h. Foundation drains	X			
i. Air conditioning condensate		X		
j. Water from crawl space pumps	X			
k. Footing drains	X			
l. Non-commercial or charity car washes		X		
m. Lawn watering		X		
n. De-chlorinated swimming pool discharges		X		
o. Street wash water	X			
p. Discharges with a OPDES or NPDES permit				X
q. Gray water from municipal splash pads	X	X		
r. Discharges or flows from emergency firefighting	X			

(1) Overriding public health and safety concerns make this allowable.
(2) Flow or source is intermittent or small; not considered to be a significant source.
(3) Flow from natural processes, mostly intermittent; not considered a significant source.
(4) Authorized and allowed under another OPDES or NPDES permit.

II.C Historic Preservation – OKR04 Part II.D

The Oklahoma DEQ's OPDES permitting activities are not Federal undertakings and, therefore, are not subject to review under Section 106 of the National Historic Preservation Act. However, applicants and permittees must comply with the Oklahoma State Register of Historic Places Act *(53 O.S. § 361)*, where applicable, and the Burial Disturbance Law *[21 Oklahoma Statutes (O.S.) §§ 1168.0-1168.6)*, as well as with any applicable local laws concerning the identification and protection of historic properties.

OKR04 permittees who receive Federal funding or other Federal assistance in the completion of their OKR04-related projects may have to comply with Section 106 of the Historic Preservation Act. For information about the Section 106 review process in Oklahoma, Oklahoma properties

listed on or eligible for the National Register of Historic Places, and related topics, the following shall be contacted**:**

State Historic Preservation Office
(contact info listed in Part I.D of the OKR04 permit)

Oklahoma Archeological Survey
(contact info listed in Part I.D of the OKR04 permit)

The City of Warr Acres will comply with OKR04 Part II.D (Historic Preservation) whenever permit related activities require such action. This will include communications with the State Historic Preservation Office and Oklahoma Archeological Survey to discuss what actions the City of Warr Acres may have to take to comply with rules governing preservation of historical sites and resources, including compliance with the Oklahoma State Register of Historic Places Act and the Burial Disturbance Law of Oklahoma. It is understood that normal OKR04 permit-compliance actions taken by the City of Warr Acres under OKR04 do not require Section 106 review under the National Historic Preservation Act.

II.D Meeting Eligibility Criteria for Endangered Species – OKR04 Part II.E

The City of Warr Acres has reviewed the eligibility criteria and requirements of OKR04's Part II.E and has determined that no part of the City of Warr Acres's MS4 lies within areas of Aquatic Resources of Concern (ARC) as shown on the Exhibit 1 map in OKR04. Accordingly, Criterion A has been specified in Item 7 of the NOI Form.

OKR04 Part II.E.2.c requires that: "*The information used to make the eligibility determination must be documented and included as part of the SWMP."* Appendix B provides the methods and documentation of the assessment used by the City of Warr Acres to select Criterion A.

II.E Information on the MS4 – OKR04 Part III.B.2

Urbanized Area (UA) or Core Municipality: For permitted cities, the MS4 is all of the area within the city corporate boundaries. For counties, only the Urbanized Area (UA) within county unincorporated areas as defined by the 2020 US Bureau of Census is the permitted MS4 area. Appendix C contains a map of the City of Warr Acres's MS4 area. The following latitude-longitude coordinates are of the City of Warr Acres's approximate MS4 center, at the intersection of NW 50th Street and North MacArthur Blvd:

Latitude: 35° 31' 20" N
Longitude: – 97° 37' 8" W

Names of Major Receiving Waters: The City of Warr Acres's MS4 discharges to the following major receiving waters; the table notes the designations of 303(d), ORW, TMDL and ARC for each:

Waterbody Name	WBID (1)	303(d) (2)	ORW (3)	TMDL (4)	ARC (5)
Deep Fork	None	No	No	No	No
Spring Creek	None	No	No	No	No
Lake Hefner	OK620910040200_00	Yes	No	No	No

(1) WBID = Waterbody ID identifier, used by ODEQ and other agencies in Oklahoma.
(2) 303(d) = Waterbody is on the 2014 303(d) list of impaired waterbodies.
(3) ORW = Waterbody is listed by the OWRB as an Outstanding Resource Water.
(4) TMDL = Waterbody has a completed and EPA/ODEQ approved TMDL study.
(5) ARC = Aquatic Resources of Concern; see ARC list and map in OKR04 Exhibit 1.

303(d) and Completed TMDL Waterbodies: The City of Warr Acres has reviewed the latest lists of waterbodies from ODEQ within its MS4 boundaries that have 303(d) impairment and/or completed Total Maximum Daily Loads (TMDLs). The table above lists which of the major receiving waters are listed as 303(d) impaired, have a completed TMDL, are designated as Aquatic Resources of Concern (ARC), or are listed as Outstanding Resource Waters (ORW). The SWMP describes how each of these special conditions will be addressed by the City of Warr Acres.

II.F Relying on Another Government Entity – OKR04 Part V.A.5

OKR04 Part V.A.5 requires that the permittee indicate if "*another government entity already regulated under the stormwater regulations*" will be relied upon to "*satisfy one or more of your permit obligations*". Part V.A.5 requires written acceptance if "*another governmental entity*" will implement "*one or more of your stormwater MCMs*", but does not apply to implementing individual BMPs. Part VI.C.1.i (regarding Annual Report contents) requires a written agreement with "*another government entity*" if you are relying on them "*to satisfy some of your permit obligations*".

The City of Warr Acres herein indicates in the table below all entities with whom we are working collaboratively. Appendix D contains copies of all written agreements from the entities identified below to accomplish MCMs and BMPs on behalf of the City of Warr Acres.

OKR04 Part V.A.5: Another Government Entity Reported in Annual Report:

Government Entity	Permit Obligations to be Completed by Entity
None	NA

II.G Certification of Compliance with Part III – OKR04 Part II.B.2.c

The City of Warr Acres hereby certifies compliance with all Part III requirements by taking the actions as stated in the various parts of this signed SWMP. This certification declaration is required to be made under OKR04 Part II.C.

II.H Co-Permittees – OKR04 Part III.D

The City of Warr Acres has elected not to share OKR04 compliance with another entity as a co- permittee.

II.I Compliance with Water Quality Standards - OKR04 Part III.A

OKR04 Part IV.A.1 has seven action items (1.a through 1.h) that must be addressed in the SWMP to protect 303(d) listed waters. These are covered in Section II.K of the SWMP and are referenced by their OKR04 Parts. Appendix C contains a map of the MS4 including the locations of 303(d) impaired waters, ARC and TMDL waterbodies.

II.J Addressing 303(d) Impaired Waterbodies – OKR04 Part IV.A.1

Part IV.A of OKR04 requires that each SWMP "*document… how you will comply with the following requirements*:" Part IV.A states, "*If you discharge to waters identified on the latest CWA 303(d) list of impaired waters*," then Part IV.A.1 requires that the SWMP "*…must include all necessary BMPs that will ensure that the impairment caused by identified pollutants… in your receiving waters will not cause, have the reasonable potential to cause, or contribute to an in–stream exceedance of water quality standards*." Appendix C includes the MS4 map and location of all 303(d) waterbodies. Part IV.A.1 has seven sub-parts (Items 1.a – 1.h) that must be addressed in the SWMP. These are presented below:

OKR04 Part IV.A.1.a: (303d Plan)
In order to protect 303(d) impaired waters and not cause or contribute to a violation of water quality standards, the City of Warr Acres has created the following Plan which lists BMPs to be implemented to reduce the 303(d) pollutants of concern. These special BMPs have been selected by the City of Warr Acres as being the most effective for reducing pollutants of concern in stormwater runoff. Appendix C contains a map of the MS4 with respect to 303(d) waterbodies.

At the time of preparing this SWMP, the 2022 303(d) List was in effect in Oklahoma. After reviewing this list, the City of Warr Acres identified the following impairments within the MS4 (see the map in Appendix C which shows the locations of all 303(d) waterbodies within the MS4):

2014 303(d) Listed Waterbodies Within the City of Warr Acres MS4:

Waterbody Name	WBID	Impairment Causes
Lake Hefner	OK620910040200_00	Mercury, Dissolved Oxygen

The table of BMPs that follows represents the BMP implementation approach the City of Warr Acres will take to address 303(d) impairment. These special BMPs will be implemented to ensure that stormwater discharges from the MS4 will not cause, have the reasonable potential to cause, or contribute to an in-stream exceedance of water quality standards.

Table of BMPs and Pollutant Reduction Expectations for Addressing 303(d) Impairments:

303(d) Pollutant(s)	Best Management Practice (BMP)	Pollutant Reduction Expectations
Mercury	Include bi-annually in City monthly utility bill/newsletter information on properly disposing of any items that may contain mercury.	Prevent/reduce mercury being spilled to street surfaces through collection by sanitation trucks and compaction cycles. Properly dispose of mercury at OKC Household Hazardous Waste Facility.
Dissolved Oxygen	Include bi-annually in City monthly utility bill/newsletter information on when to apply fertilizers, pesticides and removing any lawn clippings, leaves from street surfaces during lawn mowing, leaf cleaning.	Reduce amount of nutrients, organic matter, fertilizers and pesticides that may enter waterways during rain events.

OKR04 Part IV.A.1.b: (Target Audiences)

The City of Warr Acres has selected its public education and outreach BMPs and activities based upon the types of residential, industrial, commercial and institutional pollutant sources that are known or anticipated to exist within the MS4 and also have the greatest potential to discharge pollutants in their stormwater runoff. By focusing the types of education materials on high priority target audiences, the City of Warr Acres will have greater success in reducing pollution through its education outreach program.

OKR04 Part IV.A.1.c: (Non-Stormwater Discharges)
The City of Warr Acres has examined potential non-stormwater discharges within its MS4 that could contribute pollutants to 303(d) impaired waters. The following potential discharge sources have been identified within the MS4:

Source Identifier	Location	303(d) Pollutants	Notes
Warr Acres Sanitary Sewer System	Within City Limits	Bacteria	WA committed $12 M in funds to address I&I during heavy rain events.

The City of Warr Acres reports any overflows from the WA sanitary sewer system to the DEQ as required and cleans any affected areas to the maximum extend practical.

OKR04 Part IV.A.1.d: (Inspect Illicit Discharges in Priority Areas)
The City of Warr Acres will establish a program to inspect for and enforce against illicit discharges within the MS4. Priority areas for potential pollutants of concern within the impaired watersheds will be established, as discussed in SWMP Section III.C. The City of Warr Acres has a BMP to conduct inspections within these 303(d) priority areas at a sufficient frequency to identify and characterize the sources of the 303(d) pollutants of concern. In addition, data from other agencies and sources, if available, will be obtained and used to assess potential sources. Details of this inspection and enforcement program are presented in Section III.C of this SWMP. The City of Warr Acres will also prepare a Standard Operating Procedure (SOP) document containing the methods to be used for these types of inspections. This SOP is also referenced in Section III.C of this SWMP.

OKR04 Part IV.A.1.e: (Operation & Maintenance; Assess New & Existing Flood Management Projects)

1. **Operation and Maintenance (O&M) for Structural and Non-Structural Controls:**

   The City of Warr Acres has developed the following procedures to address O&M of all city- owned flood management structural controls required in OKR04 Part IV.A.1.e. O&M of privately owned structures is discussed separately below, followed by a discussion of O&M of non-structural controls.

   O&M of City-Owned Structural Stormwater Controls:
   The City of Warr Acres defines city-owned structural stormwater controls to mean any physical structure owned and maintained by the City of Warr Acres, including: wet and dry retention and detention basins and ponds; culverts and open channels that are owned by or within the City of Warr Acres's easements or rights-of-way and for which the City of Warr Acres has an obligation under city ordinance to maintain; and physical stormwater

structures owned by the City of Warr Acres that are designed for managing stormwater flow and direction.

The following table summarizes the O&M program for city-owned structures. The City of Warr Acres may in the future develop formal written procedures of the steps outlined in the table below. Once developed, these procedures will be referenced in this SWMP in an SWMP document update, and the procedures will be kept with the SWMP document.

Summary of O&M Procedures for City-Owned Structures:

O&M Procedure	Frequency	Methods	Limitations
Detention / Retention Ponds	Annual visual inspections; maintenance as needed. (1)	Visual inspection using city staff. Maintenance depending on factors (1).	High priority given to structures that are new with a projected long life and greater usefulness.
Large Culverts and Channels (2)	Annual visual inspections; maintenance as needed. (1)	Visual inspection using city staff. Maintenance depending on factors (1).	Modifications to structure may need to be coordinated with other changes in the flood basin.

(1) Decision on repair / replacement of features will depend upon factors such as cost, age, future effectiveness of structure, and availability of materials and resources.
(2) Large culverts are defined as being 36" or larger in diameter. Large channels are those with hard surface lining, at least 5' bottom width and either vertical or sloped sides.

O&M of Privately-Owned Structural Stormwater Controls:

The City of Warr Acres defines privately-owned structural stormwater controls to mean any physical structure not owned and maintained by the City of Warr Acres, instead being owned and maintained by a private interest, such as a business, individual or homeowner's association. Types of privately-owned stormwater structures will include: wet and dry retention and detention basins and ponds; culverts and open channels that are privately owned and for which the owner or association has an obligation under city ordinance to maintain; and physical stormwater structures privately owned that are designed for managing stormwater flow and direction.

The following table summarizes the O&M program for privately-owned structures. The City of Warr Acres will offer to assist the private owner with development of formal written procedures of the steps outlined in the table below. Once developed, these procedures will be referenced in this SWMP in an SWMP document update, and the procedures will be kept with the SWMP document as well as with the owner.

Summary of O&M Procedures for Privately-Owned Structures:

O&M Procedure	Frequency	Methods	Limitations
Detention / Retention Ponds	Annual visual inspections; maintenance as needed. (1)	Visual inspection by owner with city staff assistance. Maintenance depending on factors (1).	High priority given to structures that are new with a projected long life and greater usefulness. Owner must abide by all local codes and ordinances.
Large Culverts and Channels (2)	Annual visual inspections; maintenance as needed. (1)	Visual inspection by owner with city staff assistance. Maintenance depending on factors (1).	Modifications to structure will need to be coordinated with the city regarding how the project will impact the flood basin.

(1) Decision on repair / replacement of features will depend upon factors such as cost, age, future effectiveness of structure, and availability of materials and resources.
(2) Large culverts are defined as being 36" or larger in diameter. Large channels are those with hard surface lining, at least 5' bottom width and either vertical or sloped sides.

O&M of City-Owned Non-Structural Stormwater Controls:

The City of Warr Acres defines city-owned non-structural stormwater controls to mean any stormwater-related program implemented by the City of Warr Acres, including: preservation of open space; expanding disconnections of impervious surfaces; expansion of vegetation and natural systems; grass swales and other types of natural, vegetated infiltration areas; and protection and expansion of riparian stream buffers. The City of Warr Acres will not impose requirements of non-structural controls on private property. Hence there will be no O&M actions needed regarding privately-owned non-structural controls. Instead, the City of Warr Acres will encourage and provide education about such programs as private development expands within the City of Warr Acres.

The following table summarizes the O&M program for city-owned non-structural controls. The City of Warr Acres may in the future develop formal written procedures of the steps outlined in the table below. Once developed, these procedures will be referenced in this SWMP in an SWMP document update, and the procedures will be kept with the SWMP document.

Summary of O&M Procedures for City-Owned Non-Structural Controls:

O&M Procedure	Frequency	Methods	Limitations
Preserving Open Space; Enhancing Swales and Infiltration Areas.	Annual visual inspections; maintenance as needed. (1)	Visual inspection using city staff. Maintenance depending on factors (1).	High priority given to areas that are new with a projected long life and greater usefulness.
Disconnections of impervious surfaces; buffers and riparian protection.	Annual visual inspections; maintenance as needed. (1)	Visual inspection using city staff. Maintenance depending on factors (1).	Maintenance of feature may need to be coordinated with other changes in the flood basin.

(1) Decision on repair / replacement of features will depend upon factors such as cost, age, future effectiveness of feature, and availability of materials and resources.

2. <u>Assess Water Quality Impacts from New Flood Management Projects</u>:

The second requirement in OKR04 Part IV.A.1.f applies to proposed new flood management projects that will be within 303(d) watersheds, and it addresses the pollutants of concern in the 303(d) listings. The City of Warr Acres has prepared the following assessment procedures summary (below). If additional detailed written procedures are produced as a stand-alone document in the future, they will be kept with the SWMP, and the SWMP text will be updated to provide a reference to the written procedures. ODEQ will allow flexibility on the types of assessment methods in SWMPs, and for selecting the types of new flood management projects that will be assessed. ODEQ will also allow a phased approach for beginning assessments of projects that have the greatest potential to cause water quality impacts.

The City of Warr Acres will implement an assessment program for new flood management projects that must be completed prior to issuance of building permits. To make this pre-design process work smoothly, the City of Warr Acres will provide education materials to applicants of building permits so that they can have time to prepare their plans and specifications to meet all requirements of the City of Warr Acres. A formal guideline document will be prepared for presentation to all building applicants as part of the education and outreach effort. This will allow applicants time to incorporate the local requirements regarding new flood management project water quality protections at the outset of project design.

The City of Warr Acres will apply the assessments to only MS4-owned projects initially. After

the first few years of experience, the City of Warr Acres will expand the procedures to certain types of privately owned projects which will be defined at that time.

The following methods will be used by the City of Warr Acres for making Part IV.A.1.f water quality impact assessments of new flood management projects:

a. Identify the locations within the MS4 of all the 303(d) impairment watersheds, and identify the pollutants of concern (parameters) for each watershed.

b. The following criteria will be used to select the types of new flood management projects that will be assessed:

    1) The project will be owned by the City of Warr Acres;

    2) The project is in the pre-design phase and just being proposed for development;

    3) The project will be a physical structure;

    4) The project will be designed to have an inlet structure for collecting runoff from the upstream watershed and an outlet structure for discharging collected runoff; and

    5) The project will be designed to collect runoff from five or more acres.

c. For each new flood management project that will be assessed, the City of Warr Acres will review any documentation available through ODEQ, EPA and other sources on the potential for that type of project to reduce, have no effect on or possibly increase the 303(d) pollutant(s) in runoff.

d. For each project, the City of Warr Acres will examine the location of the project and determine its potential for runoff from the project's outlet to enter a 303(d) impaired waterbody. The assessment of potential impact will include consideration of the following:

    1) Small projects several stream miles upstream from the impaired waterbody on small tributary channels will not likely have any significant effect on 303(d) impairment, whereas

    2) Large projects directly next to the waterbody may be more likely to contribute pollution.

e. The City of Warr Acres will assess the new project's design and determine if there are some features that could be modified during construction to reduce pollutants in runoff. For example, can an LID structure or feature be constructed downstream of the project outlet? Can the project be altered to have greater pervious surface? Can the outlet flow be diverted to a pervious area for absorption of flow?

f. The City of Warr Acres will submit its assessment findings to the building applicant in a timely manner so that any design changes can be made without unduly affecting project deadlines or schedules.

Within a few years of program initiation, the City of Warr Acres will expand the program to privately owned future projects.

3. <u>Examine Existing Projects for Necessity of Additional Controls</u>:

The third requirement in OKR04 Part IV.A.1.e addresses existing flood management projects in 303(d) watersheds. ODEQ allows flexibility for local OKR04 permittees to decide which types of existing flood management projects will need to be assessed under Part III.A.1.e for applicable 303(d) pollutants of concern. The City of Warr Acres will use the following criteria to select existing projects for examinations as required by Part III.A.1.e:

a. The project is publicly owned;

b. The project is a physical structure with definable inlet and outlet features;

c. The project receives runoff from five or more acres upstream of the inlet;

d. The project has a long projected life and function;

e. The project has physical features with that can be realistically modified to benefit WQ;

f. The project is privately owned, with owners that are willing to cooperate and assist with their own resources to make recommended modifications, and

g. The project has a good benefit to cost ratio for making modifications.

The City of Warr Acres has developed criteria for completing the "*examination of existing projects to determine if incorporating additional water quality protection devices and practices are necessary*" to affect improvements in 303(d) watersheds. The following examination criteria will be used for rejecting existing projects that were selected using the criteria above:

a. The project has old structures and features with no effectiveness remaining,

b. The project offers little to no potential WQ benefit,

c. The project has poor benefit to cost ratio of the proposed modifications needed,

d. The project is or likely will be scheduled for demolition or upgrades in the near future,

e. The project has an unknown or no clear ownership, and

f. The project is privately owned, and there is no clear legal authority to require making water quality improvements to private structures.

It is important to note that the "examination" of existing projects in Part IV.A.1.e of OKR04 does not actually require that modifications be made once a project examination has been completed. Part III.A.1.e only requires that the examination be made. However, OKR04 does require that each permitted MS4 take all actions "to the Maximum Extent Practicable" (MEP) to protect 303(d) impaired waterbodies from further degradation, and

protect water quality. Therefore, the City of Warr Acres will utilize the procedures outlined above for making modifications to existing projects where feasible.

OKR04 Part IV.A: (Selecting BMPs)

OKR04 Part IV.A.1.g, which applies to selecting 303(d)-related BMPs, requires that "*You must choose BMPs from EPA's menu or select others that can be used for managing the identified pollutants (e.g., nitrogen or phosphorus, bacteria) in your discharges. The details of the BMPs can be viewed from EPA's website at: http://water.epa.gov/polwaste/npdes/swbmp/index.cfm*." The City of Warr Acres will rely upon several sources for selecting 303(d)-BMPs, including: 1) the EPA database; 2) recommendations from agencies such as ODEQ; 3) recommendations from other permittees; and 4) an assessment of feasibility based upon BMP reliability, affordability and suitability to local conditions.

OKR04 Part IV.A.1.h: (BMPs to Address Bacteria 303(d) Waters)

OKR04 Part IV.A.1.h requires that each permittee address four categories of activities regarding bacteria 303(d) pollutants. The City of Warr Acres will take the actions specified below to address these five categories. Prior to implementing any of these BMPs, the City of Warr Acres will send the proposed BMPs defined in the tables below to ODEQ for review and make any changes that ODEQ will require. The categories and sub-categories used below are taken directly from OKR04.

Category 1: Sanitary Sewer Systems:

Sub-Category in OKR04	Selected BMP	Implementation Notes
(a) Make improvements to sanitary sewers	Repair and replace breaks in sewer lines and appurtenances.	Small repairs covered by annual budget; large projects must be ***special funded***.
(b) Address lift station inadequacies	Inspect lift stations in bacteria 303(d) watersheds annually.	Small repairs covered by annual budget; large projects must be ***special funded***.
(b) Address lift station inadequacies	Assess structure, function and capacity of lift stations every 5 years.	Small repairs covered by annual budget; large projects must be ***special funded***.
(c) Improve reporting of violations	Annual training of public works staff on timely reporting of sewer bypasses and upsets.	Public Works staff reports in a timely manner as required.

Category 2: On-Site Sewage Facilities (OSSFs):

Sub-Category in OKR04	Selected BMP	Implementation Notes
(a) Warr Acres Sanitary Sewer system is treated outside of city limits at the Bethany/Warr Acres Sewer Plant (BWAPWA)	NA	NA

Category 3: Illicit Discharges and Dumping:

Sub-Category in OKR04	Selected BMP	Implementation Notes
Additional effort to reduce waste sources of bacteria	Distribute brochure on grease trap cleaning and maintenance.	Distribute to businesses with grease traps.
Additional effort to reduce waste sources of bacteria	Inspect grease and grit traps at local businesses.	Distribute to businesses with grit traps.

Category 4: Animal Sources:

Sub-Category in OKR04	Selected BMP	Implementation Notes
Expand existing management programs to identify and target new sources	Distribute/mail pet waste brochures to residential properties.	

Category 5: Resident Education:

Sub-Category in OKR04	Selected BMP	Implementation Notes
Increase focus and resident education on bacteria discharges from residential sites.	Place web page on MS4's stormwater website about bacteria discharge types and amounts from residential properties either as direct discharge or in runoff.	
Increase focus and resident education on overflows from sewer line clogs from fats, oils and grease.	Place web page on MS4's stormwater website about bacteria contamination from sewer overflows caused by fats, oils and grease disposal to sewer lines.	
Increase focus and resident education on bacteria from decorative ponds.	Distribute brochure on bacteria contamination from residential decorative ponds.	
Increase focus and resident education on bacteria from pet waste.	Distribute brochure pet waste residential properties.	

II.K TMDL Allocations and/or Watershed Plans – OKR04 Part IV.B

OKR04 Part IV.B requires that each permittee address all conditions specified in a completed TMDL or Watershed Plan for stormwater permitted dischargers. OKR04 Part IV.B states that, "*if that TMDL includes a waste load allocation or load allocation for a parameter likely to be discharged by the MS4, your discharges must meet any limitations, conditions, or other requirements of the waste load allocation (WLA), load allocation and/or TMDLs associated implementation plan within any timeframes established in the TMDL or watershed plan. Monitoring and reporting of the discharges may also be required as appropriate to ensure compliance with the TMDL, or watershed plan. You must adopt any WLAs assigned to your discharges specified in the TMDL, or similar targets in the watershed plan, as measurable goals in your SWMP. The SWMP must be modified to implement the TMDL within the timeframe established in the TMDL or as otherwise specified in watershed plan. You must comply with any additional annual reporting or evaluating progress requirements in the TMDL or watershed plan*."

There are two ways to classify TMDLs in Oklahoma: 1) "notification TMDLs" versus "EPA approval TMDLs", and 2) TMDLs having "aggregate WLAs" versus "individual WLAs".

Aggregate WLA versus Individual WLA MS4 Requirements: Most older TMDLs have all of the permitted MS4s within the TMDL watershed lumped together ("aggregated") regarding assigned maximum daily pollutant loads (referred to as MS4 Wasteload Allocations or "MS4_WLAs"). For

example, if a TMDL watershed has an MS4 aggregated TMDL maximum daily load for bacteria of 5 billion colonies per day, all MS4s collectively are assigned this maximum load limit, regardless of how many MS4s there are in the watershed. The new TMDLs now assign maximum load limits (MS4_WLAs) to individual permitted MS4s. Under OKR04 Part IV.B, each permittee must make its assigned load limit a Measurable Goal in the MS4's Stormwater Management Program (SWMP) document. For permittees with aggregate WLAs, the aggregate becomes the Measurable Goal.

BMP-Based TMDLs: OKR04 Part IV.B states, "*If the TMDL or watershed plan relies on a BMP-based approach, effective implementation of additional TMDL or watershed plan-related BMPs will be sufficient to implement applicable WLAs*." For BMP-based TMDLs, MS4s will not have to demonstrate that they are staying below the maximum daily load limit (MS4_WLA) in the TMDL. Thus far, all TMDLs written in Oklahoma are BMP-based TMDLs.

TMDL Implementation: The OKR04 permit does not have specific requirements for meeting TMDL implementation. Rather, OKR04 defers to the TMDL document itself to provide implementation requirements for permitted MS4s. These are found in an Appendix of each TMDL document. These include requiring a Monitoring Plan, a TMDL Pollutant Reduction Plan, and reporting data and status in the MS4's Annual Report.

Due to the individual nature of requirements within each TMDL document, the City of Warr Acres will take the following actions regarding completed TMDLs within its MS4:

1. Review the latest list of completed TMDLs from ODEQ, and obtain all TMDL documents applicable to the MS4.
2. Determine the requirements placed upon the City of Warr Acres in each TMDL's Appendix.
3. For Notification TMDLs, begin formulating a strategy to begin meeting the TMDL requirements once notification is received from ODEQ.
4. For EPA Approved TMDLs, begin developing the resources and written plans required by the TMDL.

5. Research the feasibility of joining a regional monitoring program if allowed by the TMDL. Otherwise, develop a means of conducting local monitoring as required by the TMDL.
6. Seek assistance from agencies and other resources, as needed, to develop all written procedures and documentation required by the TMDL.
7. Research and adopt the most effective and reasonable BMPs to include in the pollutant reduction plan required by the TMDL, and identify resources for BMP implementation.
8. Seek assistance from outside resources and begin implementing all TMDL requirements on schedule.
9. Modify the SWMP to include any assigned WLA for the MS4 as a Measurable Goal.

II.L Discharges to Outstanding Resource Waters (ORWs) – OKR04 Part IV.C

For the present OKR04 2021-2025 permit cycle, the City of Warr Acres has no outstanding resource waters within or connected to it's city limits.

III. Part V Stormwater Management Plan (SWMP)

This SWMP provides information on the Best Management Practices (BMPs) and other activities that will be implemented to address each of the six Minimum Control Measures (MCMs). Quotations of relevant passages from the OKR04 permit are inserted as needed *in italics text* in this SWMP to indicate the context of permit compliance.

Existing permittees are assumed to have a fully implemented SWMP and all BMPs successfully implemented at time of Notice of Intent (NOI) submittal in early 2021. They may make changes to their SWMP and BMPs at the time of filing their NOI without having to perform OKR04 Part V.D.2.a change requirements. All subsequent changes to BMPs and the SWMP must follow the requirements of Part V.1. states that, "*Modifications and updates shall be reflected in your SWMP and implemented within one (2) year of the effective date of this Permit, then as needed.*"

The City of Warr Acres is an existing permittee. As such, for each of the following Minimum Control Measures (MCMs) in the SWMP sub-sections A-F below, the City of Warr Acres will implement new and/or continue implementing existing BMPs, develop implementation schedules, and establish Measurable Goals for each BMP. An Annual Report will be submitted to ODEQ that documents implementation and BMP effectiveness under each of the six MCMs. Appendix A of the SWMP contains tables of the BMPs with assigned Measurable Goals, implementation schedules, and other BMP-related information.

V.C. Minimum Controls Measures (MCMs):

The six MCMs that must be included are listed below. A seventh optional Control Measure is available. Each MCM must comply with the items included in the permit requirements section. You are encouraged to consider incorporating the permit recommendations into your program but they are not mandatory. Each MCM will require you to review and revise your existing program as necessary. Any revisions shall be completed within two years of the effective date of the permit and then as needed.

OKR04 Part V.C.1 requires Phase II cities to develop and implement a public education program to distribute information and education materials to the community and MS4 staff, and to document a stormwater public outreach program by specifying BMPs and Measurable Goals for educating the general public target audience. Revisions to existing programs must be completed within the first year of effective date of the permit.

III.A.1 Best Management Practices for Public Education

The City of Warr Acres will use a variety of public education BMPs to inform individuals and groups within the community about the steps they can take to reduce stormwater pollution and become involved in the stormwater program. Appendix A summarizes all BMPs that will be used for this MCM. Appendix A also lists the Measurable Goals and schedule of implementation assigned to each BMP.

III.A.2 Target Audience

The following target audiences were selected because the City of Warr Acres considers them most likely to be significant sources of stormwater pollutants:

BMP Category or Type	Target Audience
Residential chemical use and disposal	Homeowners, renters, multi-family residents.
Commercial chemical use and disposal	Commercial retailers selling chemicals and construction sites.

III.A.3 Target Pollutant Sources

The City of Warr Acres's Public Education program will primarily address pollutants from residential neighborhoods by educating individual homeowners on the proper disposal of such household chemicals as:

- pesticides
- fertilizers
- detergents
- solvents
- motor oil
- antifreeze
- other motor and engine fluids
- oil-based paints
- rubbish ("floatable" materials)
- yard waste (grass clippings, leaves)

By encouraging the public to use local and regional recycling centers and household pollutant collection events, additional household chemicals such as heavy metals, solvents, acids and poisons can be safely disposed of. Proper storage, use and disposal of chemicals by local businesses will also be addressed in the education program.

III.A.4 Outreach Strategy

The City of Warr Acres will develop some public education BMPs locally.

The City of Warr Acres public education program will employ the following strategies:

a. Homeowners will be educated on how to properly use and disposal of fertilizers and other household chemicals as well as proper septic system maintenance.

b. The public education program will also provide information on how to get involved in stream cleanups, restoration activities and other local conservation efforts that may periodically be conducted within the City of Warr Acres.

c. The City of Warr Acres will promote citizen participation in area-wide stream and city cleanup events, use of recycling centers in the vicinity, and participation in pollutant collection events.

d. The Warr Acres website (www.warracres-ok.gov) will provide information to the general public about local and regional water quality and program issues as well as numerous web links to water quality resources.

e. The City of Warr Acres education program will include written materials that target commercial and industrial enterprises that have business activities that may negatively impact the stormwater quality of the MS4.

The City of Warr Acres's Public Education program has a goal of providing stormwater education material to at least half of its homeowner residents by the end of the five-year permit cycle.

III.A.5 Management Responsibility

The City of Warr Acres has overall project management responsibility for implementing the Public Education and Outreach MCM. The Stormwater Coordinator / Mayor / consultant or designee will coordinate all local activities and implementation of all program elements for this MCM.

III.A.6 Evaluating Program Effectiveness

OKR04 Part VI.C.1.b lists "evaluating program effectiveness" as a Recommendation. Part VI.C.1.a requires each permittee to "*Assess your education and outreach program annually as required by Part VI.C of this permit*." Part V.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each Public Education BMP. These are summarized in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from individuals and stakeholders in the general public and from local businesses. Feedback from the public (email, phone call, fax, letter or personal visit) will include requests for more information and any follow-up actions taken by MS4 staff to address problems or concerns. If pollution sources are abated as a result of the contact, then the abatement action will be logged as a BMP success for public education as well as removal of illicit discharges. Changes in types of issues reported by the general public and businesses over several years of BMP implementation should demonstrate effectiveness of this MCM.

III.B MCM 1: Public Education and Involvement:

Some of the activities under the Public Education MCM also apply to the Public Participation and Involvement MCM. These include stream monitoring, use of recycling centers, participation in household pollutant collection events, storm drain marking, and community cleanup events. Appendix A lists each Public Participation BMP including implementation schedules and Measurable Goals for each BMP.

The Public Participation MCM is different from the Public Education MCM in that the citizens of the City of Warr Acres will actively participate in a program component such as stream cleanups or storm drain marking. By participating, citizens not only learn about the urban stormwater quality issues but also contribute towards improving water quality in their community.

III.B.1 Best Management Practices for Public Participation

The City of Warr Acres will use several public participation BMPs to involve individuals and groups in activities and programs to reduce stormwater pollution and become involved in the stormwater program. Appendix A summarizes all BMPs that will be used for this MCM along with the Measurable Goals and schedule of implementation for each BMP.

III.B.2 Public Involvement in Program Development

In cooperation with ODEQ, the City of Warr Acres will take a number of steps to inform and include the public in understanding and providing input in the development of the Phase II program. These include:

a. City staff will present staff and budget information about the Phase II program in City Council public meetings.
b. City staff has, and will in the future, respond to questions from the public, and the city has distributed information to the community upon request.
c. The city will have two articles about the stormwater program that includes requests for citizen input in the cities monthly newsletter that is mailed with the utility bill.
d. As part of its existing Public Education and Outreach MCM, the City of Warr Acres has provided information about the MS4 program to citizens, and encouraged them to contact the stormwater coordinator for additional information.
e. The ODEQ hosted a public meeting and held a formal 30 day public comment period in April 2021 on the draft OKR04 General Permit; ODEQ responded to all comments in writing.

f. The ODEQ has placed all relevant information about the Phase II program, including cities affected and activities required under Phase II, on their public website with links to various types of technical information for the public.

g. The ODEQ will place a notice of the availability of the Notice of Intent (NOI) on the ODEQ web site, and provide a 30 day public comment period for any organization or individual to make formal comments or inquiries on the draft NOI and draft SWMP of each OKR04 applicant. The City of Warr Acres will make available to any group or individual, upon request, a copy of the NOI and SWMP, and provide any other information upon request.

III.B.3 Public Involvement in Program Implementation

Throughout the coming five year permit cycle, the City of Warr Acres will use several methods to educate the public about the Phase II program and opportunities for participation. These include:

a. The City of Warr Acres will include in its Public Education brochures information on how individuals and organizations can become more fully informed and participate in water quality improvement efforts under the Phase II program.

b. City Council agenda items dealing with aspects of the program (e.g. budget approvals, approval of program activities) will be open to the public and receive public comment.

III.B.4 Target Audience

The public participation program will primarily target homeowners, City of Warr Acres adult residents, public school classes, non-profit organizations, and civic organizations. For school-age children, the participation program will focus on storm drain marking. Local waste collection events and community / stream cleanups will target individual residents in the MS4 by encouraging their participation, and providing event information. All ethnic and socio-economic groups will be encouraged to participate. The Phase II program for the City of Warr Acres will benefit all residents and local enterprises.

III.B.5 Public Involvement Activities

Appendix A lists all of the Public Participation BMPs that will be used by the City of Warr Acres, including the assigned Measurable Goals and implementation schedule for each BMP. Some education materials will be from Federal, State or other sources.

The City of Warr Acres Public Participation program will be conducted to promote and educate its citizens about opportunities to play an active role in water quality improvement efforts. Several of the Public Participation BMPs in Appendix A are joint ventures between the City of Warr Acres and other agencies and organizations. The roles of the permittee and the organizations for each of these cooperative BMPs are presented below:

Cooperative BMPs for the Public Participation MCM

BMP or Activity	Outside Organization	Organization Role	MS4 Role
Storm drain Marking	(OCC) Oklahoma Conservation Commission Blue Thumb program or other volunteers	Supply markers, train volunteers, help with recruitment and marker placement events.	Promote program; help fund supplies; provide staff for field and admin. work.
(COSWA) Central Oklahoma Stormwater Alliance www.coswa.wordpress.com (GCSA) Green Country Stormwater Alliance www.stormwaterok.net	ACOG	Host and update Public Participation web pages on COSWA/GCSA website; solicit ideas and information from COSWA/GCSA members.	Provide information; fund COSWA/GCSA membership including website; promote website.
Pines/Twin Lakes Cleanup around lake banks	Pines HOA/OU student volunteers	Manage annual cleanup.	Promotes events locally; funds MS4 portion of event costs.
City Parks Cleanup Event	OCC's Blue Thumb program or other volunteers	Provide supplies; solicit volunteers, coordinate events; provides for disposal.	Promote program locally; help fund supplies; provide staff for event and admin. work.
School Classroom Instruction	*OCC's Blue Thumb program or other volunteers*	*Provide supplies, set classroom dates; solicit volunteers; help conduct training.*	*Help set classroom dates; helps with classroom training.*
Recycling Center at Dorthy Cavendar Park	Warr Acres Residents	Supply receptacles and staff	Provide location and promote the center in WA monthly newsletter

III.B.6 Management Responsibility

The City of Warr Acres has overall project management responsibility. The Stormwater Coordinator, Mayor or designee will coordinate all local activities and implementation of all program elements.

The roles of each agency and organization that will provide Public Participation services and support to the City of Warr Acres are listed in the Cooperative BMPs table above.

III.B.7 Evaluating Program Effectiveness

OKR04 Part V.C.1.b lists "evaluating program effectiveness" as a Recommendation. Part VI.C.1.a requires each permittee to "*Assess your public participation and involvement program annually as required by Part V.C of this permit*." Part V.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each Public Participation BMP. These are summarized in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from individuals and stakeholders in the general public and from cooperating agencies and organizations listed in the Cooperative BMPs table above. Feedback from the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of Public Participation events will be recorded in writing. Increased participation by citizens and/or increased pollution quantities collected over a period of several years of BMP implementation should demonstrate effectiveness of this MCM.

III.C. MCM 2: Industrial Stormwater Runoff Control

The City of Warr Acres current has no industrial activities or businesses within its' city limits. The city will annually update its' annual report by checking for any new industrial business that have located within the city limits.

III.D. MCM 3: Illicit Discharge Detection and Elimination (IDDE)

The City of Warr Acres will implement a comprehensive program to detect and eliminate illicit discharges following the requirements in the OKR04 General Permit. The program will rely upon a number of methods of pollutant detection. There are two categories of pollutants that will be addressed in different ways: 1) episodic incident with no determinable source, and 2) chronic or frequent incident with a potentially determinable source.

Untraceable Sources: The first category covers pollutants introduced into the MS4 from individuals in a one-time episode at a discrete point of entry in which the responsible party or source is not traceable. Examples of these are dumping of yard waste, motor oil, antifreeze or trash into a creek or storm drain. The sources for these types of pollutants, when discovered in the MS4 or local stream, cannot be determined (e.g., finding the individual causing the pollution). Discovery of this type of pollution will be from incident reports from citizens, city crews, police and fire workers, businesses, and State and Federal agency field crews. Prevention of future

episodic pollution incidents will rely upon implementation of the Public Education and Public Participation programs as defined in this SWMP.

Traceable Sources: The second category covers pollutants from sources that are frequently occurring or otherwise traceable through stream channels and the MS4 system using one or more methods of visual inspections, use of simple chemical field test kits and/or formal chemical sampling via laboratory analysis. Pollutants from these sources will be dispersed downstream as a detectable odor, visual color, increased turbidity, excessive algae growth, or changes in water chemistry (e.g. pH or conductivity) when compared to uncontaminated water elsewhere in the stream or MS4. These potentially traceable pollutants are amenable to "source tracking" inspections, and the sources are more likely to be found and remediated. The source tracking investigation methods are discussed below in the Dry Weather Field Screening (DWFS) Plan.

Types of Inspections: There are several parts of OKR04 Part V.C.3.a that require conducting some type of field inspections under the IDDE MCM:

a. OKR04 Part V.C.3.a requires the MS4 to "*implement a Dry Weather Field Screening* [DWFS] *Plan to detect, investigate, and eliminate illicit discharges*."

b. OKR04 Part V.C.3.aii (which is within the DWFS Plan requirements) requires the MS4 to develop "*procedures for tracing the source of an illicit discharge, including the specific techniques you will use to detect the location of the source.*"

c. OKR04 Part V.C.3.aiii & iv requires the MS4 to "*Develop … and implement a plan to detect and address non-stormwater discharges, including illegal dumping to your system*."

The City of Warr Acres has developed a DWFS Plan, presented below the requirements in OKR04 Part V.C.3.a. While this SWMP text covers these requirements, in the future the City of Warr Acres may prepare more detailed and formal Standard Operating Procedures (SOPs) as experience is gained in performing these permit requirements. If SOPs are prepared, they will be referenced in an update to the SWMP and replace the existing text.

III.C.1 Best Management Practices for Illicit Discharge Detection and Elimination

The City of Warr Acres will use a number of Best Management Practices (BMPs) to implement an effective detection and elimination program for illicit discharges. Appendix A lists the BMPs that will be used for this MCM. Some BMPs will address administrative actions, such as adopting an ordinance to address pollution occurring locally, while other BMPs will address public education, pollution inspection program, employee training and protection of special waters such as 303(d) listed waterbodies.

III.C.2 Map Development and Update

OKR04 Part V.C.3.a.vii requires the MS4 to develop and periodically update a map of the MS4. As part of ODEQ's program evaluations (audits), the following map attributes are expected:

a. Outfall locations;

b. Names and locations of Waters of the State receiving MS4 outfall discharges;

c. Catch basin locations;

d. Locations of MS4 pipes, ditches and conduits;

e. Location of public stormwater facilities; and

f. Location of private stormwater facilities.

The City of Warr Acres will develop a map of the MS4 system showing major drainage system features, major outfalls and prominent receiving streams. The MS4 system map will be developed in AutoCAD or GIS format. Periodic updates of map data from substate planning agencies and State and Federal agencies will be used to make future changes to the MS4 map as needed. Map features will also be amended in the future as more system inspections are performed by MS4 staff. Updated map information, such as outfall locations and site descriptions, will be reviewed annually by city staff and reflected in the map updates.

The mapping process for both creating new maps and updating existing maps will involve:

a. Collecting initial and updated map data from agencies and organizations;

b. Collecting field data during inspections by city crews to verify locations and descriptions of MS4 spatial map attributes;

c. Periodic review of MS4 system map data by the City Engineer and other city and outside professional staff, and updating maps as needed;

d. Global Positioning System (GPS) will be used when needed to provide coordinate data for the MS4 system, facility locations and sampling sites, while other coordinate data will be collected using aerials and GIS map layers that show structures and sites;

e. Digital and paper aerial photography, and USGS 7.5 Minute Quadrangle maps will be used to assist with locating outfalls and updating their positions; and

III.C.3 Ordinance

OKR04 Part V.C.3.a.vi requires that an ordinance or other regulatory mechanism be adopted by the MS4 to effectively prohibit non-stormwater discharges. The City of Warr Acres has adopted an ordinance, Ordinance 1076 (September 15, 2009) (Title 13 Chapter 13.02 Storm Water Drainage Program) prohibiting illicit discharges to the MS4 which will be evaluated periodically for potential modifications.

Development and maintenance of a local illicit discharge ordinance is a BMP listed in Appendix A along with the intended implementation schedule and Measurable Goals. The ordinance development and maintenance process will involve taking the following actions per the schedule presented in Appendix A:

a. Obtain and review model stormwater pollution ordinances from other permitted MS4s and agencies;

b. Compare model ordinances to existing local codes and ordinances and make modifications to local codes;

c. If needed, adopt a new local ordinance or modify an existing ordinance to address illicit discharge detection and elimination;

d. Periodically evaluate ordinance effectiveness and make changes when needed to the illicit discharge ordinance or codes.

III.C.4 Plan to Detect and Eliminate Illicit Discharges

OKR04 Part V.C.3.a requires the MS4 to develop a Dry Weather Field Screening (DWFS) Plan. Item (c) of this passage requires the MS4 to conduct "tracing the source" inspections. OKR04 Part V.C.3.a.viii requires development of a more general plan to detect and address non-stormwater discharges. All three of these requirements are based upon conducting field inspections to look for pollution and their sources, and to take actions to eliminate the pollutant discharges from these sources.

IDDE Plan: The City of Warr Acres has determined that the following actions will satisfy the OKR04 requirements to have an effective Illicit Discharge Detection and Elimination (IDDE) program. The IDDE Plan action items follow the OKR04 steps presented in OKR04 Part V.C.3.a items i – viii.

a. Locating Priority Areas:

   (1) Examine maps of MS4 area to locate sites with high potential for pollutant discharges.

   (2) Delineate MS4 areas within each of the 303(d) watersheds, and identify high priority areas that have sources most likely to cause or have the reasonable potential to contribute the 303(d) pollutants of concern to the 303(d) listed waterbody.

   (3) Collect data on pollutant spills that have occurred in the MS4 within the past 5 years.

   (4) Identify areas in which there have been sanitary sewer system bypasses within the past 5 years.

   (5) Identify areas having the oldest sanitary sewer system lines and appurtenances.

   (6) Identify industrial, commercial and residential areas having the greatest potential to discharge pollutants.

   (7) Compile results of any ambient sampling and DWFS inspections that indicate potential pollutants being discharged.

(8) Compile all of these data, and generate a map and description of areas in the MS4 having the greatest potential to discharge pollutants.

(9) Of the overall MS4 high priority areas, identify high priority areas specifically associated with 303(d) waterbodies.

b. On-Site Sewage Disposal Systems:

(1) Compile an inventory of all on-site sanitary sewage disposal systems (OSSDS) in the MS4. (none known within the Warr Acres city limits)

(2) Assess the approximate age and condition of the clusters of OSSDS (e.g., those within a given residential subdivision).

(3) Obtain records from ODEQ and county agencies on OSSDS inspections and enforcement actions regarding system bypasses or failures and pollution episodes.

(4) Identify areas within the MS4 that have the highest potential for OSSDS failures and pollution discharges, and conduct inspections of the receiving streams for evidence of sewage bypasses from OSSDS.

c. Tracing the Source of Illicit Discharges:

(1) Develop Dry Weather Field Screen (DWFS) Standard Operating Procedures (SOPs) documents that list the methods to be used by field crews to conduct the DWFS inspections. The DWFS SOPs will include steps for selecting DWFS sites, making visual observations at each site, using simple field test kits, and recording data on field forms.

(2) The DWFS SOPs and program will include special attention to 303(d) waters as required in OKR04 Part IV.A.1.d.

(3) Conduct DWFS inspections at least once per year at the sites identified in the SOPs, with special emphasis on all high priority areas in 303(d) watersheds as required in OKR04 Part IV.A.1.d.

(4) Upon discovery or after receiving a report of a pollutant in the MS4 or in a receiving water, prepare a Work Order to begin administratively tracking progress of the investigation.

(5) Perform an initial visual observation at the site of the reported pollution event.

(6) If pollutants are not found, log out the Work Order noting the inspection results.

(7) If Pollutants are found, determine if it will be possible to trace the source by looking for evidence of pollutants upstream or coming from a discharge pipe or channel.

(8) If the pollutants appear to be due to an episodic, one-time discarding action with no traceability, note the findings in the Work Order and proceed with cleanup.

(9) If the pollutant source(s) can be traced, conduct further inspections using visual indicators and simple field test kits as necessary to trace the pollutant source. Document your inspection results carefully.

d. Removing the Source:

(1) If the source is found, present your findings to the owner of the pollution source and proceed with enforcement steps as provided in the local IDDE ordinances and codes.

(2) Depending upon the severity of the pollution event, an emergency meeting with the owner may be needed. Consult ODEQ for assistance if needed.

(3) Consult with ODEQ if faced with refusal by owners of the pollutant source or if additional technical expertise is needed to help document pollution severity or extent.

(4) Upon completion of all inspection and enforcement actions, close Work Order.

e. Program Evaluation and Assessment:

(1) The assessment of the IDDE Plan and program will be the assessment required for the Annual Report, with additional evaluation for all inspections and pollutant reduction actions taken within the high priority areas in 303(d) watersheds.

(2) Factors and information to consider include numbers of IDDE Work Orders performed, successful completion of Work Orders, resolution of problems, estimated quantities of pollutants eliminated from the MS4, documentation of any public health problems or complaints, input from ODEQ and county health department, and input from citizens concerning success of program effectiveness or unresolved issues.

(3) Using the factors cited above, perform an overall assessment of the program.

(4) Identify program changes needed in the future to increase effectiveness.

Administrative Actions to Support the IDDE Program: To facilitate the successful implementation of the IDDE Plan defined above, the following additional administrative actions will be taken by the City of Warr Acres:

a. Ensure that maps are effective by collecting map feature data during inspections to verify accuracy;

b. Evaluate existing land uses in the MS4, and delineate high priority areas that have the greatest potential to discharge pollutants, with special consideration for 303(d) watersheds;

c. Solicit and compile illicit discharge and pollution information from citizens, police and fire units, city public works crews, local businesses, other municipalities, non-profit organizations, volunteer stream monitors, students and educational institutions, construction contractors and workers, local building officials, floodplain administrator, and State and Federal agencies;

d. Ensure that field and facility data are compiled in a manner that facilitates the inspection process (e.g. information about possible pollutants and/or sources are provided to MS4 inspectors in a timely fashion);

e. Ensure that inspection results and field and laboratory data are properly documented with a level of quality assurance appropriate to the use of the data;

f. Implement procedures for helping with enforcement, including how to approach owners of potential sources for on-sight inspections, how to present field data to owners that confirms the source, and what procedures the owner must take to remove the discharge; and

g. Periodically evaluate the inspection and enforcement program, and make modifications as necessary to improve program effectiveness.

Details of IDDE Inspections: The Dry Weather Field Screen (DWFS) and source tracking programs for potentially traceable sources will be described more fully in the City of Warr Acres's DWFS SOPs. The SOPs will include methods to conduct a visual inspection program performed by MS4 crews, which may include use of one or more field test kits for parameters that monitor the most likely type of stormwater pollution that is indicated (e.g. chlorine residual, pH, dissolved oxygen, conductivity, etc.). The visual inspection will describe and/or quantify the extent of pollution (e.g. floatables, excess algae growth, dead or stressed stream vegetation and organisms, color of water, odors, sediments, etc.). The DWFS SOPs will include special actions to address high priority areas identified in 303(d) watersheds.

If source tracking requires scientifically defensible data for possible litigation and/or enforcement action, then the City of Warr Acres will use either its properly trained field collection crews or contract professionals to conduct appropriate sampling and information gathering to locate sources and characterize pollution events. Outside agencies will be contacted, if necessary, to report potentially illegal discharges or to protect health, safety or the environment. All samples collected for transport to laboratories for analysis shall be collected under written Quality Assurance (QA) protocols, including use of Chain of Custody forms, appropriate sample bottles with labels, field forms describing sample collection sites and conditions, and proper sample preservation. All laboratory analyses will follow 40 CFR Part 136 methods.

Standard paper field forms and/or electronic field data recording devices (e.g. laptops, PDAs, GPS or Tablet PCs) will be used to make data collection systematic. Data will be entered and/or downloaded into computer databases for analysis, sharing and reporting. As needed, field data will be linked to MS4 map attributes. If requested to do so by ODEQ, certain monitoring data will be reported to ODEQ on ODEQ's Discharge Monitoring Report (DMR) forms.

III.C.5 Administrative Procedures for Source Control

Untraceable Pollution: When episodic incidental pollution is reported to the City of Warr Acres (e.g. motor oil dumped into a storm drain), the MS4 stormwater staff will record the date, location, information source, and description of the event. If necessary, a public works crewman will be sent to investigate to determine if the site should be cleaned (e.g. removal of yard waste, oil spill cleanup, etc.). After inspection and/or cleanup, MS4 staff will keep a record of all actions taken regarding the pollution incident. These data will be included in the City of Warr Acres Annual Report and used to evaluate program effectiveness.

Traceable Pollution: When potentially traceable pollution is reported, the same incident information will be recorded, and MS4 staff will be sent to investigate. If the source is not immediately obvious, the MS4 staff will initiate a source tracing inspection and/or hire professional investigation of the site and attempt to trace the source upstream from the pollutant incident. If the source is located, MS4 staff will contact the owner / responsible party to request that the source be abated within a reasonable time in accordance with local ordinance.

The MS4 will perform a follow-up inspection to confirm that the source of pollution has been abated. If not, then the MS4 will take increasingly more strict action leading up to assessment of penalties, and possibly to include ODEQ and EPA enforcement as well. Throughout the administrative and investigative process, MS4 staff will document all major actions in writing to permanent files. Data from all such incidents will be included in the City of Warr Acres Annual Report and used to evaluate program effectiveness.

III.C.6 Inform Employees and the Public

OKR04 Part V.C.1.a.ii(2)a requires the MS4 to, "*Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Promote, publicize and facilitate the reporting of illicit discharges*". Appendix A lists the types of education and outreach BMPs that will be used for the public community and municipal employees. Those activities specifically targeting the requirements in OKR04 listed below.

a. Distribute brochures to encourage proper use and disposal of household chemicals, maintenance of on-site sewage disposal systems, and recycling;
b. Support a regional public seminar dealing with one or more Phase II stormwater issues;
c. Discuss the Phase II program in a city council meeting open to the public;
d. Provide information by way of a link to the EPA's website from the City's website about pollutant reduction;
e. Support local stream clean-up events conducted by non-profits, organizations or agencies;
f. Support local Blue Thumb public education programs and/or other public education programs;
g. Support local Blue Thumb or other local volunteer storm drain marking program;
h. Support regional household pollutant collection; and
i. Support local and regional recycling of wastes.

III.C.7 Authorized Occasional Incidental Non-Stormwater Discharges

OKR04 requires the MS4 to "*Maintain a list of occasional incidental non- stormwater discharges or flows as allowed in [OKR04] Part II – B2 that will not be addressed as illicit discharges*." The City of Warr Acres's list of allowable non-stormwater discharges is presented

at the beginning of Section III.C of this SWMP, along with a description of the actions to be taken to address pollutant releases from firefighting activities.

III.C.8 Management Responsibility

The City of Warr Acres has overall project management responsibility. The Stormwater Coordinator will coordinate all local activities and implementation of all program elements.

III.C.9 Evaluating Program Effectiveness

OKR04 Part VI.C requires the MS4 to, "*Evaluate the appropriateness of your identified BMPs for this minimum control measure. Your evaluation shall verify compliance with permit requirements and more importantly, document that efforts have been made towards achieving your identified measurable goals and reducing the impacts of stormwater runoff from the small MS4. Document the evaluation of your illicit discharge detection and elimination program annually as required by Part VI.C of this Permit.*" Part V.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each IDDE BMP. These are listed in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from individuals and stakeholders in the general public and from agencies and organizations involved with the IDDE program. Feedback from the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of education events will be recorded in writing. The City of Warr Acres will record all pollution abatement episodes as described in the SWMP, including date, location, pollutant, observations, measurements, interviews, photos, field form data, abatement steps taken, and results of each investigation. The increased number of pollution discharge quantities removed from the environment over a period of several years of BMP implementation and inspections conducted should demonstrate effectiveness of this MCM.

III.D. MCM 4: Construction Site Stormwater Runoff Control:

The City of Warr Acres will implement a comprehensive education, inspection and enforcement program to address the pollution of stormwater runoff from active construction sites. The City of Warr Acres has developed an ordinance prohibiting the discharge of pollutants and sediment from construction sites, and require the deployment of adequate sediment and erosion control measures. The MS4's code compliance officer, building inspector and other staff will perform periodic site inspections for compliance with local stormwater codes either as part of other construction inspections or in response to complaints about site runoff contamination.

III.D.1 Best Management Practices for Construction Site Runoff Control

The City of Warr Acres will use a number of Best Management Practices (BMPs) to implement an effective erosion and pollutant control program for active construction sites. Appendix A provides a description of each BMP, along with Measurable Goals and schedule of implementation. The BMPs presented in Appendix A include an education component, and include administrative actions, such as ordinance development. There are also BMPs for performing inspections and taking enforcement actions.

III.D.2 Ordinance

OKR04 Part V.C.4.a.i requires the MS4 to develop an ordinance to control erosion and sediment at construction sites. The City of Warr Acres has adopted an ordinance, Ordinance 1076 (September 15, 2009) (Title 13 Chapter 13.02 Storm Water Drainage Program) prohibiting construction related discharges to the MS4. The ordinance will be periodically evaluated and modifications made as needed. The ordinance will mirror requirements contained in ODEQ's statewide stormwater permit for construction activities (OKR10). Local ordinance adoption and updating will involve:

a. An ordinance review and update action will be taken during the first year of OKR04 authorization.
b. The initial process will compare model construction ordinances to existing City ordinances and drafting modifications that will be needed to local codes;
c. Inspection and administrative staffing needs will be assessed, and additional resources will be sought, if needed, to ensure that the City will be able to implement all provisions in the ordinance;
d. Local construction codes and ordinances will be updated as needed;
e. Key staff persons will be identified to manage all inspection and enforcement activities; and
f. Program effectiveness will be assessed annually, and changes made to the program pertaining to ordinance requirements and City resources and manpower.

III.D.3 Plan to Ensure Compliance by Site Operators

OKR04 Part V.C.4.a requires the MS4 to, "*implement and enforce requirements for construction site operators to implement BMPs for erosion and sediment control*". Part IV.C.4.a(3) requires the MS4 to, "*implement and enforce requirements for construction site operators to … control waste at the construction site…*". The City of Warr Acres will take the following actions to address construction related activities as defined in OKR04 to ensure that construction site operators implement proper erosion and sediment control measures and control wastes at construction sites. These will include:

a. Provide education materials for construction site operators that they will be required through local ordinance to establish erosion and sediment controls and controls of site waste;

b. The MS4 will incorporate this education into the initial plan review and building permit application process;

c. The MS4 will establish guidelines and requirements for erosion and sediment control Best Management Practices (BMPs) and methods to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste; and

d. The MS4 will ensure compliance from site operators through the site inspection and enforcement process. Increasing severity of penalties will result when corrective action has been ignored or not fully achieved.

III.D.4 Procedures for Site Plan Review

OKR04 Part V.C.4.a(ii) requires the MS4 to, "*develop, … implement and enforce procedures for site plan review which incorporate consideration of potential water quality impacts*…". To meet this OKR04 permit requirement, the City of Warr Acres will take the following actions:

a. Include in the MS4's regular site plan review process additional steps to ensure that the draft plans are consistent with local erosion and sediment control requirements;

b. Require all new development and redevelopment construction plans to consider potential impacts on water quality from construction activities. Areas to be addressed include sediment and erosion control and control of on-site wastes that can impact water quality.

c. Ensure that the proposed construction plans and activities are in compliance with local floodplain ordinances.

III.D.5 Procedures for Public Input

OKR04 Part V.C.1.a.ii.3.b requires the MS4 to, "*implement and enforce procedures for receipt of and consideration of information submitted by the public*". The City of Warr Acres will establish the following administrative process for taking input from the public:

a. Designating one or more MS4 staff as the primary contact person for stormwater communications from the general public;

b. Creating and periodically updating as needed a written and/or computer based form that allows efficient collection of the information being provided from the public;

c. Educating MS4 staff on how to coordinate contacts from the public with the designated MS4 staff person.

d. Processing of input from the public will be allowed from all sources, including emails, letters, faxes, phone calls and personal contacts;

e. The MS4 will document the response actions taken to resolve each request for assistance; and

f. The public input program will be part of the annual program assessment for the Annual Report and include evaluating success and follow-up actions taken on unresolved problems.

III.D.6 Construction Site Inspections

OKR04 Part V.C.a.ii.(3c) requires the MS4 to, "*implement and enforce procedures for site inspection and enforcement of control measures*". To comply with this requirement, the City of Warr Acres will develop a program for inspection of construction sites. Stormwater control inspections will be performed by the MS4 code compliance official or building official and their qualified designates. Inspections will be performed when a complaint is received from the public about a stormwater pollution incident, and periodically during the other MS4 construction inspection activities. The following stormwater inspection procedures will be used:

a. A stormwater inspection form will be created and periodically updated as needed to document inspection results of each site visit;

b. Stormwater inspection staff will be identified and trained to perform stormwater inspections.

c. A stormwater inspection will be conducted whenever a complaint is received, and periodically during the routine construction inspections by the MS4 inspector;

d. The stormwater inspection form will document the adequacy of the erosion and sediment control measures being used and note any remedial action needed;

e. Inspection data from the forms as well as all follow-up actions, including enforcement, will be entered into a computer and also stored in paper files;

f. Enforcement will rely upon initially encouraging remediation by the construction owner / operator, followed by a warning to remediate within a reasonable time, followed by issuance of a fine under authority of the local ordinance; and

g. Any immediate and significant threat to health, safety or the environment will be enforced immediately using best professional judgment of the inspector and/or administrative or public works management, including police and fire personnel, as the situation merits. ODEQ will be notified as deemed necessary to report the violation for OKR10 enforcement.

III.D.7 Management Responsibility

The City of Warr Acres has overall project management responsibility. The Stormwater Coordinator will coordinate all local activities and implementation of all program elements.

III.D.8 Evaluating Program Effectiveness

OKR04 Part VI.1.a requires the MS4 to, "*Evaluate the appropriateness of your identified BMPs for this MCM. Your evaluation shall verify compliance with permit requirements and more importantly, document that efforts have been made towards achieving your identified measurable goals and reducing the impacts of stormwater runoff from the small MS4 (as required by Part V.C of this Permit.)*" Part V.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each construction site control BMP. These are listed in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from individuals and stakeholders in the general public and from agencies and organizations involved with the construction site control program. Feedback from the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of education events will be recorded in writing. The City of Warr Acres will record all construction site inspections and pollution abatement episodes as described in the SWMP, including date, location, pollutant, observations, measurements, interviews, photos, field form data, abatement and enforcement steps taken, and results of each investigation. The increased number of pollution discharge quantities removed from the environment over a period of several years of BMP implementation and inspections conducted should demonstrate effectiveness of this MCM.

III.D.9 7th MCM Optional Permit Requirements for City Construction

The City of Warr Acres has elected not to use this alternative provided in Part VIII of OKR04 relating to construction activities on land owned by the MS4 and to activities that are directly controlled by the City of Warr Acres.

III.E. MCM 5: Post-Construction Management:

Post-construction stormwater management in new development and redevelopment focuses on implementation of controls and practices that are designed to maintain good water quality conditions after an area has been developed and after construction activities have been completed.

III.E.1 Best Management Practices for Post Construction Runoff Control

OKR04 Part V.C.5.a requires the MS4 to develop, "*strategies which include a combination of structural and/or non-structural BMPs appropriate for your community*". Appendix A lists the BMPs that will be used by the City of Warr Acres to address the Post-Construction MCM including the Measurable Goals and implementation schedules for each BMP.

BMP Strategy: The City of Warr Acres has developed the following strategy for addressing post- construction control of runoff:

a. Attempt to maintain pre-development runoff conditions;

b. Ensure that controls are in place that will prevent or minimize water quality impacts;

c. Define pre-development not as conditions that existed before any manmade disturbance, but rather the condition of development that exists just prior to commencing the present development activities;

d. Develop and implement structural and/or non-structural BMPs appropriate for the MS4 community;

e. Implement BMPs that are appropriate for the local site conditions and selected to minimize water quality impacts;

f. Review local codes and ordinances and identify barriers to Low Impact Development (LID), and remove those barriers that are incompatible with local community standards;

g. Develop and Implement a program that ensures adequate long-term operation and maintenance of the BMPs;

h. Develop and implement an education program for developers and the general public about the benefits of LID; and

i. Encourage and provide incentives for implementation of LID practices by private developers before and during the building permit application and pre-design phases of projects.

Additional details of the Post-Construction BMP Strategy are presented below.

III.E.2 Ordinance

OKR04 Part V.C.5.a.i requires the MS4 to develop a Post-Construction ordinance to control pollutants in runoff from the final project once construction has been completed. The City of Warr Acres will adopt a Post-Construction ordinance which will be assessed and updated in the future as needed. Local ordinance adoption and updating will involve:

a. An initial ordinance development and update action will be taken during the second year of OKR04 authorization.

b. The initial process will compare model construction ordinances to existing City ordinances and drafting modifications that will be needed to local codes in the near future;

c. Inspection and administrative staffing needs will be assessed, and additional resources will be sought, if needed, to ensure that the City will be able to implement all provisions in the ordinance;

d. Local construction codes and ordinances will be updated as needed;

e. Ordinance effectiveness will be assessed annually, and changes made when necessary.

III.E.3 Review Local Codes for LID Barriers

OKR04 Part V.C.5.a(iii) requires the MS4 to, "*Review local ordinances and regulations, and identify any legal/regulatory barriers to Low Impact Development (LID). Develop a schedule to remove those barriers that prohibit LID practices selected by the MS4, or provide a justification for each barrier not removed*". The City of Warr Acres will comply with this requirement by taking the following actions:

a. Educate MS4 staff on LID practices and on the types of requirements in local codes that are barriers to implementing certain types of LID;

b. Identify all of the local codes, policies, guidance and ordinances that must be reviewed.

c. Review each of these, and list all LID-related provisions that must be considered further.

d. Decide whether or not the LID-related provision in each code is a barrier to LID implementation.

e. Assess each of the LID barrier code provisions that can be deleted or modified to make LID implementation possible or more beneficial.

f. Prepare a summary of findings of the code research, including a list of recommendations for code changes.

g. Develop a schedule for making the recommended code changes. Priorities can be assigned to the list of LID barriers to be removed, and the schedule can be done in phases. All changes must be implemented within four years of the effective date of OKR04.

h. For each code the MS4 determines should not or cannot be changed, prepare a written justification as to why the barrier must stay in place.

III.E.4 BMP Long-Term Operation and Maintenance (O&M)

OKR04 Part V.C.5.a.ii requires the MS4 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, including inspections of each BMP*". ODEQ considers that this provision shall apply to both privately owned and public facilities, and that the provision applies to all types of flood control projects, including detention basins, not just to LID-type projects. ODEQ also considers that the inspections should be conducted as visual observations of each facility's condition and adequacy of maintenance. Characteristics of the inspections are presented below.

O&M Inspection and Enforcement Program: The City of Warr Acres will comply with this permit requirement by taking the following actions:

a. Summarize all limitations and exclusions under existing codes and ordinances pertaining to entry on private property by the MS4. This will include the following:
    1) Research MS4 codes and ordinances and identify all rights and obligations of private owners to maintain the BMPs that will be included in this permit requirement.
    2) Compile a list of actions the MS4 can take under existing MS4 codes and ordinances to enforce O&M of privately owned BMPs.
    3) Determine the MS4's authority under existing codes and ordinances regarding the rights of entry to perform inspections of privately owned BMPs. This will include delineating any MS4 rights-of-way and easements that may apply to the private structure.
b. Compile a list of all LID and flood control structures within the MS4 that are to be assessed.
c. Research basic data and information about each structure, such as:
    1) Ownership of property and responsible party for maintenance.
    2) Type of structure.
    3) Purpose of structure and any associated land uses served by the structure (e.g., subdivision or commercial center).
    4) Watershed in which structure is located.
    5) Age and present estimated condition of structure.
d. Prepare inspection schedules based upon priority of importance for protecting water quality.
e. Conduct visual inspections of each structure according to priority schedule; including:
    1) Mowing and weeding;
    2) Sediment buildup and erosion;
    3) Fencing, pathways, signage, public safety;
    4) Evidence of vandalism;
    5) Structural integrity;

6) Vegetation health, ground cover, rock, concrete surfaces;
7) Inlet and Outlet damage, blockage, condition;
8) Debris, tree limbs, trash buildup;
9) Function of pervious surfaces.

f. MS4-Owned Structures: Schedule and acquire resources and funding for making any needed repairs or upgrades.

g. Privately-owned Structures: Within the authority granted by local codes and ordinances, negotiate with the private responsible party on the types of maintenance and upgrades that the MS4 has determined are needed, and take any enforcement actions allowable under local codes and ordinances for failure of the responsible party to perform the required tasks.

III.E.5 Education Program for Developers and the Public

OKR04 Part V.C.1.a.ii(4) requires the MS4 to, "*Participate in an education program for developers and the public about project designs that minimize water quality impacts, including LID strategies*". The City of Warr Acres participates in the Central Oklahoma Storm Water Alliance (COSWA) website (www.coswa.wordpress.com) contains a number of public education materials and information about protecting water quality.

The City of Warr Acres helps sponsor water quality conferences and workshops that target developers and the public about water quality protection at construction sites, household chemicals, urban stormwater pollution issues by being a member of COSWA. Several of these MS4 activities are listed in Appendix A as specific BMPs under the Public Education and Public Participation MCMs.

III.E.6 Management Responsibility

The City of Warr Acres has overall project management responsibility. The Stormwater Coordinator/Mayor/designee/consultant will coordinate all local activities and implementation of all program elements.

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III.E.7 Evaluating Program Effectiveness

OKR04 Part VI.C requires the MS4 to, "*Evaluate the appropriateness of your identified BMPs for this MCM. Your evaluation shall verify compliance with permit requirements and more importantly, document that efforts have been made towards achieving your identified measurable goals and reducing the impacts of stormwater runoff from the small MS4 (as required by Part V.C of this Permit.)*" Part VI.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each post-construction BMP. These are listed in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from individuals and stakeholders in the development community, the general public and from agencies and organizations involved with construction and post-construction. Feedback from developers, the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of education events will be recorded in writing. The City of Warr Acres will record all post-construction site inspections and structural maintenance and improvements as described in this SWMP, including date, location, affected pollutants, observations, measurements, interviews, photos, field form data, abatement and enforcement steps taken, and results of each investigation and maintenance project. The increased number of structural maintenance and improvements made over a period of several years of BMP implementation and inspections conducted should demonstrate effectiveness of this MCM.

III.F. MCM 6: Pollution Prevention / Good Housekeeping for MS4 Operations:

The "Pollution Prevention / Good Housekeeping For MS4 Operations" Minimum Control Measure (MCM) addresses the operation and maintenance (O&M) of the MS4 and municipal facilities, and requires training of municipal employees. Performing municipal activities in a careful and proper manner prevents or reduces pollutant runoff. Municipal operations addressed by this "Good Housekeeping" MCM include parks and open space maintenance, buildings for storage and maintenance of fleet vehicles and other public works vehicles and equipment, new construction and land disturbances, and stormwater system maintenance.

The City of Warr Acres will address OKR04 Part V.C.6.a requirements with the following program. Appendix A contains a list of all BMPs for the Good Housekeeping MCM, along with Measurable Goals and implementation schedules for each BMP.

III.F.1 Employee Training and Education Program

OKR04 Part V.C.a.ii (5) requires the MS4 to implement, "*employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance*". OKR04 Part V.C.6 requires the MS4 to implement, "*a municipal employee training and education program that you will use to prevent and reduce stormwater pollution from MS4 activities*". The following actions will be taken by the City of Warr Acres to meet these permit requirements:

a. The City of Warr Acres may select one of the following topics for annual employee training:
    1) Park and open space maintenance;
    2) Fleet and building maintenance;
    3) New construction and land disturbances;
    4) Stormwater system maintenance;
    5) Urban water quality, pollution and OKR04 requirements;
    6) Construction permit requirements under OKR10;
    7) OSHA requirements on MSD forms and labels;
    8) Storage and disposal of chemicals at city facilities; and
    9) Reporting of local pollution to municipal officials.

b. The City of Warr Acres will place several signs in work areas noting the proper way of disposing of waste materials.

Appendix A lists a number of employee training BMPs and BMPs for public education and outreach that include topics important for the Good Housekeeping MCM.

III.F.2 List of Industrial Permitted Facilities:

Part V.C.6.a(ii) requires the MS4 to, "*Maintain a list of industrial facilities you own or operate that are subject to the DEQ Multi-Sector General Permit or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to your small MS4*". The following facilities are owned and operated by the City of Warr Acres that are subject to the ODEQ Multi-Sector General Permit for Industrial Activities (OKR05) or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the MS4:

Facility	Location / Address	Facility ID Number	Individual OPDES/NPDES Permit Number	OKR05 Authorization Number
None within Warr Acres City Limits				

OKR04 Part V.C.6.a.ii) requires that, for each facility, the MS4, "*Include the authorization number or a copy of the Industrial NOI form for each facility. You must review this inventory annually and update as necessary*". The authorization number (OKR05 permit number assigned by ODEQ) for each facility, if applicable, is provided above. The City of Warr Acres will review the status of each permitted municipal facility annually and update the SWMP information as needed.

III.F.3 Controlling Pollutants from MS4 Systems and Facilities

Part V.C.6.a requires the MS4 to, "*Implement procedures for controlling, reducing or eliminating the discharge of pollutants from streets, roads, highways, parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas you operate*".

To comply with this OKR04 requirement, the City of Warr Acres will implement a program to control, reduce or eliminate pollutants discharged from the MS4. The following areas will be addressed:

- City streets and roads;
- Municipal parking lots;
- City maintenance and storage yards;

- City fleet maintenance shops with outdoor storage areas;
- municipal salt/sand storage locations; and
- municipal snow disposal areas.

List of MS4 Facilities: The following facilities are owned by the City of Warr Acres and are subject to the requirements of this MCM:

Facility	Location / Address	Notes
City Hall	4301 N Ann Arbor Ave	Office building, vehicles, parking lot.
Police Department	4301 N MacArthur Blvd	Office building, vehicles, parking lot.
Fire/EMSA Department	6045 NW 49th St	Office building, vehicles, parking lot.
Warr Acres Library	5901 NW 63rd St	Parking lot, public building.
Public Works Yard Sanitation, Parks, Streets	6045 NW 50th St	Office, vehicles, equipment, parking lot, storage buildings.
WA Animal Shelter	5301 Hammond Ave	Office building with kennels & yard.
Ann Arbor Lift Station	3809 N Ann Arbor Ave	Unmanned sewer pumping station.
Grove Lift Station	4907 N Grove Ave	Unmanned sewer pumping station.
43rd Lift Station	4536 NW 43rd St	Unmanned sewer pumping station.
Cherokee Hills Park	6613 Cherokee Dr	4.8 acres – tennis, pickle, basketball courts, 2 pavilions, bathrooms, playground equipment
Frank Woods Park	6818 Comanche Ave	Pavilion, playground equipment
Baker/Kiwanis Park	4705 Reeves Dr	Pavilion, playground equipment
Dorthy Cavendar Park	5301 Hammond	1 acre grassed area
Tom Smith/56th & Redmond Parks	6025 NW 56th St	Picnic tables, benches and playground equipment
Jessie Simmons Park	3400 N Hammond Ave	Vacant grass area, 1.8 acres
Detention Pond	6042 NW 50th St	0.23 acre detention pond
Railroad Property	"NW 38th St" between N Ann Arbor Ave and N Grove Ave	1.79 acres abandoned railroad property

Procedures for Controlling Pollutants: The facilities listed above all pertain to the requirements in OKR04 Part V.C.6.a. They are herein categorized as to Municipal Facilities (e.g., buildings, parking lots, storage yards, etc.), and MS4 System (e.g., roads, streets, roadside ditches, culverts, and large stormwater conduits). The City of Warr Acres will take the following actions to reduce or eliminate pollutants from these systems and areas.

Municipal Facilities:

a. The City of Warr Acres will perform an initial inspection of its facilities to determine potential pollutant sources via stormwater into the MS4;

b. Where possible, all exposed materials will be moved under removable covers (e.g., tarps) or inside a building to prevent contact with stormwater runoff.

c. For those materials that cannot be sheltered, such as salt piles for snow removal, structural BMPs will be used where feasible to control contaminated runoff from the storage areas. These will include use of silt fencing, grassy swales, sediment ponds and/or other measures as deemed appropriate.

d. At least once a year, an inspection of these areas will be made to ensure that the BMPs and storage controls are deployed properly and working.

MS4 System:

a. The public education MCM is expected to reduce the amount of trash and chemical pollutants placed on city streets. This program will include educating citizens about not disposing of chemicals and yard waste into the streets and drop inlets.

b. The City of Warr Acres owns its' street sweeper that is used at least one time per year to remove floatables, trash and sediment from streets.

c. MS4 Public Works crews will be trained to report observed pollution problems and/or trash buildup on city streets and in the City's stormwater collection system. When reported, MS4 crews will remove debris and trash from streets and the MS4 system as necessary.

d. Removed debris and waste materials will be disposed of by transporting the material to the solid waste collection facility. The City currently uses Waste Connections south Council landfill for the disposal of residential trash collected by Warr Acres Public Works. The material to be disposed of includes street sweeper collections, dredged material from drainage systems and creeks, sediment cleanups from streets and lots, floatables removed from culverts and streams, materials from drop inlet cleanouts, and other types of debris removed from the MS4 system.

III.F.4 New Flood Management Projects

Part V.C.6.a(iv) requires the MS4 to, "*Implement procedures to ensure that new flood management projects are assessed for impacts on water quality*". The City of Warr Acres will ensure that all municipally-owned new flood management projects are assessed for impacts on water quality. The City's Floodplain Administrator and Public Works staff will evaluate each proposed new municipal project for potential water quality impacts during the technical review of the proposed project plans and specifications. If it is feasible and cost effective to add water quality protection features to the project design, a recommendation will be made to incorporate the features before final plans are developed.

III.F.5 Inspection and Maintenance of BMPs

OKR04 Part V.C.6.a(vi) requires the MS4 to, "*Implement inspection/maintenance for 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 your small MS4*". This OKR04 requirement applies to municipally owned facilities under the Good Housekeeping MCM. Structural BMPs at municipal facilities include sediment basins, various types of containers for disposal of wastes and fluids, constructed swales and shallow depressions designed to collect runoff and allow infiltration, wet and dry detention basins having inlet and outlet structures, and various types of pervious surfaces used in parking lots and storage areas that allow infiltration of runoff.

Non-structural BMPs at municipal facilities include stormwater-related programs implemented by the City of Warr Acres, including: preservation of open space; expanding disconnections of impervious surfaces; expansion of vegetation and natural systems; natural grass swales and other types of unconstructed, vegetated infiltration areas; and protection and expansion of riparian stream buffers.

BMP Maintenance: Structural BMP maintenance will be according to need and availability of funds and resources. High maintenance priority will be given to structures that have the greatest potential to improve water quality and have a high feasibility of success using available funds. Maintenance will be scheduled upon acquisition of funds and materials, and when manpower and necessary permits are obtained. Projects that have a low chance of improving water quality after maintenance will be considered for replacement or decommissioned. The City of Warr Acres will make every effort to address maintenance issues identified in the BMP inspection program. Non-structural BMP maintenance, such as assessing ordinance effectiveness, will be made annually.

BMP Inspections: The City of Warr Acres will inspect structural BMPs annually or within 24 hours after a report of a stormwater contamination problem at a municipal facility. Inspections of structural BMPs will rely upon visual indicators, such as accumulation of trash and debris, breaks and cracks, misalignments of headwalls and inflow and outflow devices, excessive accumulation of sediment, excessive erosion of slopes, failure of fencing and other public safety features, etc. Inspections of non-structural BMPs will consist of annual reviews of stormwater programs and the corresponding codes and ordinances, and annual inspections of natural features within the MS4 such as riparian areas along creeks and natural swales and infiltration areas.

Results of all inspections and maintenance will be reported to the stormwater staff and recorded in computer and paper files. The Annual Report will include a summary of these activities.

III.F.6 Best Management Practices for Good Housekeeping

Appendix A contains a list of all BMPs that will be performed for this MCM, and includes Measurable Goals and implementation schedules for each BMP.

III.F.7 Management Responsibility

The City of Warr Acres has overall project management responsibility. The Stormwater Coordinator/Mayor/designee will coordinate all local activities and implementation of all program elements.

III.F.8 Evaluating Program Effectiveness

OKR04 requires the MS4 to, "*Evaluate the appropriateness of your identified BMPs for this MCM. Your evaluation shall verify compliance with permit requirements and more importantly, document that efforts have been made towards achieving your identified measurable goals and reducing the impacts of stormwater runoff from the small MS4 (as required*

by Part V.C of this Permit.)" Part V.C is the requirement to submit an Annual Report. The City of Warr Acres will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each Good Housekeeping BMP. These are listed in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Warr Acres to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from city staff, the general public and from agencies and organizations using city owned facilities and impacted by the MS4 system conditions. Feedback from city staff, the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of education events will be recorded in writing. The City of Warr Acres will record results of all Good Housekeeping site inspections and structural maintenance and improvements as described in this SWMP, including date, location, affected pollutants, observations, measurements, interviews, photos, field form data, abatement and enforcement steps taken, and results of each investigation and maintenance project. The increased number of structural maintenance and improvements made over a period of several years of BMP implementation and inspections conducted should demonstrate effectiveness of this MCM.

APPENDIX A: BEST MANAGEMENT PRACTICES FOR THE SIX MCMs

TABLE 1: BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACTICES TO ADDRESS MINIMUM CONTROL MEASURES	MCM1	MCM2	MCM3	MCM4	MCM5	MCM6
MCM 1 PUBLIC EDUCATION AND INVOLVEMENT						
1A Make pollution control brochures for homeowners available at City Hall Lobby. *(Note 1)*	X					
1B Make pollution control brochures for businesses available at City Hall Lobby. *(Note 1)*	X					
1C Make pollution control brochures for restaurants available at City Hall Lobby. *(Note 1)*	X					
1D Distribute give-away items with stormwater logo for use with table-top display. *(Note 2)*	X					
1E Use display board with education materials at community events, meetings and City Hall.	X					
1F Run public service announcement on urban stormwater protection through YouTube Channel/COSWA/website link.	X					
1G Revise and update the existing public education and outreach program.	X					
1H Print one article about stormwater quality on city generated newsletter that is mailed with the monthly utility bill.	X					
1I Give presentations to City Council on stormwater permit program.	X					
1J Update city website for public education and outreach.	X					
1K Collect number of contacts made by the public due to reading educational materials.	X		X		X	
1L Comply with all state and local public notification requirements.	X					

BEST MANAGEMENT PRACTICES TO ADDRESS MINIMUM CONTROL MEASURES	MCM1	MCM2	MCM3	MCM4	MCM5	MCM6
1M Process to receive public comments on the SWMP	X					
1N Make SWMP available to the public, and assist with notifications by ODEQ as needed.	X					
1O Take advice from citizens and businesses during public meeting presentations.	X					
1P Mark storm drains with medallion that addresses no dumping into stormwater inlets.	X		X			
1Q Host/support local stream/lake cleanup event.	X					
1R Inform residents of agreement with OKC for local house hold hazardous waste collection events and disposal facility.	X		X			
1S Promote use of regional and local recycling centers for materials and chemicals.	X		X			
1T Implement program to receive pollution and spill episode information from the public.	X		X			
MCM 2 INDUSTRIAL STORMWATER RUNOFF CONTROL						
2A Maintain and annually update list of industrial facilities subject to OKR05		X				
MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)						
3A Adopt and periodically update an IDDE ordinance or local code to control pollution.			X			
3B Implement a Dry Weather Field Screening (DWFS) inspection program. *(Note 4)*			X			
3C Implement a source tracking inspection and enforcement program. *(Note 4)*			X			
3D Develop an MS4 system map showing outfalls, Waters of the State and MS4 structures.			X			
3E Control pollution from on-site sewage disposal systems that may flow into the MS4. *(Note 5)*			X			
3E Inspect minimum of 25% of city businesses for any illicit discharges and report any violations found and corrected.			X			
3F Control pollution from sanitary sewer overflows and bypasses. *(Note 5)*			X			
3G Provide annual summary of pollutants collected by city crews and recycling.			X			X
3H Use city website and brochures to inform the public about improper waste disposal.	X		X			

BEST MANAGEMENT PRACTICES TO ADDRESS MINIMUM CONTROL MEASURES	MCM1	MCM2	MCM3	MCM4	MCM5	MCM6
3I Inform residents in newsletter about access to OKC Household Hazardous Waste Facility	X		X			
3J Implement a floatable trash and debris removal program for local streams and MS4.			X			
3K Train city field workers to inspect for, identify and report pollution. *(Note 6)*			X			
3L Develop 303(d) priority areas for pollution source inspections and update as needed. IV.A.1.d			X			
3M Conduct pollutant source inspections in 303(d) high priority areas. IV.A.1.d			X			
3N Implement a comprehensive bacteria 303(d) pollutant reduction plan if required per IV.A.1.h	X	X	X			
3O Identify significant non-stormwater discharges that contribute to impaired waters. IV.A.1.c			X			
3P Maintain a list of occasional incidental non-stormwater discharges.			X			
MCM 4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL						
4A Adopt and update a construction ordinance or local code to control pollution.			X	X		
4B Implement program for site plan review for assessing project's water quality impacts.			X	X		
4C Implement program to receive information from the public on construction site pollution.	X	X	X	X		
4D Implement a construction site inspection and enforcement program. *(Note 4)*			X	X		
4E Employee training on conducting inspections. *(Note 6)*			X	X		

BEST MANAGEMENT PRACTICES TO ADDRESS MINIMUM CONTROL MEASURES	MCM1	MCM2	MCM3	MCM4	MCM5	MCM6
4F Implement program to address construction less than 1 acre disturbance.			X	X		
4G Develop requirements for construction site operators to implement sediment and erosion BMPs.			X	X		
4H Develop requirements for construction site operators to control wastes at sites.			X	X		
MCM 5 POST-CONSTRUCTION MANAGEMENT IN NEW AND RE-DEVELOPMENT						
5A Adopt and update a post-construction ordinance or local code for post-construction runoff.					X	
5B Review local codes; identify barriers to LID; remove them and justify those not removed.					X	
5C Develop long-term Operation & Maintenance Plan for municipal BMPs.					X	X
5D Provide brochures for builders on construction and post-construction strategies and LID.	X		X		X	
5E Encourage infill development in high density urban areas.					X	
5F Develop structural BMPs, such as for filtration and storage, for city-owned projects.				X	X	X
5G Promote LID and other construction BMP's	X			X	X	
MCM 6 POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MS4 OPERATIONS						
6A Develop procedures for controlling pollution from streets, storage areas and other city facilities.						X
6B Develop procedures for proper use, storage and disposal of chemicals at municipal facilities. *(Note 6)*						X
6C Maintain and update a list of all municipal facilities subject to OKR05 or OPDES permits.						X
6D Develop procedures for controlling pollution from streets, storage areas and other city facilities.						X
6E Develop procedures to assess impacts on water quality from new flood management projects.					X	X

BEST MANAGEMENT PRACTICES TO ADDRESS MINIMUM CONTROL MEASURES	MCM1	MCM2	MCM3	MCM4	MCM5	MCM6
6F Assess existing flood management projects to see if additional protection is needed.						X
6G Implement inspection program of city facilities' structural and nonstructural BMPs.						X
6H Implement maintenance program of city facilities' structural BMPs.						X
6I Develop an inventory of all MS4 operations subject to OKR04 and update as needed.						X
6J Develop procedures for storage and maintenance of city vehicles and equipment.						X
6K Develop procedures for inspection and maintenance of catch basins, streets, parking lots, etc.					X	X
6L Display pollution prevention signs at city work areas (see Table D).						X
6M Implement street sweeping program.						X
6N Implement storm drain inlet cleanout program.						X
6O Provide monthly recycling program for collecting local steel cans, aluminum, plastics and cardboard.						X

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Note 1: Brochures include, pamphlets, flyers, fact sheets, and booklets. See Table A for present list of materials used by City of Warr Acres.

Note 2: Give-Away Items with Warr Acres logo and website: cups, pens, water bottles.

Note 3: Street Signs are metal signs with image of an aquatic theme with a message about protecting the watershed.

Note 4: Types of inspections and monitoring for all MCMs are listed in Table B.

Note 5: Pollution controls include a combination of public education, employee training, MS4 inspections and enforcement.

Note 6: Employee Training workshop topics are presented in Table C.

TABLE A: List of Brochures, Fact Sheets and Education Materials

Education Materials Used By the City of Warr Acres * under development
General Public and Community:
EPA: After the Storm
EPA: Plug Into E-Cycling
EPA: Protecting Water Quality from Urban Runoff
EPA: The Solution to Pollution
EPA: Stormwater Structures and Mosquitoes Fact Sheet
GCSA: Oil, Grease and Fat
GCSA: How to Protect Your Local Watershed
Residential and Homeowner:
EPA: Greenscaping Your Lawn & Garden
EPA: Household Hazardous Waste: Steps to Safe Management
GCSA: Community Car Wash Events Fact Sheet
GCSA: A Homeowner's Guide to Protecting Our Water
GCSA: A Homeowner's Guide to Recycling and Reuse
GCSA: A Pet Owner's Guide to Protecting Our Water
Municipal Employee and City Officials:
GCSA: Phase II Stormwater: Information for City and County Officials
GCSA: Handling and Disposal of Chemicals at Municipal Sites
GCSA: Green Country Stormwater Alliance
GCSA: Municipal Best Management Practices that Protect Our Water
Local Retailers and Businesses:
GCSA: A Retailers Guide to Pesticide Basics
GCSA: A Food Service Guide to Waste Disposal
Construction Industry:
GCSA: Final Stabilization at Construction Sites: OKR10 Requirements
GCSA: A Homebuilder's Guide to Erosion Control

**** New materials for additional topics will be produced periodically.***

TABLE B: OKR04-Required Types of Inspections and Monitoring

Types of Inspections and Monitoring Performed by the City of Warr Acres
Dry Weather Field Screening (DWFS) inspection program
Complaint-response inspection program of the MS4 system
Source tracking inspection program of pollutants in MS4 system
Construction site inspection program
Good housekeeping inspection program of city properties
Inspection program of pollutants of concern in high priority areas
Inspection program for catch basins, streets, parking lots, etc.

TABLE C: Employee and Community Training Topics

Training Topics Given for the City of Warr Acres Employees & Officials * under development
Urban water quality, pollution and stormwater permit requirements
Data quality and data management
Conducting inspections and monitoring; field safety
Hazardous Waste Operations and Emergency Response (HAZWOPER)
Test kits and environmental chemistry basics
Stormwater 101 for new employees and city officials
BMPs, low impact development (LID), and post-construction
TMDLs and 303(d) impaired waterbodies
Construction permit requirements and changes to OKR10
OSHA required training on MSDS forms and container labels

CLEET and environmental law for stormwater enforcement
Municipal parks and open space maintenance pollution control
Storage and disposal of chemicals at city facilities
Pollution control at municipal fleet maintenance
Pollution control for municipal land disturbance activities
Pollution control for MS4 maintenance (streets and drainage)
Looking for and reporting local pollution episodes by city crew and staff

TABLE D: Types of Pollution Signs Used at City Work Areas

Pollution Prevention Sign Topics Used by the City of Warr Acres
Keep Dumpster Lids Closed
Do Not Dispose of Waste – Drains to Creek – medallions glued to storm inlets without message molded into inlet casting.
Dispose of Chemicals Properly
Clean Up Spills Immediately

APPENDIX A, TABLE 2: MEASURABLE GOALS AND IMPLEMENTATION SCHEDULES FOR EACH BMP IN TABLE 1

Numbers for each year represent quarters in which BMP will be deployed: 1st = Jan-Mar; 2nd = Apr-Jun; 3rd = Jul-Sep; 4th = Oct-Dec.

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and Effective
PUBLIC EDUCATION AND INVOLVEMENT V.C.1		(Part VI.C 1.d)	(Part VI.C 1.b.i)	(Part VI.C 1.e)	(Part VI.C1 b.ii)
1A Make pollution control brochures for homeowners available at City Hall Lobby. *(Note 1)*	Count number picked up	All Year	10 picked up in city hall lobby	Reorder stock & add new ones.	Increases awareness of homeowners about sources of stormwater contamination
1B Make pollution control brochures for businesses available at City Hall Lobby. *(Note 1)*	Brochures available for businesses to pickup at City Hall Lobby	All year	Include a blurb in attached newsletter sent with utility bill	None	Increases awareness to target audience
1C Make pollution control brochures for restaurants available at City Hall Lobby. *(Note 1)*	Develop FOG brochure for restaurants	All year	Include in utility bill	None	Increases awareness to target audience
1D Distribute give-away items with stormwater logo for use with table-top display. *(Note 2)*	100 items	All year	Purchase items with stormwater message or link	Order items in 2025	Increases awareness of stormwater
1E Use display board with education materials at community events, meetings and City Hall. (Note 2)	1 meeting, 2 weeks city hall	2nd	2nd	Post display board in CH lobby 2025	Yes
1F Run public service announcement on urban stormwater protection through YouTube Channel/COSWA/website link.	Twice per year	Research	New IT Company, joined COSWA	Scheduled PSA for 2025	Yes
1G Revise and update the existing public education and outreach program.	Once a year	4th	Reviewed	None	Provides current educational material is available to the public
1H Print one article about stormwater quality on city generated newsletter that is mailed with the monthly utility bill.	Twice per year	Calendar year	July, Aug, Sept, Dec	None	Sent to all current utility bill customers
1I Give presentations to City Council on stormwater permit program.	2 presentations	2x/year	Dec CC	None	Yes
1J Update city website for public education and outreach.	As needed	4th	Update Annually Website	Add items to website	Yes
1K Collect number of contacts made by the public due to reading educational materials.	Yearly	4th	None received	None	Yes

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and Effective
1L Comply with all state and local public notification requirements.	Compliance for all legal notices	All year	As required	None	Yes
1M Process to receive public comments on the SWMP	Record comments from phone calls, website or public meetings	All year	None Received	None	Provides city with feedback
1N Make SWMP available to the public, and assist with notifications by ODEQ as needed.	Available regular office hours, website	Dec	Available at city hall & city website	None	Educates and involves residents and creates a sense of ownership
1O Take advice from citizens and businesses during public meeting presentations.	Receive any comments after presentation	2x/year	None during the 12 CC meetings	None	Yes
1P Mark storm drains with medallion that addresses no dumping into stormwater inlets.	20 storm drains	4th	Completed with new medallions for replacement	None	Yes
1O Host/support local stream/lake cleanup event.	1 event	All year	1 cleanup	None	Yes
1Q Inform residents of agreement with OKC for local household hazardous waste collection events.	Newsletter in utility bill 2x	2x/year	August, September	None	Yes
1R Promote use of regional and local recycling centers for materials and chemicals.	City Council Monthly report	14 x	PW Monthly Report, 2 newsletters	None	Yes
1S Implement program to receive pollution and spill episode information from the public.	1 report, part of annual report	All year	1 received	None	Yes
MCM 2 INDUSTRIAL STORMWATER RUNOFF CONTROL V.C.2					
2A Maintain and annually update list of industrial facilities within WA city limits that are subject to OKR05	Update list annually	4th	Checked for new industrial facilities, none found	None	Yes
MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION V.C.3		(Part VI.C 1.d)	(Part VI.C 1.b.i)	(Part VI.C 1.e)	(Part VI.C1 b.ii)
3A Adopt and periodically update an IDDE ordinance or local code to control pollution.	Review once per year	Update as needed	Reviewed	None	Yes
3B Implement a Dry Weather Field Screening (DWFS) inspection program. *(Note 4)*	Inspect 40% of outfalls	All year	100 % inspected, Appendix I	None	Yes, checks likely areas for illicit discharges
3C Implement a source tracking inspection and enforcement program. *(Note 4)*	Record new construction projects for inspection	As needed	1 spill reported, not trackable	None	Yes

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and Effective
3D Develop an MS4 system map showing outfalls, Waters of the State and MS4 structures.	Paper map showing outfalls etc.	All Year	Reviewed paper map, revised as needed Appendix I	Hire Firm in 2025 to develop GIS map	Yes
3E Inspect a minimum of 25% of city businesses for any illicit discharges and report any violations found and corrected.	Inspect 100 of 360 businesses	Year	Inspected over 100 Businesses	None	Yes, fire dept inspects nearly 350 yearly
3F Control pollution from sanitary sewer overflows and bypasses. *(Note 5)*	Record overflows and report to DEQ and consultants	All Year	Obtained $10M OWRB loan & $10M sewer tax	Continue I & I repairs, seek additional funding	Yes, addressing I & I and assessing condition of system via CCTV
3G Provide annual summary of pollutants collected by city crews and recycling.	Amount collected during routine cleaning of ROWs	All Year	Collected estimated 400 cubic feet	None	Yes, removing pollutants before entering waterways
3H Use city website and brochures to inform the public about proper waste disposal and use of chemicals.	Number of household and businesses informed	All Year	3 times 360 businesses & 3300 households	None	Yes, informed households and businesses over 10,980 times
3I Inform residents in newsletter about access to OKC Household Hazardous Waste Facility	Inform in monthly newsletter mailed with utility bill	Twice a year	Included in August and December newsletters	None	Informs households of OKC HHWF
3J Implement a floatable trash and debris removal program for local streams.	Inspect Evans Lake spillway for floatable trash, debris	Inspect 1x Clean 1x	Inspected & removed debris one time	None	Yes
3K Train city field workers to inspect for, identify and report pollution. *(Note 6)*	1 training session	Yearly	Trained 1x	None	Yes
3L Determined 303(d) priority area(s) for pollution source inspection(s) and update annually.	Review DEQ website for any new 303d areas	4th	Reviewed DEQ website	None	As needed
3M Conduct pollutant source inspections in 303(d) high priority areas.	Conduct inspection(s) of 303d high priority area(s) as listed by DEQ	4th	Conducted inspection of high priority area	None	As needed
3N Implement a comprehensive bacteria 303(d) pollutant reduction plan as defined in OKR04 Part III.A.1g.	I & I Study, hydraulic model & CCTV of SS system by consultants to determine segments needing rehab/replacement/upgraded	All Year	Consultants, contractors working on tasks	None, tasks continued into 2025	Yes
3O Identify significant non-stormwater discharges of 303(d) pollutants.	Record any significant non-stormwater discharges, observed or reported	All Year	Review collected data annually	None	Yes
3P Control pollution from on-site sewage disposal systems that may flow into the MS4. *(Note 5)*	None known of, SS collection system in place	All year	Review annually	None	Yes
3Q Inspect a minimum of 25% of city businesses for any illicit discharges and report any violations found and corrected.	Inspect 25% of 369 businesses	All Year	Inspected over 300 businesses	None	Yes, on-site inspection checks for ID's

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and Effective
3P Maintain a list of occasional incidental non-stormwater Discharges (see section II.B)	Review list annually for any new non-stormwater discharges	4th	Reviewed Annually	None	Yes
MCM 4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL V.C.4		(Part VI.C 1.d)	(Part VI.C 1.b.i)	(Part VI.C 1.e)	(Part VI.C1 b.ii)
4A Adopt and update a construction ordinance or local code to control pollution.	Adopt, update	Update as needed	No updates needed	None	Yes
4B Implement program for site plan review for assessing project's water quality impacts.	All site plans are submitted to the city for review by a civil engr consultant(s)	All Year	Submitted site plans were reviewed	None	Yes
4C Implement program to receive information from the public on construction site pollution.	Procedures, forms	All Year	None reported	None	Yes
4D Implement a construction site inspection and enforcement program. *(Note 4)*	Inspection Form attached to Building Permit application for used during construction	All year	Available all year at City Hall	None	Yes
4E Employee training on conducting inspections. *(Note 6)*	Inspector or designee trained on EPA website	1st	Reviewed annually for training	None	Yes
4F Implement program to address construction less than 1 acre disturbance.	EPA SWPPP template for under 1 acre attached to Building Permit	All Year	Review Annually	Print and include with Building Permit	Yes
4G Develop requirements for construction site operators to implement sediment and erosion BMPs.	EPA SWPPP template for over 1 acre	All Year	Review Annually	Print and include with Building Permit	Yes
4H Develop requirements for construction site operators to control wastes at sites.	EPA SWPPP template for Over 1 acre	All Year	Review Annually	Print and include with Building Permit	Yes
MCM 5 POST-CONSTRUCTION IN NEW AND RE-DEVELOPMENT V.C.5		(Part VI.C 1.d)	(Part VI.C 1.b.i)	(Part VI.C 1.e)	(Part VI.C1 b.ii)
5A Adopt and update a post-construction ordinance or local code for post-construction runoff.	Adopt, update	Once per year	Update as needed	None	Yes
5B Review local codes; identify barriers to LID; remove them and justify those not removed.	City Ordinances does not prohibit LID	All Year	Review Annually	None	Removing barriers to LID is crucial to implementation of projects
5C Develop long-term Operation & Maintenance Plan for municipal BMPs.	Strategy, document	Update as needed	No updates needed	None	Yes
5D Provide brochures for builders on construction and post-construction strategies and LID.	Website Include links with Building Permits	All Year	Review LID links annualy	None	Yes

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and effective
5E **Encourage infill development** in high density urban areas.	City adopted TIF Districts to encourage new businesses	All year	Review TIF Plan 1 x year	None	Infill development can reduce urban sprawl which can impact stormwater quality
5F Develop **structural BMPs**, such as for filtration and storage, for city-owned projects.	Strategy, document	Update as needed	No updates needed	None	Yes
5G Promote LID and other construction BMP's.	Website links for LID	All Year	Include LID Summary with website links with Building Permit	None	Yes
MCM 6 GOOD HOUSEKEEPING FOR MS4 OPERATIONS V.C.6		(Part VI.C 1.d)	(Part VI.C 1.b.i)	(Part VI.C 1.e)	(Part VI.C1 b.ii)
6A Develop procedures for controlling pollution from streets, storage areas and other city facilities.	Good Housekeeping/Pollution Prevention Plan – Appendix H	1st	1 training session	None	Yes
6B Develop procedures for proper use, storage and disposal of chemicals at municipal facilities. ***(Note 6)***	Good Housekeeping/Pollution Prevention Plan – Appendix H	1st	1 training session	None	Yes
6C Maintain and update a **list of all municipal facilities** subject to OKR05 or OPDES permits.	List in SWMP, reviewed once per year	1st	Reviewed 4th	None	Yes
6D Develop procedures to **assess impacts** on water quality from **new flood management projects**.	Use WA Illicit Detection & Elimination Manual	All Year	Review for new projects	None	Yes
6F Implement **inspection program** of city facilities' structural and nonstructural BMPs.	All facilities once per year	All year	Annually	None	Yes
6G Implement **maintenance program** of city facilities' structural BMPs.	Good Housekeeping/Pollution Prevention Plan – Appendix H	1st	1 training session	None	Yes
6H Develop an **inventory of all MS4 operations** subject to OKR04 and update as needed.	List in SWMP, review once per year	1st	Develop	None	Yes
6I Develop **procedures for storage** and maintenance of city vehicles and equipment.	Good Housekeeping/Pollution Prevention Plan – Appendix H	1st	1 training session	None	Yes

BMP MEASURABLE GOALS AND IMPLEMEN TATION SCHEDULES	Annual Measurable Goal	2024	Activity	Adjustments	Appropriate and effective
6J Develop procedures for **inspection and maintenance** of catch basins, streets, parking lots, etc.	SOP for streets, parking lots & catch basins	1st	Implemented 1x training	None	Yes
6K Display pollution prevention **signs at city work areas** (see **Table D**).	2 signs	1st	2 Signs posted	None	Yes
6L Implement **street sweeping** program.	Cubic yards collected & curb miles swept	All year	Estimated 274 cu yd 160 lane miles	None	The street sweeping program collects trash and sediment on streets
6M Implement storm drain **inlet cleanout** program.	10 inlets cleaned	All year	25 Inlets cleaned after rain events	None	Removes any trash/debris found in inlets
6N Provide monthly **recycling program** for collecting local steel cans, aluminum, plastics and cardboard.	Pounds collected of each	Monthly	10,000 pounds collected	None	Yes

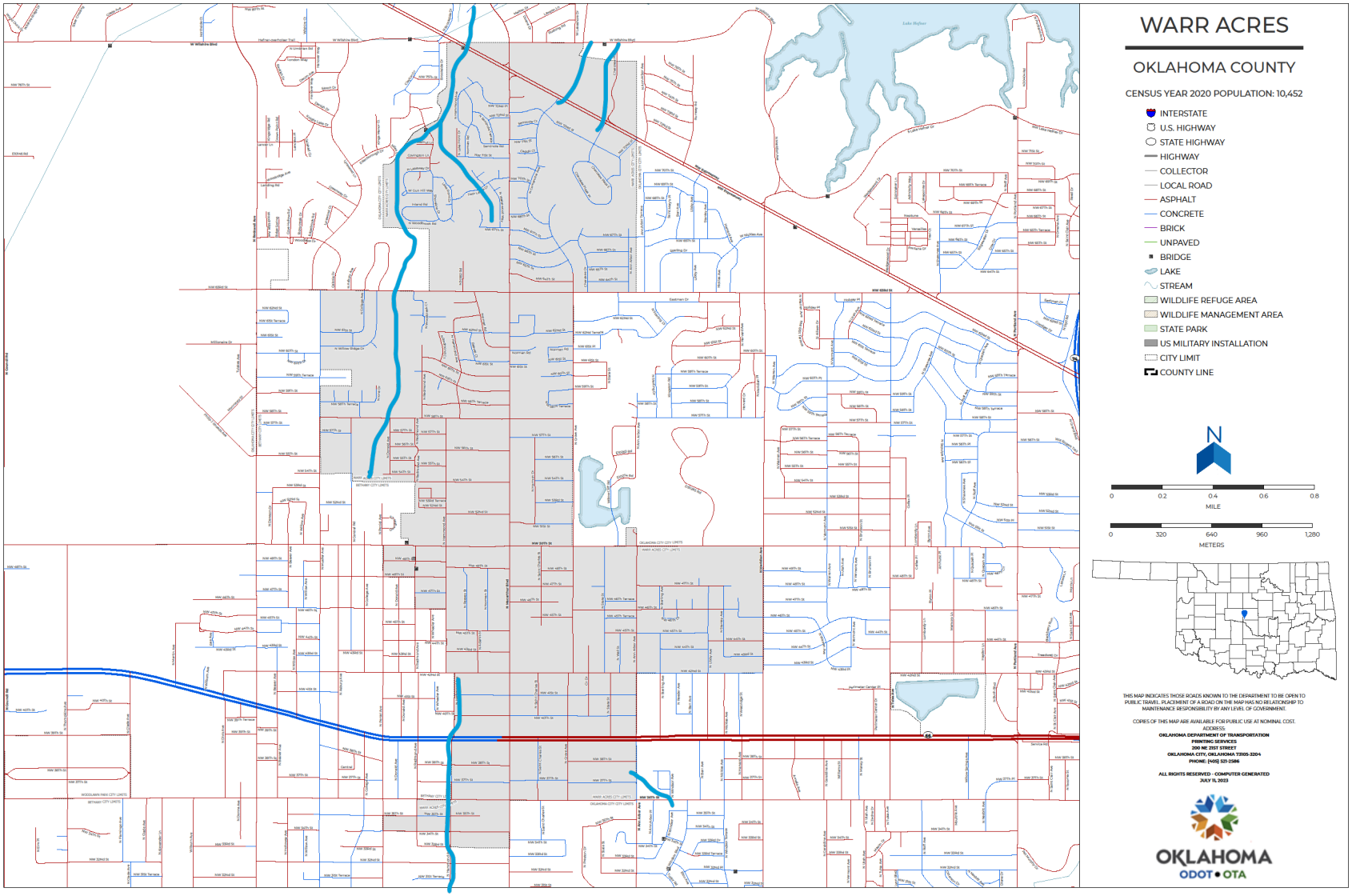
Numbers for each year represent quarters in which BMP will be deployed: 1st = Jan-Mar; 2nd = Apr-Jun; 3rd = Jul-Sep; 4th = Oct-Dec.

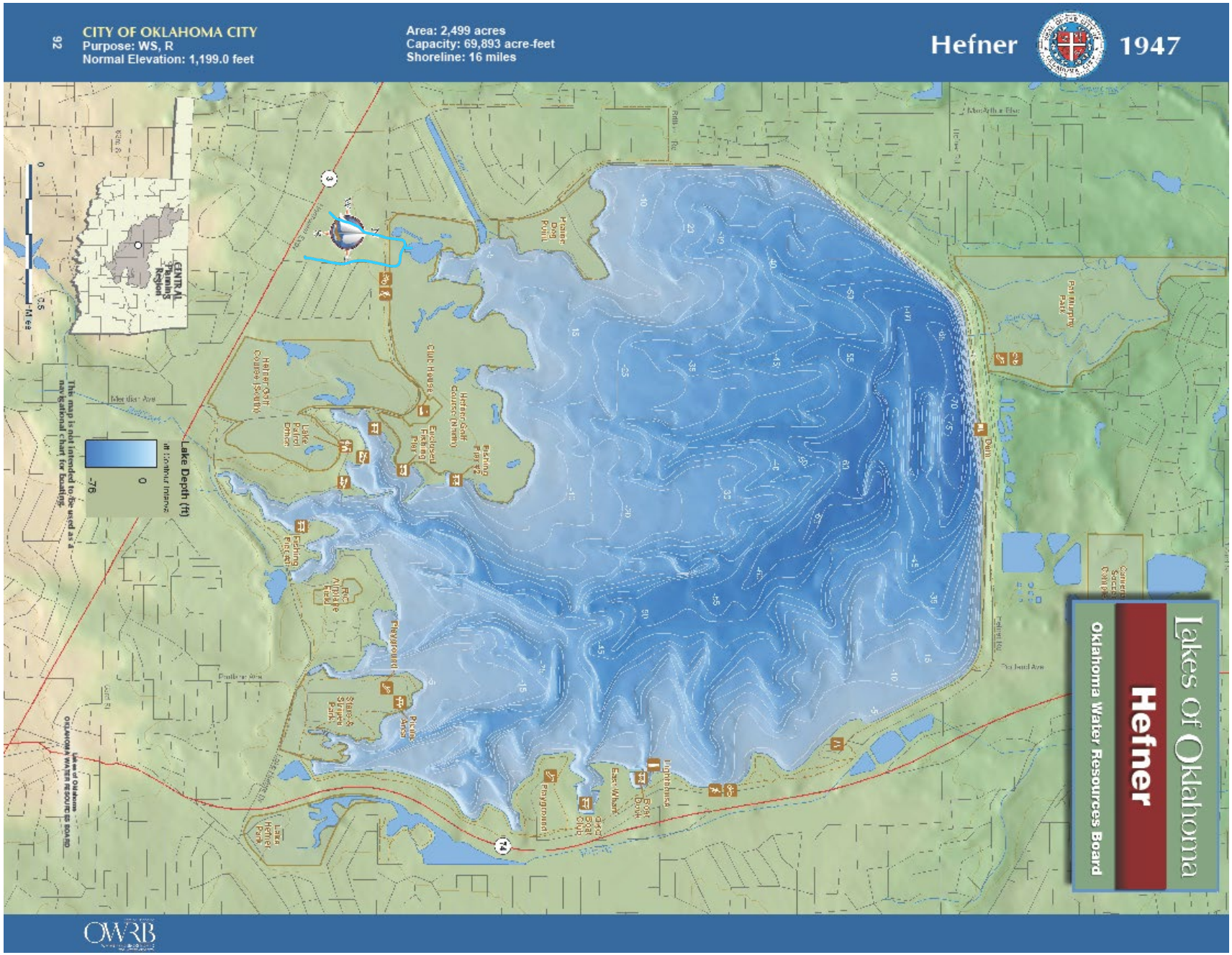
APPENDIX B: Documentation of Selection Criteria for Protected Species

Procedures for and Documentation of the Selection of Criteria to Meet Eligibility for Protection of Endangered Species per OKR04

After comparing ARC (Aquatic Resources of Concern) delineations in Exhibit 1 of the OPDES Permit OKR04 for Small MS4s, June 1, 2021, with our City boundaries, we determined that no part of the City lies within any portion of an ARC. Therefore we have no stormwater discharges that will likely affect endangered species or critical habitat.

APPENDIX C: Map of MS4 and Water Features




92
CITY OF OKLAHOMA CITY
Purpose: WS, R
Normal Elevation: 1,199.0 feet
Area: 2,499 acres
Capacity: 69,893 acre-feet
Shoreline: 16 miles
Hefner
1947
Lakes of Oklahoma
Hefner
Oklahoma Water Resources Board
Lake Depth (ft)
OWRB

APPENDIX D: Written Agreement(s) By Another Governmental Entity

Currently no written agreement(s) by another governmental entity.

APPENDIX E: ACRONYMS

Refer to OKR04 Part VII for a list of definitions of terms used in the OKR04 stormwater permit program. The following list of acronyms was compiled by INCOG. These pertain to contents of this SWMP and include terms involved with specific activities, such as assessing laboratory data and technical reports from other agencies.

%Sat	Percent saturation of dissolved oxygen in a water sample.
303(d)	Section 303(d) of the Clean Water Act requiring biannual assessment of beneficial uses.
BMP	Best Management Practice, particularly regarding pollution controls.
BOD	Biochemical oxygen demand; a test of potential for a water sample to use up oxygen.
BUMP	Beneficial Use Monitoring Program; OWRB's sampling program to support USAP.
ºC	Degrees centigrade or Celsius; the most common unit of measure for temperature.
CBOD5	Carbonaceous BOD, incubated 5 days; common NPDES permit requirement for WWTPs.
CBOD20	CBOD incubated 20 days; equivalent to "ultimate" (maximum) CBOD in a water sample.
COE	US Army Corps of Engineers.
col/100mL	Colonies per 100 milliliters of water sample; a unit of quantification for bacteria samples.
COSWA	Central Oklahoma Storm Water Alliance.
CPP	Continuing Planning Process; a standards and procedures summary document.
CWA	Clean Water Act; more formally the Federal Water Pollution Control Act.
Diurnal	24 hour cycle, particularly related to how DO changes over a 24 hour period.
DMR	Discharge Monitoring Report; ODEQ's form for filing sampling results.
DO	Dissolved oxygen.
EA / EIS	Environmental Assessment / Environmental Impact Statement.
EPA	US Environmental Protection Agency.
FWS	US Fish and Wildlife Service.
GCSA	Green Country Stormwater Alliance; INCOG's coalition of stormwater permittees.
GIS	Geographic Information System; computer system that relates map features to data.
GPS	Global Positioning System; measuring x and y coordinates (location) from satellites.
HUC	Hydrologic Unit Code, used to classify watershed sizes.
INCOG	Indian Nations Council of Governments; 5-county Tulsa area sub-state planning agency.
LA	Load Allocation; nonpoint source numerical discharge quantity in a TMDL.
MCM	Minimum Control Measure; six categories of permit actions under EPA/ODEQ rules.
mg/L	Milligrams per liter; approximately equivalent to parts per million.
MS4	Municipal Separate Storm Sewer System; also used to designate a stormwater permittee.
NH3-N	Ammonia nitrogen; amount of nitrogen as ammonia.

NO2-N	Nitrite nitrogen; amount of nitrogen as nitrite.
NO3-N	Nitrate nitrogen; amount of nitrogen as nitrate.
NOI	Notice of Intent; application form and process to apply for stormwater permit coverage.
NPDES	National Pollutant Discharge Elimination System; federal discharge permit program.
NWI	National Wetlands Inventory by the US Fish and Wildlife Service
OAC	Oklahoma Administrative Code
OCC	Oklahoma Conservation Commission.
ODEQ	Oklahoma Department of Environmental Quality.
OKR04	ODEQ's stormwater general permit for small MS4s.
OKR05	ODEQ's stormwater general permit for industrial activities.
OKR10	ODEQ's stormwater general permit for construction activities.
OPDES	Oklahoma Pollutant Discharge Elimination System; the state discharge permit program.
OWRB	Oklahoma Water Resources Board.
QAPP	Quality Assurance Project Plan; formal documentation about ensuring data integrity.
RCRA	Resource Conservation and Recovery Act; for control of hazardous substances.
SOP	Standard Operating Procedure; description of repetitive tasks such as inspections.
s.u.	Standard Unit for pH measurements.
SWMP	Stormwater Management Program document required by stormwater permits.
SWP3	Stormwater Pollution Prevention Plan; required by construction stormwater permit.
TDS	Total dissolved solids; reflects on presence of salts and conductivity in a water sample.
TKN	Total Kjeldahl Nitrogen; amount of organic nitrogen plus ammonia in a water sample.
TMDL	Total Maximum Daily Load; study accounting for all point and nonpoint sources.
TP	Total phosphorus.
TRI	Toxics Release Inventory; national database of releases of over 650 chemical types.
ug/L	Micrograms per liter; approximately equivalent to parts per billion.
USAP	Use Support Assessment Protocol; methods used in 303(d) assessments.
USGS	United States Geological Survey.
WBID	Waterbody Identification; Oklahoma's system of classifying streams.
WLA	Wasteload allocation; point source numerical quantity in a TMDL and discharge permits.
WQS	Water quality standards.
WWTP	Wastewater treatment plant; also referred to as POTW (publicly owned treatment works).

Section 7 Break is here.

APPENDIX F: EXISTING ILLICIT DISCHARGE ORDINANCE

CHAPTER 13.02
STORMWATER DRAINAGE PROGRAM
SECTION:

Article A. Overview
13.02.010: Purpose of Chapter
13.02.020: Scope of Overview
13.02.030: Definitions Of Chapter
13.02.040: Duties of The Director
13.02.050: Stormwater Drainage Fund
13.02.060: Charges And Exemptions
13.02.070: Director Inspection
13.02.080: Collection Of Stormwater Charge
13.02.090: Appeal Or Adjustments of Charge
13.02.100: City Council Discretion

Article B. General Provisions
13.02.110: Purpose Of Stormwater Management
13.02.120: Scope Of General Provisions
13.02.130: Definitions Of General Provisions

Article C. Application and Permits for Industrial, Commercial, Institutional and Certain Residential Facilities
13.02.140: Existing Facilities Required to Obtain Permit
13.02.150: Construction Stormwater Discharge Permit
13.02.160: Permit Application Fees
13.02.170: Maintenance And Submittal of Records
13.02.180: Transfer Of Permit
13.02.190: Signatory Requirements

Article D. Land Disturbing Activity and Erosion and Sedimentation Control
13.02.200: General Land Disturbing Activity
13.02.210: Land Disturbing Activity Regulated
13.02.220: Permit Application
13.02.230: Sediment And Erosion Control

Article E. Stormwater Quality Management
13.02.240: Stormwater Quality Management Division Established
13.02.250: Authority Of Stormwater Quality Manager

ARTICLE A. OVERVIEW

13.02.010: PURPOSE OF CHAPTER:
It is the purpose of this chapter to address the mandates of the federal government and establish a stormwater utility to promote public health, safety and welfare by providing for studying, designing, operating, construction, equipping, maintaining, acquiring and owning within the city a stormwater drainage system. The establishment of a stormwater drainage system would:
A. Reduce flood and storm losses and inconveniences from uncontrolled stormwater runoff in the city;
B. Improve the movement of emergency vehicles so that such movement is not prohibited nor inhibited during storm or flood periods; and
C. Preserve the city's watercourses, improve and preserve water quality, minimize water quality degradation, and otherwise facilitate urban water resource management techniques, including both the reduction of pollution and the enhancement of the urban environment, including, but not limited to, the NPDES permit requirements and such other requirements of the city, state and federal governments. (Ord. 1076 §1, 2009)

13.02.020: SCOPE OF OVERVIEW:
This article establishes methods to regulate the introduction of pollutants into the municipal storm sewer system and enables the city to comply with all applicable state and federal laws including, but not limited to, the clean water act, the Oklahoma environmental quality act Note 1 and the stormwater regulations (40 CFR part 122). The objectives of this article are to allow the city:
A. To regulate the introduction of pollutants to the municipal storm sewer system by stormwater discharges by any user;
B. To control spills, dumping or disposal of materials other than stormwater into the municipal storm sewer system;
C. To prohibit illicit discharges into the municipal storm sewer system;
D. To carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with this code; and
E. To comply with NPDES permit conditions and any other federal or state law pertaining to stormwater quality to which the city is subject. (Ord. 1076 §1, 2009)

Notes 1. 27A OS 1-1-101 et seq.

13.02.030: DEFINITIONS OF CHAPTER:
The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:
COMMERCIAL PROPERTY: All property other than residential property and undeveloped real estate.
DEPARTMENT: The street and parks department of the city of Warr Acres.
DETENTION FACILITIES: Facilities designed to hold stormwater for a short period and then to release it to the natural watercourse.
DEVELOPED REAL ESTATE: Real property altered from its natural state by the addition to or construction of any impervious surface such that the hydrology of the property is affected.
DIRECTOR: The supervisor of the department and/or the designated representative.
DRAINAGE BASIN PLAN: A plan adopted by the city for managing surface and storm water facilities and features within an individual drainage basin.
IMPERVIOUS SURFACE: Any hard surfaced area which prevents or retards the entry of water into the soil in the manner and to the extent that such water entered the soil under natural conditions, causing water to run off the surface in greater quantities or at an increased rate of flow than was present under natural conditions, such as, but not limited to, rooftops, asphalt or concrete sidewalks, paving, driveways and parking lots, walkways, patio areas, storage areas, and gravel, bituminous substances or other surfaces which similarly affect the natural infiltration or runoff patterns of real property in its natural state.
NPDES PERMIT: The national pollutant discharge elimination system permit issued to the city by the United States environmental protection agency and any addition or amendment thereto.
RESIDENTIAL PROPERTY: Any tract, lot or parcel designed and used principally for the purpose of one residential single-family house or one duplex, developed according to and meeting the bulk and area requirements for residential single-family or duplex zoned property as set forth in this code at the time of the development of such property. However, multiple residential single-family housing or multiple duplexes or any combination thereof on one tract, lot or parcel shall not be deemed residential property.
RETENTION FACILITIES: Facilities designed to hold stormwater for a sufficient length of time to provide for it to be consumed by evaporation, infiltration into the immediate soil or other natural means.
STORMWATER CHARGE: The fees levied within the boundaries of the city for the use of the city's stormwater drainage system and facilities, and shall include a stormwater base fee and stormwater utility discharge fee. The stormwater base fee is hereby established to meet the requirements and regulations of local, state and federal governments, including, but not limited to, the NPDES permit. The stormwater discharge fee is hereby established to develop a stormwater utility to develop and maintain a stormwater drainage system.
STORMWATER DRAINAGE SYSTEM: Any facility, structure, improvement, development, equipment, property or interest therein, or other structural or nonstructural element made, constructed, used or acquired for the purpose of collecting, containing, storing, conveying and controlling stormwater wherever located, including, but not limited to, storm sewers, curbs, street drains, conduits, natural and manmade channels, pipes, culverts and detention ponds

whether public or private.
STORMWATER MANAGEMENT PROGRAM OR PROGRAM: An overall strategy and framework for the stormwater management activities of the city.
STORMWATER RUNOFF: That portion of the rainfall that is drained into the stormwater drainage system.
UNDEVELOPED REAL ESTATE: Real estate unaltered by the construction or addition of any impervious surface which would change or affect the hydrology of the property from its natural state.
USER: The occupant, the owner of the real estate, the owner of any impervious surface or improvement and/or other person or entity benefiting from the stormwater drainage system and facilities. (Ord. 1076 §1, 2009)

13.02.040: DUTIES OF THE DIRECTOR:
The director shall exercise all lawful powers necessary and appropriate to administer the city's stormwater management program. The director shall have the authority to:
A. Develop and administer all phases of a comprehensive program of stormwater management, including studying, planning, designing, establishing, acquiring, constructing, developing, installing, administering, maintaining, operating, improving, repairing, replacing and reconstructing the city's stormwater drainage system;
B. Administer the accounting, budgeting, recordkeeping and support personnel necessary for the efficient operation of the stormwater management program;
C. Administer the regulations contained in the NPDES permit and in this chapter;
D. Perform studies, tests and analyses required to establish or modify the stormwater management program;
E. Provide for public information and awareness that would improve management and reduce pollution and hazards to life and property;
F. Establish a flood alert and early warning system as a joint effort with emergency response agencies;
G. Coordinate enforcement of the regulations contained in this title with other city departments;
H. Seek the cooperation of counties and municipalities within the metropolitan area in reducing the contribution of all storm drainage systems to flooding and, in particular, cooperate with other affected political jurisdictions in preparing and implementing master drainage plans;
I. Hear and consider challenges to the application of this chapter, the calculation of fees, the determination of the impervious surface area and the classification of users;
J. Collect the stormwater charges;
K. Provide an exchange of information between the public and city employees and officers on flooding and stormwater drainage problems in the city;
L. Recommend to the mayor and the city council a comprehensive stormwater management program;
M. Propose cooperation studies and plans for coordinated stormwater drainage services in the city and surrounding areas; and
N. Recommend from time to time to the mayor and the city council policies for establishing new kinds of stormwater drainage services, preserving and expanding existing service and making changes in service for the benefit of the public. (Ord. 1076 §1, 2009)

13.02.050: STORMWATER DRAINAGE FUND:

A. A special fund or funds shall be maintained for the purpose of identifying and controlling all revenues and expenses attributable to stormwater charges. All stormwater charges and all loans, grants or funds received for the administration, operation, construction and improvement of the stormwater drainage system and facilities shall be deposited in such fund or funds. Disbursements for costs of data collection, planning, designing, engineering, policing, constructing, maintaining, operating, and improving drainage services and facilities and any other activity provided for by this chapter shall be made from the appropriate fund or funds.

B. A special stormwater management enterprise fund shall be established to receive all stormwater charges for the use of the city's stormwater drainage system and facilities and to meet applicable local, state and federal regulations, including, but not limited to, the NPDES permit.

C. Expenditures and disbursements from the stormwater management enterprise fund shall be at the direction and discretion of the city council. (Ord. 1076 §1, 2009)

13.02.060: CHARGES AND EXEMPTIONS:

A. There is hereby established a stormwater charge in the amount of one dollar fifty cents ($1.50) per month assessed and collected as herein set forth for the use of the city's stormwater drainage system and facilities and to meet applicable local, state and federal regulations, including, but not limited to, the NPDES permit; provided, however, the stormwater charges shall not be imposed on the following types of property:

1. City, state and federal roads, bridges, highways, streets, rights of way;
2. City parks, city buildings, city facilities and open spaces owned or operated by the city; or
3. Undeveloped parcels of land.

B. The monthly stormwater charge established above shall be charged against every residential and commercial property. In the case of duplexes and multi-family dwelling unit complexes the service charge shall be made for each dwelling unit. The stormwater charge for commercial property shall be based on the size of the water meter serving the facility and shall be as follows:

Meter Size (Inches)	Fee
5/8	$ 1.50
1	2.95
11/2	4.35
2	6.00
3	8.45
4	11.25
6	16.75

C. All proceeds from the stormwater charges established herein shall be deposited to the stormwater management enterprise fund established in section 13.02.050 of this chapter. Expenditures from said fund shall be restricted to purposes set out in this section or other purposes deemed by the city council as directly benefiting the stormwater drainage system of the city. (Ord. 1076 §1, 2009)

13.02.070: DIRECTOR INSPECTION:
The director shall have the right to inspect any on site detention or retention facility at any reasonable time to determine if it is in compliance with the approved design and is capable of functioning properly. The director shall have the right to inspect any property within the city to determine the source, quantity, quality or flow rate of stormwater and to determine the source and nature of pollutants, hazards and/or activities creating or promoting same. (Ord. 1076 §1, 2009)

13.02.080: COLLECTION OF STORMWATER CHARGE:
A. The stormwater charges herein established for the use of the city's stormwater drainage system and facilities shall be billed monthly to each utility user. The stormwater charges may be billed along with a bill for water or other utility services. The deposit requirement, late charges and penalties as are now or may hereinafter be established for water service bills shall also apply to stormwater charges. In the event that any person, firm or corporation shall tender as payment of water service, sewer service, collection of solid waste service and/or service charge for the use of the city's stormwater drainage system an amount insufficient to pay in full all of the charges so billed, payment shall be credited proportionately among all charges.
B. The provision for collection provided herein shall be in addition to any rights or remedies which the city may have under the laws of the state of Oklahoma. (Ord. 1076 §1, 2009)

13.02.090: APPEAL OR ADJUSTMENTS OF CHARGE:
Any user who considers the stormwater charges, applicability of stormwater charges or calculation of stormwater charges, to be inaccurate or erroneous may request review thereof by the director. The determination by the director may be appealed to the mayor by written notice of appeal stating the reasons or basis for the appeal filed with the director and mayor within ten (10) days of the director's written determination. (Ord. 1076 §1, 2009)

13.02.100: CITY COUNCIL DISCRETION:
The determination of stormwater services to be provided and stormwater facilities and improvements to be constructed will be made at the sole discretion of the city council. The director shall recommend the provision of stormwater services and construction of the stormwater facilities and improvements to the city council based upon his engineering analysis, taking into consideration frequency of flooding events, potential loss of life, potential property damage, potential effect upon the general public and any other factor affecting the purpose of this chapter. (Ord. 1076 §1, 2009)

ARTICLE B. GENERAL PROVISIONS

13.02.110: PURPOSE OF STORMWATER MANAGEMENT:
It is the purpose of this article to protect, maintain, and enhance the environment of the city of Warr Acres and the short term and long term public health, safety, and general welfare of the citizens of Warr Acres by controlling discharges of pollutants to the city's stormwater system and to maintain and improve the quality of the community water into which the stormwater outfalls flow, including, without limitation, the lakes, rivers, streams, ponds, wetlands, sinkholes, and groundwater of Warr Acres. (Ord. 1076 §1, 2009)

13.02.120: SCOPE OF GENERAL PROVISIONS:
This article establishes methods to regulate the introduction of pollutants to the municipal separate storm sewer system and enables the city of Warr Acres to comply with all applicable state and federal laws including, but not limited to, the clean water act (33 USC 1251 et seq.), the Oklahoma environmental quality act 1 and the stormwater regulations (40 CFR part 122). The objectives of this article are to allow the city of Warr Acres:
A. To regulate the contribution of pollutants to the municipal separate storm sewer system by stormwater discharges by any user;
B. To control the introduction to the municipal separate storm sewer system of spills, dumping, or the disposal of materials other than stormwater;
C. To prohibit illicit discharges to the municipal separate storm sewer system;
D. To carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with this chapter;
E. To comply with "NPDES municipal stormwater discharge permit" conditions and any other federal or state law pertaining to stormwater quality which the city of Warr Acres is subject. (Ord. 1076 §1, 2009)

Notes 1. 27A OS 1-1-101 et seq.

13.02.130: DEFINITIONS OF GENERAL PROVISIONS:
ACCIDENTAL DISCHARGE: A discharge prohibited by this article into the "community waters" or to the "waters of the state" which occurs by chance and without planning or consideration prior to occurrence.
ACT OR THE ACT: The federal water pollution control act, also known as the clean water act, as amended, 33 USC 1251 et seq., and any addition or amendment thereto.
AGRICULTURAL STORMWATER RUNOFF: Any stormwater runoff from orchards, cultivated crops, pastures, rangelands, and other nonpoint source agricultural activities, but not discharges from concentrated animal feeding operations as defined in 40 CFR section 122.23 or discharges from concentrated aquatic animal production facilities as defined in 40 CFR section 122.24 and any addition or amendment thereto.
AQUATIC MONITORING ORGANISM: The fathead minnow Pimephales promelas, the bacterium Photobacterium phosphoreum, or the daphnid Ceriodaphnia dubia.
BEST MANAGEMENT PRACTICE (BMP): The best available practices or devices that, when used singly or in combination, eliminate or reduce the contamination of surface and/or ground waters. BMPs are divided into two (2) categories:
A. Nonstructural best management practices are those which require modified or additional

operational or behavior practices, such as sweeping a parking lot or having spill response equipment on site; and

B. Structural best management practices are those which require the construction of a structure or other physical modification on the site.

CITY: The city of Warr Acres, Oklahoma, a municipal corporation, and the duly authorized offices or agents of the city of Warr Acres.

CLEAN WATER ACT: The federal water pollution control act, as amended, codified at 33 USC 1251 et seq., and any amendment or addition thereto.

COMMERCIAL: Property devoted in whole or in part to the commerce, that is, the exchange and buying and selling of commodities or services. The term shall include, by way of example but not of limitation, the following businesses: amusement establishments, animal clinics or hospitals, automobile service stations, new or used automobile dealerships, automobile car washes, automobile and vehicular repair shops, banking establishments, beauty and barber shops, bowling alleys, bus terminals and repair shops, camera shops, dental offices or clinics, daycare centers, department stores, drugstores, funeral homes, furniture stores, gift shops, grocery stores, hardware stores, hotels, jewelry stores, laboratories, laundries and dry cleaning establishments, liquor stores, medical offices and clinics, motels, movie theaters, office buildings, paint stores or shops, parking lots, produce markets, or professional offices, radio stations, repair establishments, retail stores, restaurants and similar establishments serving prepared food and beverages, rooming houses, shopping centers, stationery stores, television stations and production facilities, and theaters.

COMMUNITY WATERS: Any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells, and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the city of Warr Acres or the waters into which the composite sample stormwater system outfalls flow.

COMPOSITE SAMPLE: The sample of stormwater runoff resulting from the combination of individual samples taken at selected intervals based on an increment of either flow or time.

CONFIDENTIAL INFORMATION: A document or information regarding or describing a process, product or information which has been determined by the manager to be confidential or has been declared by a court of competent jurisdiction to be exempt from disclosure to third parties under the Oklahoma open records act and any amendment or supplement thereto.

CONSTRUCTION ACTIVITY: Clearing, grading, mining, and excavation activities except: operations which are not part of a larger common plan of development or sale.

CONSTRUCTION STORMWATER DISCHARGE PERMIT: These permits are to establish controls to the maximum extent practicable effectively prohibiting non-stormwater discharged from construction sites to the municipal separate storm sewer system (MS4) and where necessary, contain applicable water quality based controls.

CONTAMINATED: Containing a harmful quantity of any substance.

DEQ: The Oklahoma department of environmental quality.

DAYS: Calendar days.

DIRECTOR: The director of public works, or the person succeeding to his duties and functions by whatever name known, or his duly authorized deputy, agent, or representative.

DISCHARGE: To cause or allow to throw, drain, release, dump, spill, empty, emit, blow or pour any pollutants or harmful quantity of any substance into the municipal separate storm sewer system (MS4) or into community waters, waters of the state or waters of the United States.

DISCHARGER: Any person who causes, allows, permits, or is otherwise responsible for, a discharge, including, without limitation, any operator of a construction site or industrial facility. Owner of commercial, residential or agricultural property; owner or transporter of source of discharge.
DOMESTIC SEWAGE: Human excrement, gray water (from home clothes washing, bathing, showers, dishwashing, and food preparation), other wastewater from household drains, and waterborne waste normally discharged from the sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories, or commercial properties and institutions, that is free from industrial waste.
ENVIRONMENTAL PROTECTION AGENCY (EPA): The U.S. environmental protection agency or, where appropriate, the term may also be used as designated for the regional water management division director or other duly authorized official of said agency.
EROSION AND SEDIMENT CONTROL PLAN: A written plan, including drawings or other graphic representations, for the control of soil erosion and sedimentation resulting from a land disturbing activity.
FIRE CODE: The fire prevention and protection chapter of this code and any amendment or supplement thereto.
FIRE DEPARTMENT: The fire department of the city of Warr Acres, or any duly authorized representative thereof.
FIRE PROTECTION WATER: Any water, and any substances or materials contained therein, used by any person other than the fire department to control or extinguish a fire.
GARBAGE: Putrescible animal and vegetable waste materials from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.
GRAB SAMPLE: A sample of stormwater runoff which is taken on a onetime basis without regard to the flow and consideration of time.
HARMFUL QUANTITY: The amount of any substance that will cause pollution of water in the state, or that will cause lethal or sublethal adverse effects on representative, sensitive aquatic monitoring organisms belonging to the city, upon their exposure to samples of any discharge into the MS4, community waters, or waters of the state.
HAZARDOUS SUBSTANCE: Any substance listed in table 302.4 of 40 CFR part 302 and any amendment or addition thereto.
HAZARDOUS WASTE: Any substance identified or listed as a hazardous waste by the EPA pursuant to 40 CFR part 261.
ILLICIT DISCHARGE: Any intentional discharge to the municipal separate storm sewer system that is not composed entirely of stormwater, except discharges pursuant to any NPDES permit, or discharges resulting from firefighting activities.
INDUSTRIAL: A business engaged in industrial production or service, that is a business characterized by manufacturing or productive enterprise or a related service business. This term shall include, by way of example but not of limitation, the following: salvage yards, wrecker services, apparel and fabric finishers, blast furnaces, blueprint and related shops, boiler works, cold storage plants, contractors' plants and storage facilities, foundries, furniture and household good manufacturing, forge plants, greenhouses, junkyards, manufacturing plants, metal fabricating shops, ore reduction facilities, planing mills, rock crushers, rolling mills, sawmills, smelting operations, stockyards, stone mills or quarries, textile production, utility

transmission or storage facilities, warehousing, and wholesaling facilities.
INDUSTRIAL ACTIVITY: Any activity which is directly related to manufacturing, processing or raw materials storage areas at an industrial facility. The term includes, but is not limited to, industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or byproducts used or created by the industrial facility; sites where material handling activities are performed; refuse sites; sites used for the applications or disposal of process wastewaters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and immediate and finished products.
INDUSTRIAL FACILITY OR INDUSTRY: A premises whose function is classified in the latest edition of "Standard Industrial Classification Manual" (United States office of management and budget).
INDUSTRIAL STORMWATER DISCHARGE PERMIT: Regular discharges from facilities which may control any conveyance which is used for collecting and conveying stormwater and which is directly related to material storage areas at an industrial plant.
INDUSTRIAL WASTE: Any airborne particulates, waterborne liquid or solid substance that results from any process of industrial, manufacturing, mining, production, trade, or business activities, including concrete washout.
INSTITUTIONAL: An established organization, especially of a charitable or public character. This term shall include, by way of example but not of limitation, the following: churches, community buildings, colleges, daycare facilities, dormitories, drug or alcohol rehabilitation facilities, fire halls, fraternal organizations, golf courses and driving ranges, government buildings, hospitals, libraries, kindergartens or preschools, nursing homes, mortuaries, schools, social agencies, synagogues, parks, and playgrounds.
MANAGER: The person designated by the city to supervise the operation of stormwater quality management and the stormwater management system and who is charged with certain duties and responsibilities by this article, or his duly authorized representative.
MATERIAL HANDLING ACTIVITIES: The storage, loading and unloading, transportation or conveyance of any raw material, immediate product, finished product, byproduct or waste product.
MONITORING: The performance of stormwater flow measurements, stormwater sampling, sample analysis, and like procedures necessary to determine compliance with stormwater discharge activity.
MOTOR VEHICLE FLUID: Any vehicle crankcase oil, antifreeze, transmission fluid, brake fluid, differential lubricant, gasoline, diesel fuel, gasoline/alcohol blend, and any other fluid used in, or from within, a motor vehicle.
MULTI-FAMILY RESIDENTIAL: An apartment building or other residential structure built for three (3) or more family units, mobile home parks with three (3) or more units or lots under common ownership, and condominiums of three (3) or more units.
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): The system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned or regulated by the city and designed or used for collecting or conveying stormwater, and which is not used for collecting or conveying sewage.
MUNICIPAL SOLID WASTE: Solid waste resulting from or incidental to municipal, community,

commercial, institutional, or recreational activities, and includes garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and other solid waste other than industrial waste.
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT: A permit issued by EPA (or by the state under authority delegated pursuant to 33 USC 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general areawide basis.
NONPOINT SOURCE: Any source of any discharge of a pollutant that is not a "point source".
NOTICE OF INTENT (NOI): A written notice by a discharger or potential discharger to the director, or his designee, that the person wishes his discharge to be authorized under a general permit authorized by state law or regulation.
NOTICE OF TERMINATION (NOT): A written notice by a discharger to the director of the department of public works, or his designee, that the project permitted has seventy percent (70%) revegetation of all bare areas and all soil disturbing activities are concluded, allowing the termination of the permit issued under this chapter, or the discharger is no longer the operator of the facility and another has assumed the responsibility and obtained an NOI.
ODEQ: The Oklahoma department of environmental quality.
OPDES: Oklahoma pollution discharge elimination system act, 27 Oklahoma Statutes 2-201 et seq., and any amendment or addition thereto.
OIL: Any kind of oil in any form, including, but not limited to, petroleum, fuel oil, crude oil or any fraction thereof, which is liquid at standard conditions of temperature and pressure, sludge, oil refuse, and oil mixed with waste.
OPERATOR: A person that: a) has operational or supervisory control over the premises or equipment; or b) has the day to day operational or supervisory control of activities at a work site or construction location sufficient to comply with or to ensure compliance with plan requirements and permit conditions (e.g., is authorized to direct workers at a work site to carry out activities identified in an ordinance, permit or work plan).
OVERBURDEN: Any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally occurring surface material that is not disturbed by mining operation.
POTW: Publicly owned treatment works.
PERSON: Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context. This definition includes all federal, state, or local governments.
POINT SOURCE: 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.
POLLUTANT: Any dredge spoil, solid waste, incinerator residue, oil, grease, sewage, garbage, sewage sludge, munitions, medical waste, chemical waste, industrial waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, agricultural and industrial waste, and characteristics of the wastewater (i.e., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, odor).

POLLUTION PREVENTION PLAN: A written site specific plan to eliminate or reduce and control the pollution of stormwater through designed facilities, sedimentation ponds, natural or constructed wetlands, and best management practices.
PREMISES: Any plot or tract of ground, regardless of size or plat, owned by a person or used by a person and any contiguous plots.
RELEASE: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the municipal separate storm sewer system (MS4), community waters, waters of the state, or the waters of the United States.
RUBBISH: Non-putrescible solid waste, excluding ashes, that consists of:
A. Combustible waste materials, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; and
B. Noncombustible waste materials, including glass, crockery, tin cans, aluminum cans, metal furniture, and similar materials that do not burn at ordinary incinerator temperatures (1,600°F to 1,800°F).
SANITARY SEWER (OR SEWER): The system of pipes, conduits, and other conveyances which carry industrial waste and domestic sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to a sewage treatment plant, POTW (and to which stormwater, surface water, and groundwater are not intentionally admitted).
SERVICE STATION: Any retail establishment engaged in the business of selling fuel for motor vehicles that is dispensed from stationary storage tanks.
SEWAGE: Industrial waste and/or domestic sewage.
SIC CODE: Standard industrial classification code of executive office of the president of the United States, office of management and budget.
SIGNIFICANT SPILLS: Includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under section 311 of the clean water act (see 40 CFR 110.10 and CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4) and any amendment or addition thereto.
SOLID WASTE: Any garbage, rubbish, refuse, municipal solid waste, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, agricultural operations, community and institutional activities, including metal shavings, plastic pellets, paint chips, carpet fibers, wood chips, sawdust, grass clippings and leaves.
SPILLS: Any release that, in the opinion of the director, negatively impacts the quality of water within or discharges from the city's municipal separate storm sewer system, or causes damaging or deleterious effects to the city's municipal separate storm sewer system including all structures or appurtenances, and/or the waters to the storm sewers.
STATE: The state of Oklahoma.
STORMWATER: Any rainwater runoff, surface runoff, and drainage related to rain or storm events or snowmelt.
STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY: Stormwater from areas of industrial activity or areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater.
STORMWATER MANAGEMENT: The collection, conveyance, storage, treatment and disposal of

stormwater runoff in a manner to meet the objectives of this article and its terms, including, but not limited to, measures that control the increased volume and rate of stormwater runoff and water quality impacts caused by manmade changes to the land.
STORMWATER MANAGEMENT PLAN OR SWMP: The set of drawings and other documents that comprise all of the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques for the control of stormwater and which is incorporated as part of the NPDES permit for the city, and as part of this article.
TOXIC POLLUTANT: Any pollutant or combination of pollutants listed as toxic in 40 CFR part 401 promulgated by the administrator of the environmental protection agency under the provisions of 33 USC 1317 and any amendment or addition thereto.
UNCONTAMINATED: Not containing a harmful quantity of any substance.
USED OIL (OR USED MOTOR OIL): Any oil that has been refined from crude oil or a synthetic oil that, as a result of use, storage, or handling, has become unsuitable for its original purpose because of impurities or the loss of original properties, but may be suitable for further use and is recyclable in compliance with state and federal law.
USER: Any source of direct or indirect discharge to Warr Acres's municipal separate storm sewer system.
UTILITIES: A television, electric, gas, water, sewer, cable TV, or other company or legal or government entity that provides service to the public.
VARIANCE: The modification of the minimum stormwater management requirements contained in this chapter and the stormwater management plan for specific circumstances where strict adherence of the requirements would result in unnecessary hardship and not fulfill the intent of this chapter.
WASTEWATER: Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.
WATER QUALITY: Those characteristics of stormwater runoff that relate to the physical, chemical, biological, or radiological integrity of water.
WATER QUANTITY: Those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff.
WATERS OF THE STATE (OR WATER): Any groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.
WATERS OF THE UNITED STATES: All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce including all waters which are subject to the ebb and flow of the tide; all interstate waters, including interstate wetlands; all other waters the use, degradation, or destruction of which would affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the United States under this definition; all tributaries of waters identified in this definition; all wetlands adjacent to waters identified in this definition; and any waters within the federal definition of "waters of the United States" at 40 CFR 122.2; but not including any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the federal clean water act.
WETLAND: An area that is inundated or saturated by surface or ground water at a frequency

and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

The following abbreviations shall have the designated meanings:

BAT	Best available technology
BCT	Best conventional technology
BMP	Best management practice
BOD	Biochemical oxygen demand
CFR	Code of federal regulations
COD	Chemical oxygen demand
EPA	U.S. environmental protection agency
gpd	Gallons per day
l	Liter
mg	Milligrams
mg/l	Milligrams per liter
NOI	Notice of intent
NOV	Notice of violation
NPDES	National pollutant discharge elimination system
OPDES	Oklahoma pollution discharge elimination system
POTW	Publicly owned treatment works
RCRA	Resource conservation recovery act
RQ	Reportable quantities
SARA	Superfund amendments and reauthorization act of 1986
SCS	Soil conservation service
SWDA	Solid waste disposal act (42 USC 6901 et seq.)
TSD	Treatment, storage and disposal facilities
TSS	Total suspended solids
USC	United States code

(Ord. 1076 §1, 2009)

ARTICLE C. APPLICATION AND PERMITS FOR INDUSTRIAL, COMMERCIAL, INSTITUTIONAL AND CERTAIN RESIDENTIAL FACILITIES

13.02.140: EXISTING FACILITIES REQUIRED TO OBTAIN PERMIT:

A. Any existing industrial, commercial, institutional or multi-family or group residential facilities that discharge stormwater into community waters and that do not have current NPDES permits issued by the DEQ authorizing a discharge of stormwater into the waters of the state

will be required to develop a pollution prevention plan and apply for an industrial stormwater discharge permit. The industrial stormwater discharge permit shall be required in addition to any permits required by EPA or the state. Facilities that have the following standard industrial classification codes must apply and receive an industrial stormwater discharge permit:

SIC Code	Title
SIC Code	Title
10	Metal mining
12	Coal mining
13	Oil and gas extraction
14	Nonmetallic minerals, except fuels
20	Food and kindred products
21	Tobacco products
22	Textile mill products
23	Apparel and other textile products
24	Lumber and wood products
25	Furniture and fixtures
26	Paper and allied products
27	Printing and publishing
28	Chemicals and allied products
29	Petroleum and coal products
30	Rubber and miscellaneous plastic products
31	Leather and leather products (except 311)
32	Stone, clay, and glass products
33	Primary metal industries
34	Fabricated metal products
35	Industrial machinery and equipment
36	Electronic and other electric equipment
37	Transportation equipment
38	Instruments and related products
39	Miscellaneous manufacturing industries
40	Railroad transportation
41	Local and interurban passenger transit
42	Trucking and warehousing
43	United States postal service
44	Water transportation
45	Transportation by air

5015	Motor vehicle parts, used
5093	Scrap and waste materials
5171	Petroleum bulk stations and terminals

B. An application, including a pollution prevention plan, shall be submitted to the manager. Upon approval, an industrial stormwater discharge permit shall be issued within six (6) months of the submittal of the pollution prevention plan. Any approved pollution prevention plan shall be incorporated into the industrial stormwater discharge permit. The industrial stormwater discharge permit may require the facility to implement structural and nonstructural best management practices to reduce pollution discharge. If the application is not approved, the manager shall notify the applicant of the deficiencies. The applicant shall have ninety (90) days to revise and resubmit the application. If the deficiencies noted by the manager are not corrected and the application resubmitted for approval within the ninety (90) days or, if after being resubmitted, is disapproved, any discharge of stormwater after that date into waters of the community shall be unlawful. Once issued, an industrial stormwater discharge permit shall be valid for five (5) years, unless sooner revoked for violations of permit conditions, changes in applicable law, changes in discharge or other good cause.

C. The application for an industrial stormwater discharge permit for an existing facility shall include the following:

1. Site map of facility showing buildings, parking, drives, materials loading and access areas, type of each impervious surface, ditches, pipes, catch basins, drainage basin limits, area of facility, acreage of off-site water draining into facility, discharge points to waters of the state or community waters with name of the water or drainage basin. This map will be a minimum scale of one inch equals one hundred feet (1" = 100');
2. Description of facility including the nature of work performed and type of facility;
3. Narrative description of significant materials (as defined at 40 CFR 122.26) that are currently or in the past have been treated, stored or disposed of at the facility; method of on-site storage or disposal; materials management practices used to minimize contact of these materials with stormwater runoff currently and for the past three (3) years; materials loading and access area; the location and description of existing structural and nonstructural control measures to reduce pollutants in stormwater runoff; and a description of any treatment the stormwater receives;
4. Cleanup schedule for debris, material storage areas, garbage storage or disposal areas, or other areas that have the potential to pollute stormwater;
5. Description of plan of instruction to employees at all levels in ways to prevent pollution and spill response. The plan shall identify periodic dates for such training;
6. Name of contact person for permit compliance, including job title, address and phone number;
7. Maintenance schedule of sweeping or vacuuming of facility to prevent washout of a buildup of emissions laden with hydrocarbons, oxides, salts, metals, worn pavement particulates, hydrocarbons for leaks and spills, trash, debris, garbage, metals, tire particles, brake lining particles and various chemicals from the wear, deterioration and deposition of vehicles;

8. Description of other ways the facility plans to implement programs to reduce the discharge of pollutants through stormwater flow. For each area of the facility that generates stormwater discharges associated with an activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants which are likely to be present in stormwater discharges associated with industrial activity;

9. Plans showing the construction of an appropriately sized grit sediment basin and oil skimmer structure for discharge outfalls into community waters in accordance with detailed drawings of these structures which are shown in the stormwater management section of the "Best Management Practices Manual";

10. A record of available sampling data describing pollutants in stormwater discharges;

11. A preventative maintenance program that includes regular inspection and maintenance of stormwater management devices (e.g., cleaning grit chambers, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters; and

12. Designation of a person to keep a record of incidents such as significant spills or other discharges that materially affect stormwater, along with other information describing the quality and quantity of stormwater discharges. Inspections and maintenance activities shall be documented and recorded. (Ord. 1076 §1, 2009)

13.02.150: CONSTRUCTION STORMWATER DISCHARGE PERMIT:

A. All new utility, industrial, commercial, institutional and multi-family residential facilities, and all residential subdivisions shall obtain a construction stormwater discharge permit prior to construction activity. The construction stormwater discharge permit shall be required in addition to any permits required by the state or elsewhere in this code for stormwater discharges associated with industrial activity or for stormwater discharges associated with construction activity or land disturbing activity.

B. The minimum standards for issuance of a construction stormwater discharge permit shall be a pollution prevention plan, and either an approved general OPDES permit or a land disturbing permit. The application for a construction stormwater discharge permit shall be filed with the manager and shall:

1. Include, if the facility is to be covered under a DEQ OPDES permit for stormwater discharges associated with industrial activity, a general OPDES permit, an industrial OPDES permit or an NOI, copies of such documents;

2. Demonstrate how the owner/operator or developer will ensure that post-development off-site discharge rates shall not exceed the predevelopment discharge rates;

3. Unless otherwise specified, include calculations of off-site discharges for the existing and developed conditions computed using the 100-year return frequency storm and soil conservation service (SCS type II) design;

4. Contain plans for facilities that serve an area with ten (10) or more disturbed acres designed to capture the design storm in a detention or retention basin providing three thousand six hundred (3,600) cubic feet of storage per acre drained to reduce the "first flush" pollutant load. Where providing three thousand six hundred (3,600) cubic feet of storage per acre drained is not attainable, small sediment basins of equivalent total volume shall be used;

5. Include detention or retention ponds that shall have at least one foot (1') of freeboard

above the design storm, provide a paved emergency overflow and the maximum level in the pond to be one foot (1') below any finished floor level of the facility. Ponds shall also have permanent vehicle access for maintenance purposes. A plan for the routine maintenance of the ponds will be incorporated in the pollution prevention plan;

6. Include constructed wetlands if used to deal with the "first flush" pollutant load instead of the pond of three thousand six hundred (3,600) cubic feet per acre storage. Grit trap and oil separators must be installed upstream of the wetlands to prevent contamination;

7. Include in the pollution prevention plan a demonstration of how the facility will collect, control and treat stormwater so as to control the quantity and quality of stormwater leaving the site. The plan shall also include, as necessary, structural controls and nonstructural best management practices adequate to prevent the violation of any water quality standard, and shall meet the provisions of the clean water act (best conventional technology and best available technology treatment requirements).

C. The pollution prevention plan must be reviewed and approved by the manager prior to the issuance of a construction stormwater discharge permit.

D. The manager must receive an NOT or a certificate of occupancy for the facility or subdivision for a final inspection. (Ord. 1076 §1, 2009)

13.02.160: PERMIT APPLICATION FEES:

A. Each application for the issuance of a construction stormwater discharge permit under this article shall be accompanied by a minimum nonrefundable fee of fifty five dollars ($55.00) plus such additional fees for land disturbing activity or industrial activity as may be required below.

B. Each application for the issuance of a land disturbing permit under this article shall be accompanied by a nonrefundable permit fee of fifty five dollars ($55.00) per location.

C. Each application for an existing facility permit required by section 13.02.140 of this chapter shall be accompanied by a fee of fifty five dollars ($55.00). (Ord. 1076 §1, 2009)

13.02.170: MAINTENANCE AND SUBMITTAL OF RECORDS:

Appropriate proof and records of compliance with the provisions of a stormwater discharge permit or land disturbing permit shall be made available for the manager's review at any time. The owner/operator shall send a permit renewal request annually to the manager prior to the anniversary date of the permit. (Ord. 1076 §1, 2009)

13.02.180: TRANSFER OF PERMIT:

An industrial or construction stormwater discharge permit or land disturbing permit may be transferred to a subsequent owner/operator only upon the filing of an amended application containing all of the subsequent owner's/operator's information required on an application providing there are no changes in the operation of the facility which may affect the quantity or quality of the stormwater runoff. If there are to be any changes in the operation of the facility which may affect the quantity or quality of stormwater runoff, then the subsequent owner/operator shall resubmit, by NOI, for a stormwater discharge permit or land disturbing permit prior to the beginning of operation of the facility. The filing of an amended application shall be treated as an interim permit allowing the continued operation of the facility pending review of the amended application by the manager, which shall remain in force until the amended application shall be approved or denied by the manager. (Ord. 1076 §1, 2009)

13.02.190: SIGNATORY REQUIREMENTS:

A. All applications and reports required by this article to be submitted to the manager shall be signed:

1. By a responsible party (e.g., developer, owner/operator, contractor) with operational control over the project specifications and daily operations;

2. For a corporation, by an officer of the corporation, as authorized and in charge of principal business functions, or any other person as authorized to perform similar policy or decision making functions for the corporation;

3. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively;

4. For a municipality, state, federal or other public facility, by either a principal executive officer or the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. Any person signing any document required by this article shall make the following certification:

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete, I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or civil penalty.

(Ord. 1076 §1, 2009)

ARTICLE D. LAND DISTURBING ACTIVITY AND EROSION AND SEDIMENTATION CONTROL

13.02.200: GENERAL LAND DISTURBING ACTIVITY:

All land disturbing activities shall be in compliance with and after receiving a permit under this article. An application must be submitted to DEQ for a general OPDES permit. If a general OPDES permit is applied for, a copy of the NOI must be sent to the manager. To seek coverage under the general OPDES permit, the NOI must be submitted to the DEQ. (Ord. 1076 §1, 2009)

13.02.210: LAND DISTURBING ACTIVITY REGULATED:

A. It shall be unlawful for any person to conduct, or permit to be conducted, any land disturbing activity upon any land without a land disturbing permit issued under this article and a general OPDES permit, with a copy provided to the manager. Such permit shall be required in addition to any building permit or other permit required by this code for the site and shall be available for inspection by the manager on the job site at all times during which land disturbing activities are in progress. The phrase "land disturbing activity" shall not include the following:

1. Such minor land disturbing activities as home gardens and individual home landscaping, home repairs, home maintenance work and other related activities which result in minor soil erosion;

2. The construction of single-family residences when built separately on lots less than one acre not within a subdivision or which have been recorded in the office of stormwater quality management, and have been issued building permits; provided that excavation is limited to trenches for the foundation, basements, service and sanitary sewer connections, and minor

grading for driveways, yard areas and sidewalks, with no off-site discharge of pollutants;

3. Individual service and sanitary sewer connections for single- or two-family residences;

4. Agricultural practices involving the establishment, cultivation or harvesting of products of the field or orchard, preparing and planting of pastureland, forestry land management practices including harvesting, farm ponds, dairy operations and livestock and poultry management practices, and the construction of farm buildings;

5. Any project carried out under the technical supervision of the soil conservation service of the United States department of agriculture;

6. Installation, maintenance and repair of any underground public utility lines when such activity occurs on an existing hard surface road, street or sidewalk, provided the activity maintains pollution control and is confined to the area of the road, street or sidewalk which is hard surfaced and a street, curb, gutter or sidewalk permit has been obtained; and

7. Construction, repair or rebuilding of tracks of a railroad company.

These activities may be undertaken without the required permits; however, the persons conducting these excluded activities shall remain responsible for conducting these activities in accordance with the provisions of this article and other applicable laws including responsibility for controlling sedimentation and runoff both during the land disturbing activity and after the land disturbing activity is complete.

B. The minimum standards for controlling erosion and sedimentation from land disturbing activities shall be set forth in the "Best Management Practices Manual", as adopted and amended from time to time by resolution approved by the city council. A copy of the manual shall be maintained on file in the offices of the director, the city engineer and the manager. A copy of the manual shall be maintained in the office of the city clerk and may be viewed and copied in accordance with the provisions of this code. (Ord. 1076 §1, 2009)

13.02.220: PERMIT APPLICATION:

A. An application for the issuance of a land disturbing permit under this article shall include the following:

1. Name of the applicant;
2. Business or residence address of the applicant;
3. Name and address of the owner/operator of the subject property;
4. Address and legal description of the subject property;
5. Name and address of any contractor and any subcontractor(s) who will perform the land disturbing activity and who shall implement the erosion and sediment control plan;
6. A statement setting forth the nature, extent and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity; and
7. A copy of the NOI and erosion and sediment control plan.

B. Each application for a land disturbing permit shall be accompanied by a map or plat of the premises showing the present contour lines and the proposed contour lines resulting from the land disturbing activity in relation to all parts of the premises and the properties immediately adjacent thereto and in relation to all abutting street grades and elevations. Such map or plat shall show all proposed and existing drainage facilities and the proposed permanent disposition of surface waters upon completion of the land disturbing activity.

C. The erosion and sediment control plan shall accurately describe the potential for soil

erosion and sedimentation problems resulting from the land disturbing activity, and shall explain and illustrate the measures which are to be taken to control these problems. The length and complexity of the erosion and sediment control plan is to be commensurate with the size of the project, severity of the site condition and the potential for off-site damage. The erosion and sediment control plan shall contain a description of the existing site conditions, a description of adjacent topographical features, a description of soil types and characteristics of the area, potential problems of soil erosion and sedimentation, stabilization specifications, stormwater management considerations, a time schedule for completion of the land disturbing activity and for maintenance after completion of the project, clearing and grading limits, and all other information needed to accurately depict solutions to potential soil erosion and sedimentation problems. Any erosion and sediment control plan must comply with the "Best Management Practices Manual" and shall be reviewed by the manager prior to the issuance of the land disturbing permit. The land disturbing permit shall be issued within thirty (30) days of the submission of the plan if the application and the plan are approved by the manager.
D. At any time the manager determines that an erosion and sediment control plan does not comply with the provisions of this article, the manager shall notify the applicant in writing of all deficiencies within the plan. (Ord. 1076 §1, 2009)

13.02.230: SEDIMENT AND EROSION CONTROL:
No land disturbing activity shall be conducted within the city except in such a manner that:
A. Stripping of vegetation, regrading and other development activities shall be conducted so as to minimize erosion. Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Preconstruction vegetative ground cover shall not be destroyed, removed or disturbed more than ten (10) days prior to grading or earthmoving. Construction must be sequenced to minimize the exposure time of cleared surface area;
B. Upon completion of land disturbing activities, will not leave slopes so that they will erode. Such methods shall include revegetation, sodding, mulching, riprapping or guniting. Regardless of the method used, the objective will be to leave the site as erosion free and maintenance free as practicable;
C. Whenever feasible, natural vegetation shall be retained, protected and supplemented;
D. Permanent or temporary soil stabilization is applied to disturbed areas to the extent feasible within seven (7) days on areas that will remain unfinished for more than fourteen (14) days. Permanent soil stabilization with perennial vegetation shall be applied as soon as practicable after final grading is reached on any portion of the site. Soil stabilization refers to measures that protect soil from the erosive forces of wind, raindrop impact and flowing water, and includes the growing of grass, sod, application of straw, mulch, fabric mats, and the early application of gravel base on areas to be paved;
E. A permanent vegetative cover shall be established on disturbed areas not otherwise permanently stabilized;
F. Sediment in stormwater runoff is trapped by the use of debris basins, sediment basins, silt traps or similar measures, but not hay bales, until the disturbed area is stabilized;
G. Neighboring persons and property are protected from damage or loss resulting from excessive stormwater runoff, soil erosion or deposition upon property or public streets of water transported silt and debris. Adjacent property owners shall be protected from land devaluation

due to exposed bare banks;
H. A controlled construction entrance/exit is maintained in a condition that will prevent tracking or flowing of sediment onto the public right of way;
I. Erosion and sediment control measures must be in place and functional before earthmoving operations begin, and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workday, but must be replaced at the end of the workday;
J. Structural controls shall be designed and maintained as required to prevent pollution. All surface water flowing toward the construction area shall, to the extent practicable, be diverted by using berms, channels or sediment traps as necessary. Erosion and sediment control measures shall be designed according to the size and slope of disturbed or drainage areas to detain stormwater runoff and trap sediment. Discharges from sediment basins and traps must be through a pipe or lined channel so that the discharge does not cause erosion. Muddy water to be pumped from excavation and work areas must be held in settling basins or treated by filtration prior to its discharge into surface waters where practicable. Waters must be discharged through a pipe or lined channel so that the discharge does not cause erosion and sedimentation;
K. All control measures are inspected, and repaired as necessary, biweekly in dry periods and within twenty four (24) hours after any precipitation of one-half inch (0.5") or more within a twenty four (24) hour period. During prolonged precipitation, daily inspections and repairing must be performed. The permittee shall maintain records of such inspections and repairs;
L. A specific individual is designated to be responsible for erosion and sediment controls on each site;
M. There shall be no distinctly visible floating scum, oil or other matter contained in the stormwater discharge. The stormwater discharge must not cause an objectionable color contrast in the receiving water. The stormwater discharge must result in no materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life or fish and aquatic life in the receiving stream; and
N. When the land disturbing activity is finished and stable, perennial vegetation has been established on all remaining exposed soil. The permittee shall notify the manager of these facts and submit an NOT of the permit issued under this article. The manager shall then provide a final inspection of the site within twenty (20) days after receipt of such notice and, when advisable, may require additional measures to stabilize the soil and prevent erosion. If such requirements are given by letter, the permittee shall continue to be covered by the provisions of this article until a request for termination of the permit has been accepted by the manager. (Ord. 1076 §1, 2009)

ARTICLE E. STORMWATER QUALITY MANAGEMENT

13.02.240: STORMWATER QUALITY MANAGEMENT DIVISION ESTABLISHED:
The stormwater quality management division of the city of Warr Acres public works department is hereby created. Its functions shall be to design and implement compliance programs protecting the community's natural resources. (Ord. 1076 §1, 2009)

13.02.250: AUTHORITY OF STORMWATER QUALITY MANAGER:

A. There shall be a manager of stormwater quality management who shall manage the stormwater quality management division.

B. With respect to the city's compliance with environmental laws, the manager shall have the power and authority to perform the following acts:

1. Carry out all inspections, surveillance, enforcement and monitoring procedures necessary to determine compliance;

2. Administer the city's compliance with its NPDES permit to discharge from the municipal storm sewer system;

3. Inspect city and commercial properties for the presence of hazardous substances, and develop and administer whatever remediation programs are required;

4. Determine whether the city is in compliance with the federal and state clean water acts; whether the city has obtained all permits required by federal and state environmental laws; and whether the city is in compliance with the permits it has;

5. Audit use of herbicides, fertilizers and pesticides to determine compliance with the clean water act and to recommend alternative solutions where practicable for the reduction of their use through education and outreach programs;

6. Control the discharge of spills and the dumping or disposal of materials other than stormwater (e.g., industrial and commercial waste, trash, motor vehicle fluids, leaf litter, grass clippings, animal waste, etc.) into the municipal storm sewer system; and provide technical support for HAZMAT response;

7. Administer programs to identify and control pollutants from the transportation, storage, treatment and disposal of hazardous wastes; and monitor hazardous waste facilities that receive the city's resource conservation recovery act hazardous waste for treatment or disposal for compliance with NPDES permit requirements;

8. Assist in the protection of drinking water and surface water bodies which are a source of the city's drinking water;

9. Assist the city with the collection, transportation and disposal of solid waste, and with compliance with NPDES permit requirements;

10. Monitor the city's compliance with all federal, state and local laws; except that:

a. Administering the city's compliance with state and federal laws relating to discharge from the POTW is the responsibility of the wastewater department;

b. Administering the city's compliance with state and federal laws relating to the production and distribution of drinking water is the responsibility of the water department;

c. Administering the city's compliance with state and federal laws relating to the operation of the city's transfer station, recycling efforts and landfill programs are the responsibility of the sanitation department; and

d. Administering the city's compliance with state and federal laws relating to risk management and safety operations training and programs are the responsibility of the human resources department;

11. Perform such other administrative duties as may be assigned by the superintendent.

C. With respect to enforcement, the manager shall have the authority to:

1. Investigate violations of and enforce those aspects of the clean water act that are within the authority of local governments;

2. Investigate violations of and enforce this article;

3. Investigate violations of and enforce those provisions that relate to hazardous substances

and spills although primary enforcement will remain with the city fire department;

4. Investigate all other violations of and enforce environmental laws within the city and within the city's extended jurisdiction;

5. Perform other environmental activities as may be required to ensure compliance of environmental regulations by the city and others within the city and its extended jurisdiction.

D. With respect to other programs, the manager shall have the authority to:

1. Monitor and coordinate with other city departments on the city's response to releases of hazardous substances;

2. Review and assess the environmental hazards of real property involved in city land transactions;

3. Monitor the use of city rights of way, property and easements by persons with use agreements for environmental monitoring;

4. Establish and supervise a program for the collection of hazardous household waste;

5. Create, promote, and publicize educational programs for environmental awareness; and

6. Provide quantitative data through field screening programs. (Ord. 1076 §1, 2009)

ARTICLE F. ADMINISTRATION

13.02.260: MONITORING:

The manager shall monitor the quantity of, and the concentration of, pollutants in stormwater discharges from the areas and locations as designated in the city of Warr Acres stormwater management plan. (Ord. 1076 §1, 2009)

13.02.270: ILLICIT CONNECTIONS AND IMPROPER DISPOSAL:

A. The manager shall take appropriate steps to detect and eliminate illicit connections to the stormwater drainage system, including the adoption of a program to screen illicit discharges and identify their source or sources.

B. The manager shall take appropriate steps to detect and eliminate improper discharges, including instituting programs to screen for improper disposal and programs to provide for public education, public information and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials and hazardous household waste. (Ord. 1076 §1, 2009)

13.02.280: MANAGER INSPECTIONS:

A. The manager, bearing proper credentials and identification, may enter and inspect all properties for regular periodic inspections, investigations, monitoring, observation, measurement, enforcement, sampling and testing, to effectuate the provisions of this article and the stormwater management program. The manager shall duly notify the owner/operator and the inspection shall be conducted at reasonable times.

B. In the event the manager reasonably believes that discharges from the property into the city's stormwater system may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any place at any time and without notice to the owner/operator. The inspector shall present proper credentials upon reasonable request by the owner/operator.

C. Upon refusal by any owner/operator to permit an inspector to enter or continue an

inspection, the inspector shall terminate the inspection or confine the inspection to areas concerning which no objection is raised. The inspector shall immediately report the refusal and the grounds to the manager. The manager may seek appropriate compulsory process.
D. At any time during the conduct of an inspection or at such other times as the manager may request information from an owner/operator, the owner/operator may identify areas of the property, facility or establishment, material or processes which contain or might reveal confidential information. If the manager has no clear and convincing reason to question such identification, the inspector shall nonetheless inspect; however, the inspection report shall not contain any of the confidential information. (Ord. 1076 §1, 2009)

ARTICLE G. ENFORCEMENT AND ABATEMENT

13.02.290: UNAUTHORIZED DISCHARGE A PUBLIC NUISANCE:
Discharge of stormwater in any manner in violation of this chapter or of any condition of a permit issued pursuant to this article or a stormwater discharge permit issued by the state is hereby declared a public nuisance and must be corrected or abated by the owner/operator. (Ord. 1076 §1, 2009)

13.02.300: ILLICIT DISCHARGE AND ILLEGAL DUMPING:
A. The following direct or indirect discharges into community waters or waters of the state are prohibited and shall be unlawful:
1. Sewage dumping or dumping of sewage sludge;
2. Chlorinated swimming pool discharge;
3. Discharge of any polluted household wastewater such as, but not limited to, laundry wash water and dishwater, except to a sanitary sewer or septic system;
4. Leaking sanitary sewers and connections, which shall have remained uncorrected for seven (7) days or more;
5. Leaking water lines that shall have remained uncorrected for seven (7) days or more;
6. Commercial, industrial or public vehicle wash or power wash discharge;
7. Garbage, rubbish or sanitary waste disposal;
8. Dead animals or animal fecal waste;
9. Non-stormwater discharges, except pursuant to a permit issued by the state and the city;
10. Dredged or spoil material;
11. Solid waste;
12. Chemical waste; and
13. Wrecked or discarded vehicles or equipment. (Ord. 1076 §1, 2009)

13.02.310: NPDES PERMIT REQUIRED:
A. Every person who is or who is planning to carry out any of the activities requiring a permit shall obtain such a permit prior to carrying out such activities.
B. It shall be unlawful for any person to carry out any of the following activities, except in accordance with the conditions of a valid permit:
1. The alteration of the physical, chemical, radiological, biological or bacteriological properties of any of the waters of the state or community waters;
2. The construction, installation, modification or operation of any treatment works or part

thereof, or any extension or addition thereto;

3. The increase in volume or strength of any wastes in excess of permissive discharges specified under any existing permit;

4. The development of a natural resource or the construction, installation or operation of any establishment or any extension or modification thereof or addition thereto, the operation of which will or is likely to cause an increase in the discharge of wastes into the waters of the state or would otherwise alter the physical, chemical, radiological, biological or bacteriological properties of any waters of the state in any manner not already lawfully authorized;

5. The construction or use of any new outlet for the discharge of any wastes into the waters of the state;

6. The discharge of sewage, industrial wastes or other wastes into waters, or a location from which it is likely that the discharged substance will move into waters; and

7. The discharge of sewage, industrial wastes or other wastes into a well or a location where it is likely that the discharged substance will move into a well, or the underground placement of fluids and other substance which do or may affect the waters of the state. (Ord. 1076 §1, 2009)

13.02.320: DISCHARGES:

A. In the event of a significant spill or any other discharge that could constitute a threat to human health or the environment, the discharger, the owner/operator or the facility shall give notice to the manager and the field office of the DEQ as soon as practicable, but in no event later than the close of business on the day following the significant spill or other discharge or the day the discharger, owner/operator or the facility becomes aware of the discharge. If an emergency response by governmental agencies is needed, the discharger must also call 911 immediately to report the discharge. A written report must be provided within five (5) days of the time the discharger becomes aware of the discharge, unless this requirement is waived by the manager for good cause shown, on a case by case basis, containing the following particulars:

1. A reasonably precise description of the discharge;
2. The exact date and time of discharge; and
3. Steps being taken to eliminate and prevent recurrence of the discharge.

B. The owner/operator shall take all reasonable steps to minimize any adverse impact to the community waters or the waters of the state, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. It shall not be a defense for the discharger in an enforcement action that it would have been necessary to halt or reduce the business or activity of the facility in order to maintain water quality and minimize any adverse impact that the discharge may cause.

C. It shall be unlawful for any person to fail to comply with the provisions of this article. (Ord. 1076 §1, 2009)

13.02.330: ADMINISTRATIVE ENFORCEMENT REMEDIES:

A. Whenever the manager finds that any permittee or any person discharging stormwater has violated or is violating this chapter, or a stormwater permit or order issued hereunder, the manager may serve upon said person or permittee written notice of the violation. Within ten (10) days of the receipt date of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be

submitted to the manager. Submission of this plan in no way relieves the discharger of liability or criminal prosecution for any violations occurring before or after receipt of the notice of violation.

B. The manager is hereby empowered to enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with the person responsible for the compliance or for the noncompliance. Such orders will include specific action to be taken by the discharger and the owner/operator to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to subsection D of this section.

C. The manager has the authority to order any person who causes or contributes to a violation of this chapter or stormwater permit or order issued hereunder to show cause why a proposed enforcement action should not be taken. Notice shall be served specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any individual or the principal executive, general partner or manager of any legal entity or person of legal age at the office or business address of the permittee.

D. When the manager finds that any person has violated or continues to violate this chapter or a permit or order issued hereunder, the manager may issue an order to the violator directing that, following a specified time period, adequate structures or devices be installed or procedures implemented and properly operated, supervised and administrated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring and best management practices.

E. When the manager finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the manager may issue an order to cease and desist all such violations and direct those persons in noncompliance to:

1. Comply forthwith; or
2. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

F. A person receiving an order may file a written notice of appeal with the superintendent and manager, no later than the tenth calendar day after receipt of the order. Such notice shall include an explanation as to why the person believes the enforcement action should not be taken. The superintendent shall determine whether the appeal has merit. If the superintendent determines that the appeal has merit, he/she shall rescind the order. (Ord. 1076 §1, 2009)

13.02.340: DECLARED UNLAWFUL:

A. It shall be unlawful for any person to:

1. Violate any provision of this chapter;
2. Violate the provisions of any permit issued pursuant to this chapter;
3. Fail or refuse to comply with any lawful notice to abate issued by the manager within the time specified by such notice; or
4. Violate any lawful order of the manager within the time allowed by such order.

B. Any person found to be in violation of any provision of this chapter shall be punished by a fine plus costs. Each and every day on which a violation occurs or continues to occur shall be deemed a separate offense. (Ord. 1076 §1, 2009)

13.02.350: JUDICIAL PROCEEDINGS AND RELIEF:

A. The manager is authorized to initiate proceedings in any court of competent jurisdiction against any person who has or is about to:

1. Violate the provisions of this chapter;
2. Violate the provisions of any permit issued pursuant to this chapter;
3. Fail or refuse to comply with any lawful order issued by the manager, which has not been timely appealed to the appropriate court within the time allowed by this chapter;
4. Violate any lawful order within the time allowed by such order.

B. Any person found to have committed any act declared unlawful or failing to perform any act required by or under this chapter shall be in violation of this chapter and shall be punished by a fine plus costs. Each and every day on which a violation occurs or continues to occur shall be deemed a separate offense.

C. The manager, with consent of the city council, may also initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for any damages caused to publicly owned stormwater facilities by any person, and to seek injunctive or other equitable relief to enforce compliance with the provisions of this chapter or to enforce compliance with any lawful orders.

D. The manager, with the consent of the superintendent, may petition the DEQ to regulate and prosecute stormwater dischargers which cannot be adequately controlled by municipal resources. (Ord. 1076 §1, 2009)

13.02.360: PETITION FOR RECONSIDERATION:

A. Any person subject to: a denial of a permit issued under this chapter; a compliance order; a stop work order; an emergency suspension of utility service; or any other enforcement action in this chapter which allows for reconsideration and hearing under this article, may petition the superintendent or manager to reconsider the basis for the action. In order for the petition to be reconsidered, it shall be filed with the superintendent or the manager no later than the tenth calendar day after receipt of the notice/order.

B. Failure to submit a timely written petition for reconsideration shall be deemed to be a waiver of any further right to administrative reconsideration or review of the action.

C. In its petition, the petitioner shall indicate the action objected to, and the reasons for the objection(s), any facts that are contested, the evidence that supports the petitioner's view of the facts, any alternative terms of an order that the petitioner would accept, whether the petitioner requests a hearing on its petition and the address where notice of hearing will be received and accepted.

D. The effect of a compliance order or stop work order shall be stayed pending the superintendent's or the manager's reconsideration of the petition, and any hearing thereon, unless the superintendent or the manager expressly makes a written determination to the contrary. The effect of an emergency suspension of utilities shall not be stayed pending the superintendent's or the manager's reconsideration or any hearing, unless the superintendent or

the manager expressly, and in writing, stays the emergency order.
E. Within a reasonable time of the submittal of a petition for reconsideration, the superintendent or the manager shall either grant the petition and withdraw or modify the order or modify or grant the permit accordingly; deny the petition if no material issue of fact is raised; or if a hearing has been requested and/or a material issue of fact has been raised, set a hearing on the petition. (Ord. 1076 §1, 2009)

13.02.370: HEARINGS:
A. The superintendent is authorized to set a hearing if the superintendent determines that a show cause hearing should be conducted, if grounds exist to revoke or suspend a permit issued under this chapter, or if grounds exist to terminate utilities on a nonemergency basis.
B. Written notice of the hearing shall be served on a petitioner/violator at least ten (10) days prior to the hearing. Notice shall be served in person or by fax or certified mail, return receipt requested.
C. Notices shall specify the date, time and place of the hearing.
D. Notice that is mailed shall be deemed received five (5) days after it is placed in a mail receptacle of the United States postal service.
E. No decision may be rendered at a hearing by reason of the petitioner's/violator's failure to appear unless proof of service is shown.
F. For purposes of this section, the superintendent shall be empowered to administer oaths and to promulgate procedural rules for the conduct of the hearing.
G. Whenever any deadline specified in this section falls upon a Saturday, Sunday or a city recognized holiday, the deadline shall be the next regular city business day.
H. The date of an order or ruling required to be made under this section shall be deemed to be the date it is signed.
I. Decisions shall be based on a preponderance of the evidence. The city shall have the burden of proof in all hearings except permit denial hearings. In permit denial hearings, the burden of proof shall be on the petitioner.
J. The superintendent shall act as the hearing officer.
K. After the conclusion of the hearing, the superintendent shall make written findings of fact and conclusions of law and shall issue a written decision without undue delay.
L. A hearing shall exhaust all administrative remedies of the petitioner/violator. (Ord. 1076 §1, 2009)

13.02.380: VARIANCES:
A. The superintendent may grant a revocable variance from the requirements of this chapter providing to do so would not result in the violation of any state or federal law or regulation and if exceptional circumstances applicable to the site exist such that strict adherence to the provisions of this chapter will result in unnecessary hardship and will not result in a condition contrary to the intent of this chapter.
B. A written petition for a variance shall be required and shall state the specific variance sought and the reasons, with supporting data, why a variance should be granted. The request shall include all information necessary to evaluate the proposed variance. The petition shall be filed with the manager.
C. The manager shall conduct a review of the request for a variance within ten (10) days after

receipt and may either support the petition or may object to the petition. If the manager objects to the variance, the manager shall state the reasons therefor.
D. Once the manager's review is complete or the ten (10) days for review have expired, the petition shall be subject to action at the discretion of the superintendent. (Ord. 1076 §1, 2009)

ARTICLE H. SUPPLEMENTAL PERMIT CLASSIFICATIONS AND REQUIREMENTS

13.02.390: MOBILE COMMERCIAL COSMETIC CLEANING PERMIT AND REGISTRATION REQUIRED:
A. A person commits an offense if the person knowingly engages in mobile commercial cosmetic cleaning without a valid permit issued by the superintendent.
B. A person commits an offense if the person knowingly operates or causes to be operated a mobile commercial cleaning vehicle that is not registered with the superintendent. (Ord. 1076 §1, 2009)

13.02.400: PERMIT APPLICATION PROCEDURES:
A. A person required by section 13.02.390 of this chapter to have a permit shall complete and file a permit application on a form prescribed by the superintendent.
B. The superintendent may require any information on an application that the superintendent believes is necessary to ensure that best management practices are implemented by the permittee and that the permittee does not cause contamination of surface water, stormwater, waters of the state, waters of the community or groundwater within the city.
C. The application shall include a description and the vehicle license registration number of each vehicle to be registered under the permit. All motor vehicles and trailers used to transport cosmetic cleaning rigs shall be registered. However, a motor vehicle which is used to tow a trailer registered with the superintendent and which is not used to transport a cosmetic cleaning rig itself shall not be required to be registered.
D. Any applicant who utilizes wash water recycling units shall list all sanitary sewer discharge locations and other disposal sites the applicant intends to use.
E. An industrial pretreatment permit may also be required under section 43-288 of this code. (Ord. 1076 §1, 2009)

13.02.410: ISSUANCE OF PERMIT AND REGISTRATION CERTIFICATES:
A. The superintendent may issue a permit and registration certificates after the applicant pays all applicable fees, unless the superintendent has cause to deny such permit. The superintendent shall provide for procedures to add registered vehicles to a permit during its term.
B. A permit shall be valid for one year from the date of its issuance, unless suspended or revoked, and is not transferable. Registration certificates shall be valid for the term of the permit.
C. The annual fee for a permit and a registration certificate issued under this article shall be one hundred dollars ($100.00). The fee for each additional registration certificate shall be fifty dollars ($50.00).
D. The superintendent will issue a registration certificate for each vehicle registered under a permit and list the registration certificate number on the permit. A registration certificate is not

transferable.
E. The superintendent will issue a registration certificate for each vehicle registered under a permit. The certificate shall be of a size and design determined by the superintendent. (Ord. 1076 §1, 2009)

13.02.420: DISPLAY OF REGISTRATION NUMBERS AND CERTIFICATES:
A. A permit holder shall have the registration certificate numbers permanently displayed on each of its vehicles registered under the permit as follows:
1. The registration certificate number shall be placed on both sides of the vehicle in a location approved by the superintendent.
2. The registration certificate number shall be in numerals of a minimum height of three inches (3"), in a color contrasting to their background, and in a visible location.
B. A permit holder shall maintain a registration certificate number on each registered vehicle in a location approved by the superintendent.
C. A person commits an offense if the person operates or causes to be operated a mobile commercial cosmetic cleaning vehicle which does not properly display the registration certificate number assigned to the vehicle by the superintendent.
D. A person commits an offense if the person operates or causes to be operated a mobile commercial cosmetic cleaning vehicle without a valid registration certificate in the vehicle. (Ord. 1076 §1, 2009)

13.02.430: PERMIT CONDITIONS:
As a condition of receiving and maintaining a permit under this article, a permit holder shall comply with the following:
A. A permit holder shall immediately notify the superintendent of any management changes in the business during the time the permit is in effect.
B. A permit holder shall submit samples of wash water and/or wastewater to the superintendent immediately upon his demand.
C. A permit holder who utilizes wash water recycling units shall:
1. Notify the superintendent in writing of all changes in disposal sites it wants to use during the permit period;
2. Discharge wash water into the sanitary sewer only at those sites listed in its permit application and its notices under subsection C1 of this section; and
3. Before the end of each permit period:
a. Test or cause to be tested a certified representative sample of its recycled wash water against the discharge limits established by the city;
b. Report the results of such tests in writing to the industrial waste monitor of the wastewater department and send a copy to the department; and
c. Sign and certify the report as required by this chapter.
d. A permit holder shall immediately notify the superintendent when it sells or otherwise disposes of a vehicle registered under this article.
e. A permit holder shall ensure that all of its employees engaged in mobile commercial cosmetic cleaning are knowledgeable of the discharge prohibitions to the municipal storm sewer system under this chapter, and shall require all its employees to use best management practices when engaging in mobile commercial cosmetic cleaning. For exterior cleaning, best

management practices shall include, but not be limited to, the following:

(1) Accumulations of oil and grease, which have not dried, shall be precleaned with absorbent clay (kitty litter) or a similar material and properly disposed of prior to washing.

(2) Storm sewer entrances, which will receive the wash water, shall be screened to catch leaves and other debris. Wash water discharge shall comply with this chapter.

(3) Wash water discharged to the municipal storm sewer system shall first pass through an oil absorbent boom or pad to absorb hydrocarbons so that no oil sheen is present on the discharge. Wash water discharge shall comply with this chapter.

(4) Wash water which does not comply with this chapter shall be discharged into the sanitary sewer. Discharge shall be at the job site when possible. Wash water from recycle rigs which does not comply with this chapter shall be disposed of in compliance with subsection C3i of this section. Grit and sludge shall not be disposed of through the sanitary sewer.

f. A permit holder shall ensure that all of its vehicles registered under its permit display the registration numbers and carry certificates as required by this article, and shall not allow unregistered vehicles or vehicles without certificates to engage in mobile commercial cosmetic cleaning.

g. A permit holder shall not discharge to the municipal storm sewer system in violation of this chapter.

h. A permit holder shall not discharge wastewater to the sanitary sewer in violation of this chapter or any other provision of this code.

i. A permit holder shall not discharge wastewater into the sanitary sewer, either on a job site or off a job site, without the permission of the owner/operator of the property upon which the sanitary sewer inlet is located. The permit holder shall provide proof of such permission to the superintendent upon demand.

j. Any person operating a vehicle transporting cosmetic cleaning wash water or wastewater which is leaking or spilling from such vehicle is hereby declared to have committed a violation of this chapter.

k. A permit holder shall not create or maintain a nuisance in violation of the provisions of this code. (Ord. 1076 §1, 2009)

13.02.440: PERMIT DENIAL AND REVOCATION:

A. The superintendent may deny a permit, or after notice and hearing, revoke a permit if:

1. The permit application contains a false or misleading statement of a material fact;

2. If the permit holder engages in operations that do not consist solely of cosmetic cleaning; or

3. If the permit holder or an employee of the permit holder has violated a permit condition.

B. An applicant whose permit is denied will be sent notification by the superintendent in writing of the denial and the grounds therefor. Such notice will be sent certified mail, return receipt requested, to the mailing address listed on the application.

C. An applicant whose permit is denied may request a reconsideration no later than the tenth calendar day after receipt of the notice of denial stating the reasons and basis for the denial by filing the appeal with the superintendent.

D. A permit may also be suspended or revoked under the procedures of this chapter. (Ord. 1076 §1, 2009)

13.02.450: LANDSCAPE MAINTENANCE:

A. No person shall dump, spill, leak, pump, pour, emit, empty, discharge, leach, dispose of or otherwise introduce or cause, allow or permit to be introduced any of the following substances into the municipal storm sewer system:

1. Garbage;
2. Rubbish;
3. Yard waste;
4. Sediment; or
5. Floatable materials. (Ord. 1076 §1, 2009)

13.02.460: APPROPRIATION OF FUNDS:

All fees, damages and penalties collected under the provisions of this chapter, following adjustment for the expenses incurred in making such collections, shall be allocated and appropriated to stormwater quality for the administration of its stormwater management program. (Ord. 1076 §1, 2009)

APPENDIX G

City of Warr Acres

Illicit Discharge Detection & Elimination Manual

2025

City of Warr Acres
4301 North Ann Arbor Ave
Warr Acres, OK 73122

For concerns related to Illicit Discharge Detection and Elimination or for reporting pollution into stormwater runoff contact the Warr Acres City Hall at
(405) 789-2892

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APPENDICES

ACRONYMS

ODEQ	Oklahoma Department of Environmental Quality
EPA	Environmental Protection Agency
IDDE	Illicit Discharge Detection and Elimination
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
PWD	Public Works Director or designee
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
CWA	City of Warr Acres

1.0 INTRODUCTION AND PURPOSE

This manual presents the standard protocol which the City of Warr Acres (CWA) will utilize to implement its Illicit Discharge Detection and Elimination (IDDE) Program. The manual provides written procedures to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to CWA's small municipal separate storm sewer system (MS4). The written procedures are required to be developed, implemented, and updated by CWA as a condition of the city's MS4 General Permit (General Permit). The General Permit authorizes stormwater discharges from MS4s to surface waters in urbanized areas of the City of Oklahoma City. The General Permitting mechanism is designed to prevent pollutants from entering water bodies through stormwater runoff.

The MS4 Program is part of the Federal National Pollutant Discharge Elimination System (NPDES), which is authorized through the Clean Water Act. With delegation from the Environmental Protection Agency (EPA), MS4 General Permits in Oklahoma are administered by the Oklahoma Department of Environmental Quality (ODEQ). This manual was developed in general accordance with the EPA's, *"Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments."* To ensure compliance with IDDE requirements of the General Permit, CWA is required to perform the procedures outlined in this manual.

CWA's IDDE Program Manual includes five distinct components:

- **Training** – Procedures to train applicable operations and maintenance staff are discussed in Section 2.0 of this manual.
- **Administration/Documentation** – For CWA to demonstrate compliance to the conditions of the General Permit, documentation of IDDE activities performed is paramount. This is discussed in Section 2.0 of this Manual from field through administrative responsibilities.
- **Identification of an Illicit Discharge** – Procedures to screen, identify, and report questionable illicit discharges are outlined in Sections 3.0 and 4.0 of this manual.
- **Investigating the source of an Illicit Discharge** – Procedures to investigate potential illicit discharges that have been identified or reported are outlined in Section 5.0 of this manual.
- **Elimination of an Illicit Discharge** – Procedures to eliminate illicit discharges that have been confirmed through the investigation effort are outlined in Section 6.0 of this manual.

2.0 PROGRAM ADMINISTRATION/DOCUMENTATION

The General Permit requires CWA to provide training once every 12 months to applicable operations and maintenance staff in recognition and reporting of illicit discharges. This manual serves as the training material to meet the General Permit requirement.

The written procedures herein serve as the foundation of a successful IDDE Program and help to achieve General Permit compliance. However, implementation of the procedures is critical for achieving the IDDE Program goal to eliminate non-stormwater discharges to CWA's storm sewer system and ultimately receiving waters. As referenced throughout this manual, the IDDE Program relies on supplemental materials to assist with implementation and documentation. Documentation that procedures have been implemented is critical to demonstrate permit compliance in the case of a regulatory audit. Operations and maintenance staff who are identified for IDDE training should be familiar with each Section of this Manual, CWA's IDDE Field Guide, and the supplemental materials provided in the Appendices of this Manual, which include:

- **Outfall Inspection Form** – This form is used for outfall screening to assist in determining the potential of an illicit discharge. The form is located in Appendix A.
- **IDDE Tracking Form** – A form to assist with ensuring documentation required by the General Permit for each investigation regarding any suspected illicit discharge. To be completed by the PWD; but required information may be needed from operations and maintenance staff to assist with the completion of the form. The form is located in Appendix B.
- **Reportable Discharge Form** – This form is used for reporting an illicit discharge to ODEQ. The form is located in Appendix C.

In addition to the documentation above, CWA incorporates by reference the following:

- **IDDE and Post-Construction Stormwater Facility Maps** – Identifies the locations of all outfalls that are required to be screened. These maps are intended to be used when conducting the annual inspection and tracking illicit discharges.
- **Outfall Inventory** – Provides a list of outfalls and attributes required by the General Permit.

As highlighted throughout this Manual, documentation of illicit discharge reports, investigations, and elimination actions is critical for demonstrating compliance to the General Permit. In the case of an illicit discharge, CWA's General Permit requires, at a minimum, the following information:

- ✓ The date or dates that the illicit discharge was observed and reported;
- ✓ The results of the investigation, including the source, if identified;
- ✓ Any follow-up of the investigation;
- ✓ Resolution of the investigation; and
- ✓ The date that the investigation was closed.

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A discharge may require reporting to ODEQ and any interconnected MS4s; therefore, the discharge must be properly documented by CWA on the IDDE Tracking Form. This will enable CWA to access this information if future requests are received concerning the discharge in question. The information will also be included in annual reporting described in the following section.

2.1 Annual Reporting to ODEQ

CWA must annually report to ODEQ information pertaining to its IDDE efforts. The information is included in CWA's MS4 Annual Report due March 1st of each year. Information required for reporting includes:

1) A confirmation statement that the Outfall & Post Construction Stormwater Facility maps and Outfall Inventory have been updated to reflect any changes to the MS4 occurring on or before June 30th of the reporting year;
2) The total number of outfalls screened during the reporting period as part of the dry-weather screening program; and
3) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:
   (a) The source of illicit discharge;
   (b) The dates that the discharge was observed, reported, or both;
   (c) Whether the discharge was discovered by the permittee during dry-weather screening, reported by the public, or other method (describe); and
   (d) How the investigation was resolved.

2.2 IDDE Manual Updates and Modifications

Modifications to the IDDE Manual may occur as part of an iterative process to protect water quality. Updates and modifications to this Manual shall be consistent with the conditions of the General Permit and documented in the annual report.

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3.0 IDENTIFICATION OF AN ILLICIT DISCHARGE

Municipal separate stormwater sewer system (MS4) means a conveyance, or system of conveyances, that ultimately discharge into surface waters or wetlands. That is, any system of drainage from roads, parking lots, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that convey stormwater is part of the MS4. These conveyance systems are vulnerable to contamination. Substances other than stormwater that enter receiving waters may be considered an illicit discharge and elimination of those discharges is the focus of this Manual. An illicit discharge can:

1. Be a measurable flow from a storm drain during dry weather that contains pollutants or pathogens;
2. Have a unique frequency, composition, and mode of entry in the storm drain system;
3. Be caused when the sewage disposal system interacts with the storm drain system; or
4. Be discharges from pollutants from specific source areas and operations known as "generating sites." Generating sites are identified in the CWA Good Housekeeping & Pollution Prevention Manual.

3.1 Defining an Illicit Discharge

For the purpose of CWA's IDDE Program, an illicit discharge is defined as:

> *Illicit Discharge - Any discharge to an MS4 that is not composed entirely of stormwater, except discharges specifically identified in the CWA Storm Water Management Plan and determined not to be a significant contributor of pollutants to the MS4.*

Most sources of an illicit discharge on the CWA are likely to originate from a generating site or activity, such as a washing area or vehicle maintenance area. These could result from daily practices or from a specific spill incident. Table 1 provides source pollutants that could be generated from city owned property.

Table 1. Examples of source pollutants of an illicit discharge.

• Automotive fluids (oil, fuel, antifreeze)	• Landscape waste (grass clippings, etc.)
• Cooking oil and grease	• Improperly applied fertilizer
• Solvents	• Sediment
• Paints	• Vehicle wash water
• Chemical cleansers (detergents, soaps)	• Sanitary sewer wastewaters
• Improperly applied pesticides/herbicides	• Dumpster leachate
• Improperly managed salts	• Trash

The regulations do have exemptions for some non-stormwater discharges that would not be considered an illicit discharge if not a significant contributor of pollutants to the MS4. Table 2 includes some of the discharges relevant to CWA that are not a significant contributor of pollutants; and therefore, are not considered illicit discharges. If there is uncertainty of the source or constituents within an observed discharge, the CWA should be contacted immediately so a determination can be made.

Table 2. Examples of sources that are not considered illicit discharges.

• Fire-fighting activities*	• Air conditioning condensate
• Water line flushing	• Footing or foundation drains
• Landscape/lawn irrigation	• Springs
• Diverted stream flows	• Water from crawl space pumps
• Rising groundwater	• Dechlorinated swimming pool wastewater
• Uncontaminated groundwater infiltration	• Discharges from potable water sources
• Uncontaminated pumped groundwater	• Flows from riparian habitats and wetlands
• Individual residential car washing	• Street wash water
• Noncommercial fundraising car washes if the washing uses only biodegradable, phosphate-free, water-based cleaners	• Other activities generating discharges identified by the department as not requiring CWA authorization

* Discharges or flows from fire-fighting activities need only be addressed where they are identified as significant sources of pollutants to surface waters.

3.2 Outfall Map and Inventory

An outfall is a point where CWA's MS4 discharges concentrated flow to surface waters, such as at the end of a pipe or open drainage channel. Generally, these are the locations that drain stormwater from city limits and can be evaluated routinely to identify potential pollutants. Action can then be taken to prevent these pollutants from traveling downstream. The General Permit requires CWA to maintain storm sewer maps and an outfall information table as part of the IDDE Manual. CWA may elect to map the known point of discharge location closest to the actual outfall when the outfall is located outside of CWA's legal responsibility.

CWA's outfall maps illustrate the locations of the outfalls from the storm sewer system and the receiving waterway. The outfall maps are a critical component of the outfall inspection and serves as a tool to identify potential pollutant generating sites, the storm sewer layout adjacent to the sites, and the locations where the storm sewer discharges to a waterway or the point of discharge off the MS4.

An illicit discharge identified within the CWA may originate from an upstream interconnected MS4. Contacts to interconnected MS4s are included on the maps for reporting a potential off-site pollutant source. The upstream MS4 should be notified immediately so to identify and eliminate the pollutant source.

The General Permit also requires CWA to maintain an Outfall Information Table that includes permit-required attributes for each outfall. The PWD should maintain a copy of both the IDDE maps and the Outfall Information Table for review upon request by the public or ODEQ. The documents should be updated when changes to existing outfalls are found or new outfalls are added with new construction.

3.3 Awareness During Daily Activities and Operations

Potential illicit discharges can be identified and removed prior to entering the storm sewer system with effective inspections and appropriate follow-up when pollutants have the potential to be exposed to precipitation, and subsequently, stormwater runoff. CWA's Facilities staff are in the best position to identify these pollutants such as those identified in Table 1. Figure 1 provides several examples of the observations and actions that could prevent an illicit discharge. If the observer is not qualified or appropriately trained to take the appropriate action, or if illegal dumping is observed, notify the (PWD) or designee. The CWA Good Housekeeping &Pollution Prevention Manual can also be referenced for instruction on appropriate actions.

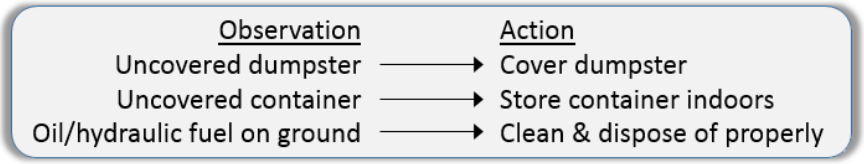

Figure 1. Example daily observations and subsequent actions that can prevent an illicit discharge.

3.4 Special Local Water Quality Concerns

CWA's MS4 ultimately discharges to receiving waters that have been identified by ODEQ to not meet water quality standards. Subsequent studies, called Total Maximum Daily Load (TMDL) studies, have been performed by ODEQ. The TMDL studies identify specific pollutants causing the impairments to the receiving waters and designate the amount of the pollutant the receiving water can assimilate to achieve water quality standards. A required reduction of the pollutant is typically assigned to the MS4s that drain to the impaired segment of the waterway. It is important that CWA's maintenance and operations employees be aware of these special pollutants shown in Table 3.

Table 3. Special pollutants of concern.

Waterbody Name	WBID	Pollutant of Concern
Lake Hefner	OK620910040200_00	Mercury
	OK620910040200_00	Dissolved Oxygen

3.5 Reporting Procedures

CWA Facilities staff are the first line of defense for preventing generating sites from contributing to an illicit discharge. If Facilities staff detects an Illicit discharge as defined in Section 3.0, report the illicit discharge immediately to the Public Works Director or designee who shall report the discharge to ODEQ within 24 hours.

Adjoining counties and municipalities have interconnected MS4s with CWA, meaning there is stormwater being conveyed to and from CWA property via a point source discharge. Any report from an interconnected MS4 of an illicit discharge originating from a CWA should be immediately reported to the PWD for investigation and documentation.

Actions that are taken to prevent an illicit discharge are designated as good housekeeping practices and do not need to be reported to ODEQ. Facilities staff shall report a good housekeeping issue within 24 hours to the PWD. A Findings & Follow-up Form shall be used to document good housekeeping issues. See the Good Housekeeping and Pollution Prevention Manual for reporting procedures concerning good housekeeping issues.

An illicit discharge may also be reported by other individuals that are not trained or authorized to perform necessary actions, such as reports from persons of general public. These individuals may recognize an illicit discharge after learning about pollution in stormwater runoff through CWA's public education and outreach efforts. The CWA stormwater webpage directs these individuals to contact the PWD, who will subsequently perform the appropriate follow-up action and complete the documentation. If Facilities staff is notified of an illicit discharge, the appropriate action should be taken, and the PWD shall be notified. Figure 2 summarizes this procedure.

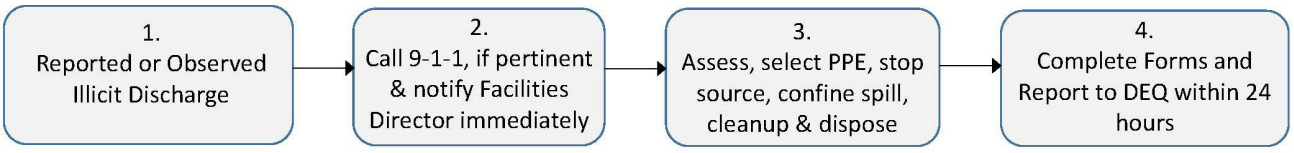

Figure 2. IDDE Reporting procedures for CWA Facilities staff.

If an illicit discharge has occurred, the PWD will then document the report with the IDDE Tracking Form provided in Appendix B. The PWD shall also complete the Reportable Discharge Form in Appendix C for documentation purposes. Facilities staff should be familiar with these forms to assist with providing the necessary information required to complete the forms. Refer to the guidance in Appendix D for more in depth procedures to follow if an illicit discharge is detected.

4.0 OUTFALL SCREENING

In an effort to detect, identify, and eliminate illicit discharges to CWA, an annual outfall inspection is required by the Program Plan under the General Permit for all of the outfalls identified by the CWA. In the case that illicit discharges are observed at specific outfalls and the source is not identified or eliminated, subsequent screening at a higher frequency may be necessary.

4.1 Dry-Weather Outfall Screening

Outfall screening shall be performed during dry weather using the Outfall Inspection Form provided in Appendix A. Completion of the form serves as the appropriate documentation that the required outfall screening has been performed and should be retained on file for a minimum of 3 years. Outfalls that are flowing during dry weather may indicate an active pollution issue, depending if rain has occurred during the last 24 to 48 hours. Special attention should be paid to outfalls that are flowing especially when no rain has occurred within the last 48 hours. When the screening of an outfall indicates an illicit discharge, the CWA PWD shall be notified within 24 hours so an investigation, as described in Section 5.0, can be performed and an IDDE Tracking Form completed.

The Outfall Inspection Form includes the following sections, which are to be completed for each outfall during outfall screening:

- ***Section 1: Background Data*** – Requires general information regarding when and where the screening was performed, weather conditions at the time of the screening, and references to any photos taken. Tips for completing Section 1 include:
  - ✓ The Outfall ID can be found on the IDDE map. Update map to reflect new outfalls;
  - ✓ Take at least 1 photo of the outfall for documentation purposes, especially if there is question regarding an illicit discharge; and
  - ✓ Rainfall data can be gathered from the link below by searching for the location of each campus and clicking on the history tab to view past precipitation amounts.

- ***Section 2: Outfall Description*** – Requires a description of the outfall and determination if flow is present during dry weather. Tips for completing Section 2 include:
  - ✓ If the cross-section of a pipe or channel is abnormal, provide a sketch in the available area of the dimension column and label measured dimensions.
  - ✓ If submerged with sediment, measure the depth of sediment.
  - ✓ The identification of flow is important since flow during dry weather would indicate a non-stormwater discharge. If a pipe is partially submerged, and it is difficult to identify dry-weather flow, a nearby leaf or blade of grass can be dropped onto the water surface near the outfall. The travel of the object on the surface can help indicate if flow is discharging from the outfall.
  - ✓ Upon completion of this section, if no flow is present, skip to Section 5 of the form.

- ***Section 3: Quantitative Characterization for Flowing Outfalls*** – Requires quantitative information of the flow present at the outfall, including information to determine an estimate of the flow rate. The pH and ammonia levels require the use of test strips. The purpose of this information is to help identify the source of the discharge. Tips for completing Section 3 include:
  - ✓ Measuring pH can determine whether a flow is industrial or commercial in nature. Normal stormwater has a pH around 4.5 to 7.
  - ✓ High levels of ammonia (> 0.3 ppm) can indicate excess fertilizer or contamination by sanitary wastewater.
  - ✓ Flow rate can be estimated with the following equations. Measured data from the form is shown in bold below.

    Flow #1 (for pipes):

    $$\frac{\boldsymbol{'X'\,liters}}{\boldsymbol{'X'\,seconds}} \times \frac{1\ gallon}{3.78\ liters} \times \frac{60\ seconds}{minute} = Flow\ in\ gpm$$

  - ✓ For the Flow #1 calculation, time in seconds is the time to fill the bottle to 'X' liters.

    Flow #2 (for open channels):

    $$\left[\left(\frac{\boldsymbol{bot.width\ (ft)} + \boldsymbol{top\ width\ (ft)}}{2}\right) \times \boldsymbol{depth\ (ft)}\right] \times \frac{\boldsymbol{Length\ (ft)}}{\boldsymbol{travel\ time\ (seconds)}} \rightarrow$$
    $$\times \frac{7.48\ gallons}{1\ cubic\ ft} \times \frac{60\ seconds}{minute} = Flow\ in\ gpm$$

  - ✓ For the Flow #2 calculation, travel time is estimated by the time it takes a floating object to travel the defined length.

- ***Section 4: Physical Indicators for Flowing Outfalls Only*** – Requires the observance of physical indicators in the flow, such as odor and color, to assist with identifying the source of the discharge. A tip for completing Section 4 includes:
  - ✓ Take photos of visible indicators.

- ***Section 5: General Physical Indicators for All Outfalls*** – Requires physical indicators be noted that are not related to flow, such as abnormal vegetation and staining, which can indicate that an intermittent discharge has occurred in the past, even if not currently flowing. Tips for completing Section 5 include:
  - ✓ Take photos of visible indicators.

- ✓ Note benthic growth, such as algae or slime on channel surfaces, which can be an indicator of nutrients in the stormwater runoff (See Figure 3).

Figure 3. Example Photo showing algae growth.

- ***Section 6: Outfall Severity Index*** – Requires the assignment of a severity score for prioritizing outfall follow-up investigation, if necessary. A tip for completing Section 6 includes:
  - ✓ The severity of concern at an outfall is best judged by the outfall inspector. The rating system provided on the form is intended to provide consistency and guidance; but the intuition of the inspector overrides the scoring rules.

- ***Section 7: Any Non-illicit Discharge Concerns*** – The inspector performing the outfall screening should identify any other concerns such as trash, overgrowth prohibiting flow, or structural concerns of the outfall (e.g., collapsed pipe).

4.2 Wet-Weather Screening

While dry-weather screening events can identify illicit discharges that are continuous, wet-weather screening events may identify pollutant discharges that are temporary. Wet-weather screening may be appropriate if dry-weather screening identifies physical indicators from Sections 4 and 5 of the Outfall Inspection Form.

5.0 INVESTIGATING ILLICIT DISCHARGES

In the case of the identification of an illicit discharge, it is necessary to conduct an investigation to identify and eliminate the source of the discharge. An investigation may result from:

- A staff observation;
- A report to CWA Facilities staff from the general public;
- A report from an interconnected MS4; or
- The results of outfall screening.

The determination if an illicit discharge has occurred will be made by the CWA PWD. In all cases of an illicit discharge, the IDDE Tracking Form must be completed as documentation for General Permit annual reporting.

The following sections outline the methodologies that shall be followed in the investigation of an illicit discharge.

5.1 Investigation Triggers and Prioritization

Upon the identification of an illicit discharge, the reporting date, location, and description must be reported in the IDDE Tracking Form. Note that Section 6 of the Inspection Form should be referenced to estimate a severity Index classification. The following shall trigger an investigation:

- The determination of the occurrence of an illicit discharge by the PWD based on an observed illicit discharge by CWA Facilities staff, such as during daily activities, or a follow-up from a reported observation.
- A severity index classification of either potential, suspect, or obvious. If more than one outfall screening produces one of these classifications, investigation efforts shall be prioritized as:
    - Obvious – Illicit discharge(s) suspected of being sanitary sewer discharges or significantly contaminated would have this classification.
    - Suspect – Numerous physical indicators result in this classification.
    - Potential – Discharges should not be expected to be hazardous to human health and safety.

The start and close date of the investigation is also required to be provided on the IDDE Tracking Form.

5.2 Investigation Protocol

An investigation of an illicit discharge may result in the source being easily identified or may be complex and may require referencing this manual, the IDDE Field Guide, IDDE map, and coordination with interconnected MS4s.

Based on the familiarity of the CWA and its drainage areas, an initial field evaluation may easily identify the source of an illicit discharge. Once found, the source should be eliminated, and efforts documented on the

IDDE Tracking Form. It is critical that documentation on the IDDE tracking Form is complete to demonstrate illicit discharges have been addressed in accordance with the General Permit.

If the source of an illicit discharge is not easily identified, further investigation is necessary and should be guided by the following procedures:

1) Track the illicit discharge to its point of entry into the storm sewer. Tracking can be supplemented with review of the CWA IDDE/Post-Construction Stormwater Management Facility map to identify flow directions and the drainage area. Cross reference the map with the CWA Stormwater Pollution Prevention Plan (SWPPP) map that indicates areas most likely to be the source of pollutants.
2) Conduct a field inspection of the drainage area near the point of entry to identify the potential pollutant source. Document potential sources with photos, ensuring the photos give the appropriate context to the location of the source.

CWA Facility staff will primarily rely upon visual inspections of the areas in the storm sewer system upstream of the outfall at which an illicit discharge is detected. However, sampling and analysis can be performed as necessary to determine the characteristics of the illicit discharge and to help identify the most likely source. Improper connections and unpermitted cross-connections to the storm sewer system can be detected by utilizing a combination of methods to investigate non-stormwater discharges, such as visual/video inspections, and dye or smoke tracer testing. Additional dry-weather testing at a discharge point assists in identification of abnormal conditions such as sporadic or continuous discharge, which can facilitate tracing of the source. Tracking techniques also include visual inspections of drainage structures and lines, damming lines to isolate areas, indicator monitoring, and optical brightener monitoring traps.

Other more elaborate approaches include using remote sensing tools to identify soil moisture, water temperature, and vegetation anomalies associated with illegal dumping activities. Due to the size of the CWA and the activities that typically occur, it is not anticipated these types of tracking strategies will be necessary and further discussion is outside of the scope of this Manual.

If an illicit discharge is determined to originate outside of the CWA property, then the appropriate locality and/or MS4 Program authority should be contacted immediately by CWA staff and the request made to eliminate the discharge. The interconnected MS4 should initiate corrective action per their prescribed process. CWA staff will follow up with the responsible entity to verify the corrective action has been successfully implemented, and the final action will be documented and tracked on the IDDE Tracking Form.

Additional detail for conducting an investigation is provided in the *CWA IDDE Field Guide*.

5.3 Timeframes for Performing Investigations

In general, the timeframe for initiation of an investigation should be prioritized with first priority given to illicit discharges suspected of being sanitary sewage or otherwise significantly contaminated. More specifically, timeframes for initiating an investigation are established as follows:

- Obvious – First priority, begin investigation within two business days of identification of an illicit discharge.
- Suspect – Second priority, begin investigation within one week of the report of a suspected illicit discharge.
- Potential - Third priority, begin investigation within two weeks of the report of a potential illicit discharge.

If, after performing an investigation of an observed or reported illicit discharge, the source of the discharge has not been identified and the non-stormwater discharge has not been detected again after 6 months, efforts will be documented and the discharged identified as “non-recurring” with “source not found” on the IDDE Tracking Form. At that time, no further action is necessary. However, investigatory due diligence should include (with documentation):

- The tracking and field inspection methods described in the previous Section were performed;
- At least one additional dry-weather screening during the 6-month time period; and
- At least one wet-weather screening.

If an observed discharge is intermittent, CWA Facilities staff will perform three separate investigations attempting to observe the discharge when it is flowing. If these attempts are unsuccessful, CWA Facilities staff will also document the occurrence and process and no further action is necessary.

6.0 ELIMINATING VERIFIED ILLICIT DISCHARGES

The ultimate goal of the IDDE Program is to eliminate illicit discharges from the MS4. Once an illicit discharge has been identified and an investigation has determined the source of the discharge, the appropriate actions need to be taken and documented to eliminate the discharge.

6.1 Source Elimination

CWA prohibits illicit discharge into its MS4 through contract language with contractors performing work for the CWA. Further, CWA's daily operations intend to prevent illicit discharges through the practices described in the CWA Good Housekeeping & Pollution Prevention Manual. Through these mechanisms (See Figure 4), CWA can eliminate illicit discharges in which the source occurs on city property.

Source/Discharge Type	Elimination Authority
Staff during daily operations	Good Housekeeping and pollution prevention training
Contractors Operations	Contract Language

Figure 4. CWA authority for prohibition of illicit discharges.

When an illicit discharge originates within CWA's property, CWA Facilities staff will take the necessary corrective action to eliminate the discharge. Follow-up inspections may be necessary to ensure the discharge into the CWA storm drain system has ceased. Periodic inspections should be conducted during both wet and dry weather after the initial illicit discharge to confirm the identified discharge has been eliminated. Actions and resolutions must be documented and maintained on file for 3 years.

When the source of an illicit discharge originates outside of city limits, and therefore, CWA does not have authority to eliminate the source, ODEQ or interconnected MS4 should be contacted by the PWD, as applicable. Figure 5 provides examples of the enforcement authorities to contact based on the type of illicit discharge. This list is not all-inclusive but is based on typical sources of illicit discharges. IDDE Tracking Forms should be maintained on file along with information related to the case, including dates, locations, photos, results of screenings and investigations, and identified sources.

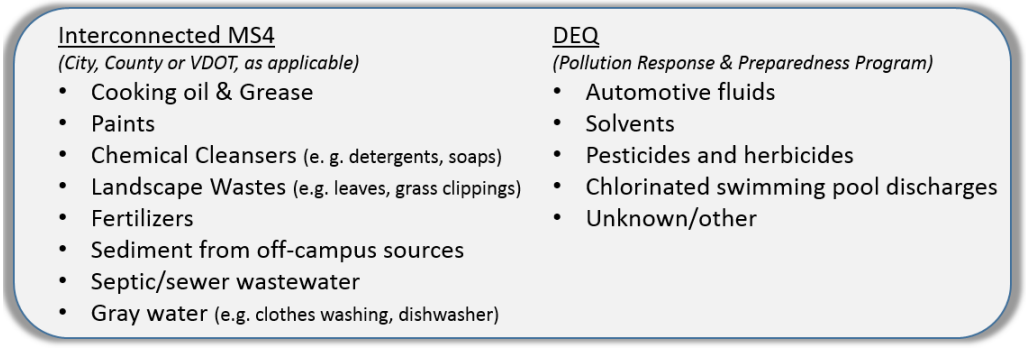

Figure 5. Illicit discharge enforcement contacts for off-site illicit discharges entering CWA property.

6.2 Follow-up on Source Elimination

Prior to closure of an illicit discharge investigation, CWA is required to conduct or request a follow-up investigation to ensure the illicit discharge has been eliminated. When the source originated on city property, the follow-up investigation may simply include a field inspection with documentation including photographs where the source had previously been identified. In the case of an illicit discharge entering the city from outside of city limits, follow-up should include a request for information from the appropriate upstream enforcement entity. Documentation of CWA efforts is also required on the IDDE Tracking Form.

6.3 Administrative Action, Enforcement, and Penalties

CWA prohibits illicit discharge into its MS4 through contract language with contractors performing work within the CWA. If an individual or entity is identified during an illicit discharge investigation to be responsible for intentionally contributing to the discharge, the following binding documents will be utilized to conduct any necessary administrative action, enforcement, or penalties:

- Contract Language – CWA can pursue administrative actions within its authority, such as revocation with a Stop Work Order for construction sites or suspension or revocation of a contract.

Administrative action is the least desirable outcome of the CWA IDDE Program; however, it may be necessary in the following situations:

- Recurring or egregious illicit discharge incidents;
- Failure of a person knowingly responsible for an illicit discharge to notify CWA or ODEQ; or
- Refusal by the responsible party to voluntarily take corrective action on an illicit discharge, once it is brought to their attention.

Because CWA has limited legal authority, any legal action would likely be initiated by a state or federal environmental agency in conjunction with the appropriate law enforcement agency. In some cases, as determined necessary by the CWA City Attorney, the CWA may pursue common law trespass as a legal means to stop an illicit discharge.

One or more of the following enforcement actions will be performed for confirmed illicit discharges:

- Upon CWA verification that the reported incident is a valid illicit discharge, the responsible party will be notified immediately (by letter) of the requirement to correct the illicit discharge and, when appropriate, remediate the area affected by that discharge.
- The appropriate State Authority and/or ODEQ will be notified in writing of the illicit discharge in certain cases where the discharge is occurring within a live watercourse.
- CWA may revoke or suspend a contract issued to an outside party should an illicit discharge be detected and not corrected by the responsible party.

6.4 Reportable Spills

If any unusual or extraordinary discharge should occur from a facility and the discharge enters or could be expected to enter surface waters, CWA shall promptly notify, in no case later than within 24 hours, DEQ by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any known adverse effects on aquatic life. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

- Unusual spillage of materials resulting directly or indirectly from processing operations;
- Breakdown of processing or accessory equipment;
- Spills of large quantities of chemicals or fuels; and
- Flooding or other acts of nature.

NOTE: The immediate (within 24 hours) reports required to be provided to ODEQ may be made to the ODEQ. by telephone 1-800-256-2365. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the ODEQ maintains a 24/7 telephone service at 1-800-522-0206.

APPENDIX A: Outfall Inspection Form

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OUTFALL INSPECTION FORM

Section 1: Background Data

Location:		Outfall ID:
Today's date:		Time:
Investigators:		Form completed by:
Temperature (°F):	Date of Last Rainfall Event:	Quantity of Last Rainfall Event (inches):
Camera:		Photo #s:
Notes (e.g., origin of outfall, if known):		

Section 2: Outfall Description

LOCATION	MATERIAL	CROSS-SECTION (SHAPE)		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ Concrete ☐ Corrugated Metal ☐ Plastic ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open channel**	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
Flow Present?	☐ Yes ☐ No ***If No, Skip to Section 5***				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization for Flowing Outfalls

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stopwatch
☐Flow #2	Flow depth		In	Tape measure
	Flow width	_____' (Top) _____" (Bottom)	Ft	Tape measure
	Measured length	_____' _____"	Ft	Tape measure
	Time of travel		S	Stopwatch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

OUTFALL INSPECTION FORM

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (*If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: General Physical Indicators for both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (*If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	.
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Severity Index

An IDDE score will be calculated by summing the Severity Indexes in section 4 and adding the number of indicators checked as present in section 5

☐ **Unlikely** (No indicator checked as present in Section 4 OR only **one (1)** indicator checked as present in Section 5)

☐ **Potential –** (**one (1)** indicator with a severity of **one (1)** in Section 4 OR **two (2)** indicators checked as present in Section 5)

☐ **Suspect - IDDE score of three (3)** (**one (1) or more** indicators checked in Section 4 with a total of severities **equal to three (3)** OR **more than two (2)** indicators checked as present in Section 5 OR a total of severities in Section 4 plus indicators checked as present in Section 5 is **equal to three (3)**)

☐ **Obvious – IDDE score of greater than three (3)** (one or more indicators checked in Section 4 with and the total of the severities **is greater than three (3)** OR a total of severities in Section 4 plus indicators checked as present in Section 5 **is greater than three (3)**).

IDDE Notes:

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

APPENDIX B: IDDE Tracking Form

`

IDDE TRACKING Form

Date Illicit Discharge Observed/Reported:_____ **Outfall # (if applicable):**_____

Description of IDDE: _____

_____

Date of Investigation: _____

Was the Source found? ☐ **Yes** ☐ **No**

If "Yes", please describe: _____

_____

Was IDDE Resolved? ☐ **Yes** ☐ **No**

If "Yes", please explain how it was resolved (Please include any personnel or outside parties contacted or involved):

_____

_____

_____

If "No", please explain why it was not resolved: _____

_____

_____

Is any follow-up action required? ☐ **Yes** ☐ **No**

If "Yes", please explain: _____

_____

Date investigation closed: _____

Attach photos to this form and retain for records.

APPENDIX C: Reportable Discharge Form

`

Reportable Discharge Form

Form use: This form is used to determine if a discharge, spill or release is reportable to the ODEQ under the MS4 General Permit reporting requirements Section II(B)6(b)(4)(h) and Section III G, H, & I.

Section 1 - Discharge Classification

Note: If any item checked below, proceed to Section 2. If not, the discharge does not require a report to DEQ.

- ☐ Is the discharge "*unusual*" or "*extraordinary*", including a "*bypass*" or "*upset*"?
  - **"***Unusual***"** or **"***extraordinary***"** discharges include but are not limited to any discharge resulting from: Unusual spillage of materials resulting directly or indirectly from processing operations, breakdown of processing or accessory equipment, failure or taking out of service some or all of the facilities or flooding or other acts of nature.
  - "*Bypass*" means the intentional diversion of waste streams from any portion of a treatment facility.
  - "*Upset*" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based state permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- ☐ Is it possible the discharge may adversely affect surface waters or may endanger public health?
- ☐ Is the discharge sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302?

Section 2 – Potential to Enter Surface Waters

Note: If any item checked below, proceed to Section 3. If not, the discharge does not require a report to DEQ.

- ☐ Did the discharge enter or is reasonably expected to enter surface waters?

Section 3 – DEQ Notification

Note: Only complete this section if yes was answered for item(s) in Section 1 and Section 2 above.

Notify ODEQ Water Quality Division Self-Reporting line at (800) 256-2365 within 24 hours after the discharge discovery and provide the information listed below, as applicable. Space has been provided for documentation of information verbally reported to ODEQ:

1. Any adverse effects on aquatic life: _____
   _____
2. The known number of fish killed: _____
3. Any unanticipated bypass: _____
   _____
4. Any upset which causes a discharge to surface waters: _____
   _____

For reports outside of normal working hours, leave a detailed message and this shall fulfill the immediate reporting requirement. For emergencies, the Oklahoma Department of Environmental Quality maintains a 24-hour telephone service at 1-800-522-0206.

Section 4 – Follow-up Written Report

Note: Only complete this section if items were checked for both Sections 1 and 2 above, and Section 3 has been completed. Note: The board or its designee may waive the written report on a case-by-case basis for reports of noncompliance under Section III I if the verbal report has been received within 24 hours and no adverse impact on surface waters has been reported.

A written report shall be submitted to the O DEQ Water Quality Divison within five days after the discharge discovery and shall contain the information listed below, as applicable. This completed form may serve as the written report submitted to DEQ.

1. A description of the nature and location of the discharge: _____
2. The cause of the discharge: _____
3. The date on which the discharge occurred: _____
4. The length of time that the discharge continued: _____
5. The volume of the discharge: _____
6. If the discharge is continuing, how long it is expected to continue: _____
7. If the discharge is continuing, what the expected total volume of the discharge will be: _____
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this state permit: _____

Please mail completed forms to:

ODEQ
Water Quality Division
PO Box 1677
Oklahoma City, OK
73101-1677

(800) 256-2365

Maintain a copy with your records.

APPENDIX D: IDDE Response Procedures

In the Event of an Illicit Discharge

1. Contact Facilities. If the discharge is large and hazardous call The Fire Department at 9-1-1. Report an illicit discharge immediately to the PWD at (405) 470-7713 The PWD shall report the illicit discharge to ODEQ within 24 hours.

2. Assess the risk. When a discharge occurs, determine the risks that may affect human health, the environment and the property. This may be done easily in cases where the type of contaminant discharged is known. In situations where the contaminant is unknown, determining risks may involve some investigation. In cases where the chemical is unknown, the spilled material may be identifiable from the container label or the Safety Data Sheet.

3. Select personal protective equipment (PPE). It is crucial that the appropriate PPE is chosen to stop, confine, and cleanup the contaminant. Appropriate PPE may be a pair of gloves, eye and foot protection, or face masks. If the chemical is unknown and the risk level uncertain, use the highest level of caution and protection. Refer unknown chemical cleanup to the Fire Department and do not attempt to cleanup without appropriate guidance.

4. Stop the source. Stopping the source of a discharge may be apparent or may require investigation. In any case, the source should be controlled as quickly as possible.

5. Confine the spill. It is crucial to confine the discharge. In some cases, this step may need to occur before stopping the source. The proper containment measures necessary should be assessed based on the size and type of the discharge. If a large spill of fuel, sewage, or other hazardous materials occurs, contact the Fire Department to assist in response and cleanup. If the discharge occurs at the CWA Public Works yard from the fuel dispensers or during fuel delivery, consult the CWA Spill Prevention Control and Countermeasures Plan.

6. Evaluate the incident and implement cleanup. Once the discharge is stopped and confined, the person responsible for cleanup should develop a plan of action to cleanup the discharge. Once the discharge is cleaned up, the waste material should be disposed of properly. See the Waste Management and Disposal Procedures section of Good Housekeeping & Pollution Prevention Manual for disposal guidance.

Appendix H

GOOD HOUSEKEEPING/ POLLUTION PREVENTION

A Programmatic Overview of the City of Warr Acres Good Housekeeping/Pollution Prevention Practices

For concerns related to Good Housekeeping/Pollution Prevention or for reporting pollution into stormwater runoff contact City of Warr Acres Public Works Department at 405-470-7713

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APPENDICES

APPENDIX A: Contractor Oversight Form
APPENDIX B: Knowledge Check Quiz
APPENDIX C: Annual Training Documentation Form

ACRONYMS

BMP	Best Management Practice
CCA	Chromated Copper Arsenate
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
FLB	Fluorescent Light Ballasts
HID	High Intensity Discharge
City	City of Warr Acres
MCM	Minimum Control Measure
MS4	Municipal Separate Stormwater Sewer System
MSDS	Material Safety Data Sheets
MVAC	Motor Vehicle Air-Conditioning
NMP	Nutrient Management Plan
NPDES	National Pollutant Discharge Elimination System
PCB	Polychlorinated Biphenyls
PCP	Pentachlorophenol
RCRA	Resource Conservation and Recovery Act
SWM	Stormwater Management
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leachate Procedure

1.0 INTRODUCTION AND PURPOSE

City staff engage in a variety of activities that have the potential to influence water quality. This manual presents the standard protocol that the City of Warr Acres (City) will utilize to implement its Good Housekeeping/Pollution Prevention Program. The manual provides a set of written procedures and Best Management Practices (BMPs), which are meant to ensure that City operations are managed in ways that will minimize pollutants from entering the City's small municipal separate storm sewer system (MS4). The written procedures are developed, implemented, and updated by the City as a condition of Warr Acres MS4 General Permit (MS4 Permit), the permitting mechanism designed to prevent pollutants from entering water bodies through stormwater runoff. The MS4 Permit authorizes stormwater discharges from MS4s to surface waters in urbanized areas of the State of Oklahoma.

The MS4 program is part of the National Pollutant Discharge Elimination System (NPDES), which is authorized through the Clean Water Act. With delegation from the Environmental Protection Agency (EPA), MS4 permits in Oklahoma are issued and administered by the Oklahoma Department of Environmental Quality (ODEQ). To ensure compliance with Good Housekeeping/Pollution Prevention requirements of the MS4 Permit, the City is required to perform the procedures outlined in this manual.

The City's Good Housekeeping/Pollution Prevention Program includes four distinct components:

- **Training** – Section 2.0 provides schedules and materials to train applicable field personnel related to the Program.
- **Site-Specific Stormwater Pollution Prevention Plans** – Section 3.0 provides site-specific plans intended to address water quality concerns at City properties that have high potential to contribute pollutants to surface waters.
- **Documentation and Reporting** – Section 4.0 outlines procedures to document all efforts related to the Good Housekeeping/Pollution Prevention process.
- **General Maintenance & Operational Procedures** – Section 5.0 outlines procedures for daily maintenance and operational activities observed in the City.
- **Waste Management & Disposal Procedures** – Section 6.0 outlines procedures for waste management and disposal of pollutants are outlined in of this manual.

1.1 Points of Contact

Name	Title	Phone
City of Warr Acres		
Public Works Director	Stormwater Program Manager	(405) 470-7713
PW Supervisor	Over Public Works	(405) 470-7713
Neighboring MS4 Operators		
	City of Oklahoma City	(405) 297-3334
	City of Bethany	(405) 789-6285
State Agencies		
	Oklahoma Department of Environmental Quality	(405) 702-6100
Emergency Notification		911

2.0 GOOD HOUSEKEEPING/POLLUTION PREVENTION TRAINING PROGRAM

Warr Acres MS4 Program Plan requires the City to conduct annual training to applicable personnel who perform day-to-day activities that have potential to impact surface water quality. Applicable personnel include:

- Field personnel in the recognition and reporting of illicit discharges;
- Personnel employed during road, street, and parking lot maintenance;
- Personnel employed in and around maintenance and public works facilities;
- Personnel responsible for truck maintenance and storage;

As part of the City's Program, this manual serves as training material for annual training to meet the permit requirement for inclusion of Good Housekeeping/Pollution Prevention written procedures into the training.

These procedures serve as the foundation of a successful Good Housekeeping/Pollution Prevention Program that helps the City achieve MS4 Permit compliance. However, compliance is dependent on effective implementation and documentation of these procedures. The goal of effective implementation **is to eliminate non-stormwater discharges** to the City's storm sewer system and downstream receiving waters. These written procedures are to serve as guidance to all City-owned properties and operations.

Figure 2. This manual aims to prevent pollutants from entering stormwater conveyances and receiving waters.

As referenced throughout this manual, the Good Housekeeping/Pollution Prevention Program relies on supplemental materials to assist with implementation and documentation. In addition to the General Maintenance and Operational Procedures in Section 5 and the Waste Management and Disposal Procedures in Section 6, applicable field personnel should be familiar with the supplemental materials provided in the Appendices of this Manual, which include:

- **Contractor Oversight Form** – Used for oversight of contractors performing work on City property and completed when the work has the potential to contaminate stormwater. The form is provided in Appendix A.
- **Good Housekeeping/Pollution Prevention Training**– Appendix B and C are intended for use by the Stormwater Program Manager, or designee, for training documentation purposes. For applicable field personnel the following is required to be completed every 12 months:
  - Attendance of the training session. The session will be scheduled by the Stormwater Program Manager, or designee, with proper notice provided to each applicable field personnel.
  - Completion of the 'Knowledge Check' quiz in Appendix B at the conclusion of the training session. The quiz will be submitted to the trainer at the end of the training session for documentation of completion and as a measure of assessing the effectiveness of the training.

3.0 STORMWATER POLLUTION PREVENTION PLANS

Under the MS4 Permit, the City is required to develop and implement a SWPPP for City-owned locations identified as having a high potential for exposing pollutants to the MS4. However, activities performed by City personnel or contractors throughout the City could also potentially introduce pollutants to surface waters or wetlands. Once these areas and activities are identified, staff can be more aware of potential sources of pollutants and implement practices to minimize prevent them from entering the storm sewer system.

3.1 Defining an Illicit Discharge

The conveyance systems of an MS4, including curb & gutter, inlets, pipes, and channels, can carry pollutants in stormwater runoff to receiving waters. Substances other than stormwater that enter receiving waters are considered an illicit discharge. An illicit discharge can be:

1. a measurable flow from a storm drain during dry weather that contains pollutants or pathogens;
2. a unique frequency, composition, and mode of entry in the storm drain system;
3. caused when the sewage disposal system interacts with the storm drain system; or
4. discharge of pollutants from specific source areas and operations known as "generating sites."

For the purposes of the City's Good Housekeeping/Pollution Prevention Program, the VSMP regulation definition for an illicit discharge is generalized as:

> *Illicit Discharge - Any discharge to an MS4 that is not composed entirely of stormwater, except discharges specifically identified in the Virginia Administrative Code and determined not to be a significant contributor of pollutants to the MS4.*

Most sources of an illicit discharge are likely to originate from a generating site or activity, such as a vehicle washing area or maintenance area and be the result of daily practices or a specific spill incident. Table 1 lists the common sources or causes of illicit discharges. Illicit discharges may also originate from citizen activities. In either case, observed illicit discharges should be reported to the City's Stormwater Program Manager or designee.

The EPA regulations include exemptions for some non-stormwater discharges that are not considered an illicit discharge if they are not significant contributors of pollutants to the City's MS4. Table 2 includes discharges that are not significant contributors of pollutants and are not considered illicit discharges. Contact the Stormwater Program Manager or designee if there is uncertainty regarding the constituents or the source of an observed discharge.

Table 1. Examples of source pollutants of an illicit discharge.

• Automotive fluids (oil, fuel, antifreeze)	• Landscape waste (grass clippings, etc.)
• Cooking oil and grease	• Improperly applied fertilizer
• Solvents	• Sediment
• Paints	• Vehicle wash water
• Chemical cleansers (detergents, soaps)	• Sanitary sewer wastewaters
• Improperly applied pesticides/herbicides	• Dumpster leachate
• Improperly managed salts	• Trash

Table 2. Examples of sources that are not considered illicit discharges.

• Fire-fighting activities	• Air conditioning condensate
• Water line flushing	• Footing or foundation drains
• Landscape/lawn irrigation	• Springs
• Diverted stream flows	• Water from crawl space pumps
• Rising groundwater	• Dechlorinated swimming pool wastewater
• Uncontaminated groundwater infiltration	• Discharges from potable water sources
• Uncontaminated pumped groundwater	• Flows from riparian habitats and wetlands

Additional detail for identification of an illicit discharge is provided in the *City's Illicit Discharge Detection and Elimination Program Manual* and in the *IDDE Field Guide.*

3.2 Awareness during Daily Activities and Operations

Potential illicit discharges can be identified and eliminated prior to entering the storm sewer with general good housekeeping and preventive action. Public works personnel are in the best position to identify pollutants, such as those identified in Table 1. Figure 3 provides several examples of the observations and actions that could prevent an illicit discharge. If the observer is not qualified or appropriately trained to take the appropriate action, or if illegal dumping is observed, notify the Stormwater Program Manager or designee.

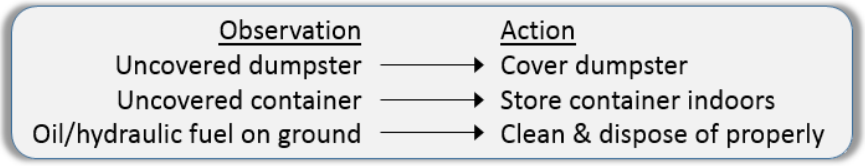

Figure 3. Example daily observations and subsequent actions can prevent an illicit discharge.

4.0 REPORTING PROCEDURES

Maintenance and operations personnel are the first line of defense for preventing sources that could contribute to an illicit discharge. Preemptive actions by City personnel to remove potential sources of an illicit discharge do not need to be reported unless it is suspected an illicit discharge has actually occurred, in which case the Stormwater Program Manager should be notified as soon as possible.

An illicit discharge or potential source for an illicit discharge may also be reported by other individuals who are not trained or authorized to perform necessary actions, such as residents or contractors. These individuals may recognize a potential illicit discharge after learning about pollution in stormwater runoff through the City's public education and outreach efforts, or by other means. The City stormwater webpage directs these individuals to contact the Stormwater Program. Program staff will subsequently perform the appropriate follow-up action and documentation. Figure 4 summarizes this procedure.

VDOT, Fort Lee, and Prince George County have interconnected MS4's with the City, meaning there is stormwater being conveyed to and from the City property to neighboring MS4s. Any report from either interconnected MS4 of a potential illicit discharge originating from the City should be immediately directed to the Stormwater Program Manager or designee for investigation and documentation.

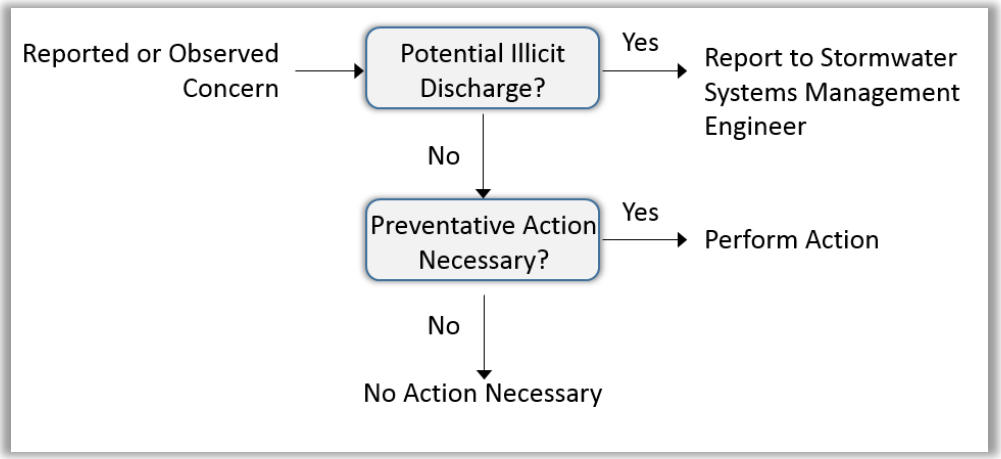

Figure 4. Reporting procedures for the City field staff.

5.0 GENERAL MAINTENANCE & OPERATIONAL PROCEDURES

The following sections review common procedures and operations that take place at specific locations in the City. These operations may be potential sources of pollutants that can enter and contaminate the stormwater system and the receiving downstream waters. An overview of risk factors associated with each operation is provided, in addition to suggested Best Management Practices to help reduce the potential for contamination.

5.1 Vehicle Washing

Overview

Vehicle washing can introduce a number of pollutants into the MS4, including solvents, grease, sediment, and petroleum products as point source pollution (illicit discharge). Washing vehicles near any part of the MS4, including ditches or other conveyances that lead to the storm sewer, may result in these pollutants entering a nearby water body. In order to avoid this, only wash vehicles in designated vehicle washing areas. Vehicle washing areas must drain to a stormwater BMP that is specifically designed to manage the pollutants expected from a car washing facility, or a sanitary sewer.

Best Management Practices

- Wash in designated wash bays that drain directly to the sanitary sewer
- Use commercial car washes for typical fleet vehicles
- Wash vehicles on permeable surfaces, such as grass or gravel (only with water- no soap, detergents, waxing, etc.)

5.2 Vehicle Maintenance

Overview

Vehicle maintenance practices involve a number of solvents, petroleum products, and other toxic compounds that must be stored and handled in accordance with procedures that prevent potential contamination of the MS4 or nearby water bodies.

Best Management Practices

For general maintenance:

- Vehicles should be maintained inside and under cover, with the exception of emergency maintenance not involving fluids.
- Vehicles that are leaking any fluids should be put inside and under cover unless a drip pan can be utilized and emptied into the designated hazardous waste containers.
- Water used for tire leak detection or other similar processes should be disposed of in the sanitary sewer only.
- Remove leaking vehicles from service until they are repaired.
- Store leaking batteries in a leak-proof container.
- Use detergent-based or water-based cleaning systems instead of organic solvents and degreasers.

For vehicle and equipment fueling:

- Always fill tanks and containers in a way that prevents dripping.
- Avoid “topping off” or filling beyond the normal fill capacity.
- Never leave vehicles or equipment unattended while fueling.
- Fuel vehicles and equipment on a hard surface, down gradient and at the farthest practical distance from any storm drain, conveyance, or water body.

For leaks, drips, and spills:

- Clean up any drips or spills thoroughly and promptly.
- Apply absorbent on the spill area and dispose of the waste properly. Never hose down the affected area.
- Prevent fluids from entering the storm sewer by diverting any flows using the materials provided in the spill kit.

5.3 Vehicle Storage

Overview

Vehicles are generally stored in the Public Works yard. Some vehicles are used infrequently due to seasonal operations (snow removal, lawn mowers, etc). Stored vehicles can be potential sources of pollutants into the MS4 and nearby bodies of water, and therefore must be stored appropriately and periodically inspected.

Best Management Practices

- Store vehicles inside or under cover, if possible.
- If vehicles must be stored outside, locate vehicles away from storm drains.
- Vehicles that are leaking any fluids should be put inside, or placed under cover, or located with a drip pan. Drip pans must be inspected periodically and emptied into designated hazardous waste containers.
- Ensure that drive aisles and parking areas are free of sediment and debris. Street sweep or clean as required.
- Regularly inspect vehicle storage areas.
- Cleanup any observed spills and address the source of the leaking pollutant(s).

5.4 Fueling Areas

Overview

City personnel use vehicles and equipment for day-to-day operations and maintenance functions. Fuel for fleet vehicles and equipment presents a particularly hazardous set of toxic compounds that can impair the water quality of receiving water bodies if spilled or leaked. Personnel should be adequately trained to avoid spills, clean them if they do occur, and prevent them from entering the storm sewer or any receiving water bodies. Extra care (and training if necessary) should be taken when fueling vehicles that have a horizontal fuel fill hose. These tend to trigger the fuel pump automatic shut-off before the tank is full, prompting operators to repeatedly re-engage the fuel pump. As a result, the operator will not know the tank is full until fuel spills out the fill hose.

Best Management Practices

- Onsite refueling locations should be designed to prevent runoff and spills by having an impervious surface graded away from storm sewer inlets or inlets directed to an oil/water separator.
- Fuel stations should be covered with an area at least as large as the grade break or fuel dispensing area, and this cover should direct stormwater to a perimeter drain or away from the area.
- Provide nearby and easily visible spill kit, along with signage with instruction for use and disposal of absorbent or other contaminate material used for clean-up.
- Routinely inspect refueling structures and equipment for proper function and condition, as well as any signs of corrosion or potential failure.
- If a constant or intermittent leak from equipment is occurring, notify the Stormwater Program Manager immediately. Prevent fluids from entering the storm sewer by diverting any flows.
- For leaks, drips, and spills:
    - Clean thoroughly and promptly.
    - Apply absorbent that completely covers the spill area; scrub the spill with absorbent and dispose of the waste properly. Never hose down the affected area.
    - Prevent fluids from entering the storm sewer by diverting any flows.

5.5 Dumpsters/Trash Cans-Solid Waste Collection and Recycling

Overview

Dumpsters and trash cans are potential producers of illicit discharges if polluted materials leak and travel to the storm sewer or receiving water bodies. However, as with other waste and chemical storage, proper storage and careful handling will minimize exposure. Unlidded dumpsters and trash cans allow rainwater to mix with the waste inside and produce polluted leachate that could then spill during unloading. Dumpsters and trash cans must also remain in good condition where nothing can leak out of the bottom and possibly contaminate the storm sewer and water bodies.

Best Management Practices

- Provide only covered containers, rather than those with completely open tops, to reduce the amount of rainwater entering the container and the potential for leaking during normal use.
- Place trash containers, recycling containers, and cigarette butt containers in high pedestrian traffic areas, common areas, entrances to buildings, and sidewalk entries from parking lots. Increase the number of containers if overfilling is a problem.
- Install an adequate number and size of temporary trash receptacles for special events.
- Provide adequate containers at building rear and services entrances so trash materials from within the buildings are immediately transferred to covered containers during routine cleaning.
- If collected trash materials are hauled using a vehicle, install an impermeable liner in the cargo area to contain any leakage during transfer. Wash any leakage in designated wash areas that drain directly to the sanitary sewer.
- Provide a secure area for dumpster loading and unloading to prevent tampering, unwanted dumping, and damage from other vehicles.
- Routinely inspect dumpster and trash can lids and other surfaces for deterioration or damage that may cause exposure to stormwater or allow leakage.
- Remove and replace dumpsters and trash cans in poor condition that may allow leakage.
- Provide staff training to ensure only proper materials are loaded into the dumpster to help avoid accidental mixing of chemicals or introduction of corrosive materials.
- If any leaks are detected, install berms or other devices to ensure nothing flows into the storm sewer system or receiving waters.

5.6 Chemical Storage

Overview

The City shop has a number of chemicals onsite that are related to routine automotive maintenance, cleaning, and other activities. Similarly, City contractors may be using chemicals and chemical-dispensing equipment while performing work in the City. All chemicals that could potentially contaminate stormwater and local waterways should be clearly marked and stored in secure locations.

Best Management Practices

- Plainly label containers that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if a spill occurs.
- Store materials away from high traffic areas and on structures that keep them from coming into contact with the floor.
- Storage areas, loading and unloading areas should be covered or enclosed to reduce potential contact with stormwater.
- Storage spaces and containers should be routinely checked for leaks or signs of deterioration.
- Provide contract language that requires contractors to accommodate safe storage of chemicals and hazardous materials and to be responsible for safe handling and cleanup of any potential spills.

5.7 Outdoor Loading

Overview

Outdoor loading areas are potential sources of illicit discharge if polluted materials leak during transport to/from containers and vehicles. Spilled materials can mix with stormwater, so proper storage and handling is necessary to help minimize exposure.

Best Management Practices

- If possible, perform outdoor loading under a tarp or covered structure.
- Load material in dry weather when possible.
- Avoid positioning loading areas near storm drains.
- Grade or berm the loading area so that stormwater drains to a dead-end connection or sanitary sewer, rather than a water body or storm drain.
- Train personnel to routinely inspect the area adjacent to any loading or unloading operations after the work is complete to identify any spills or excess materials.
- Train personnel in spill cleanup so that leaks and spills are addressed in a timely fashion.

5.8 Outdoor Material Storage

Overview

The Public Works Yard stores materials such as grease, paints, detergents, metals, and bulk materials in outdoor covered storage sheds. These materials must be stored and handled in accordance with procedures that prevent potential contamination of stormwater runoff.

Best Management Practices

- Store all materials in appropriately labeled containers, if applicable.
- Avoid placing materials near storm drains.
- Make sure all outdoor storage containers have lids that are kept closed to prevent stormwater contamination.
- If materials are too large to store in containers, cover with a tarp and appropriately label the area to indicate the stored materials that are present.
- Provide perimeter controls for erodible stockpiles of materials such as mulch, sand, and gravel to prevent migration into the stormwater system.
- Routinely inspect outdoor material storage areas for leaking or corrosion of stored substances.
- Cleanup all migrating materials upon discovery and repair the source of the migrating pollutant to prevent potential contamination of stormwater and water bodies.

5.9 Power washing

Overview

Power washing can concentrate organic sediment, precipitates, surface material, and cleaning solutions into wash water, which is characterized as an illicit discharge if it enters the drainage system. Care should be taken to prevent power washing water from flowing into the storm sewer, including roof drains, downspouts, and any other conveyances leading to them.

Best Management Practices

- Identify storm drains and possible conveyances to storm drains prior to cleaning or washing, and take measures, such as installing a berm or diversion to prevent wash water from entering them.
- Use dry cleanup methods, such as sweeping or vacuuming to remove debris prior to washing surfaces.
- Determine where wash water may pool and vacuum up or allow it to evaporate.
- Water not containing chemicals or cleaning agents may be allowed to infiltrate in grass or gravel areas. Wash water containing chemical pollutants must be captured and disposed of in the sanitary sewer. Suspended solids and oils must be removed from the wash water using absorbent booms, absorbent pads, or other devices.
- Apply minimal water and prioritize dirty areas rather than cleaning or pressure washing an entire building surface.

5.10 Pesticide Application

Overview

Grounds and building maintenance personnel occasionally use pesticides and herbicides, and the mixing and loading of solutions into equipment is often in the same area where fueling and maintenance occurs. Consequently, an accidental discharge or spill is likely to occur in these areas. Care should be taken to properly store, handle, and apply these chemicals in much the same manner as other hazardous materials, and only adequately trained staff should be responsible for their use.

Note: Applications of pesticides and herbicides over waters of the state or at water's edge are governed under a separate NPDES permit from ODEQ.

Best Management Practices

For Application:

- Apply herbicides and pesticides only after other, non-chemical approaches fail.
- Determine which products are the most useful and least environmentally harmful for a given situation and use sparingly and as directed by the manufacturer.
- Use chemical products only during weather conditions appropriate for the application and that will not potentially mix with stormwater in a rain event.
- Avoid applying chemicals within 5 feet of pavement, 25 feet of storm drain inlets, or 50 feet from a water body.

Spill Prevention:

- Empty spray equipment of solutions before transporting and storage.
- Wash water from application equipment must be disposed of in the sanitary sewer and any leftover material resealed in a container or disposed of at a hazardous waste collection location.
- Store materials in a secure location and keep containers clearly labeled.

5.11 Street Sweeping

Overview

Streets and parking areas are prone to collect and concentrate significant amounts of materials that contribute to polluted runoff into storm sewer systems and water bodies. Sediment, debris, trash, automotive fluids, road salt, and trace metals can be minimized by such practices as street sweeping. Standard street sweeping equipment can be employed along curbed streets and parking lots, while smaller equipment can be used to access other hardscape areas that may accumulate sediment and debris. In addition to reducing the chance and severity of polluted discharges into downstream waters, the practice also extends the maintenance cycle of stormwater basins by reducing sediment accumulation.

Best Management Practices

- Establish a street sweeping schedule that best addresses the rate of accumulation of materials on pavement and hardscapes, and adjust the schedule after significant events such as snowfall (sand, salt).
- Street sweepers should be emptied at a designated location that allows water to drain to a contained area. Once de-watered, materials should be placed in a containment dumpster and transported to an offsite landfill and material recovery should be limited to the volume and weight appropriate for direct transport to such facilities.
- Sweeping material should not be stored on-site for extended periods of time. The schedule for transport to the landfill should be coordinated with the expected volume of material and the volume of the containment dumpster.

5.12 Storm Drain Maintenance

Overview

Storm drains are often the point of entry into the storm sewer system, and they need to be cleaned and maintained on a regular basis to reduce the amount of pollution, trash, and debris into receiving water bodies. Clogged drains can overflow, thereby increasing the volume of water flowing into downstream structures and streams, as well as the chances for damage and erosion.

Some common pollutants found in storm drains include:

- Trash and debris
- Sediments
- Oil and Grease
- Antifreeze
- Paints
- Cleaners and solvents
- Pesticides
- Fertilizers
- Animal waste
- Detergents

Best Management Practices

- Maintain an accurate storm sewer map and information table depicting all components of the storm sewer system and receiving water bodies.
- Establish a routine inspection schedule for observing structural conditions and for screening potential illicit discharges.
- Utilize a vacuum truck for emptying materials trapped in drainage inlets and junction sumps or otherwise dispose of materials in accordance with state and federal regulations.
- Keep impervious surfaces clean of trash, debris, and sediment.
- Mark drainage inlets to maintain public awareness about illegal dumping.

5.13 Exterior Building Maintenance

Overview

Maintenance of building exteriors may involve a number of different practices, from cleaning to resurfacing. Pressure washing, for example, can concentrate organic sediment, precipitates, surface material, and cleaning solutions into the wash water, which is characterized as an illicit discharge if it enters the MS4. Power washing water, cleaning agents, and other compounds should not enter the storm sewer system or water bodies. Care should be taken to prohibit fluids from flowing into roof drains, downspouts, and any other conveyances leading to them.

Best Management Practices

Cleaning:

- Identify storm drains and possible conveyances to storm drains prior to commencing with cleaning or washing, and take measures to prevent wash water from entering them.
- Use dry cleanup methods to remove debris prior to washing surfaces.
- Determine where waste water may pool and vacuum up or allow it to evaporate.
- Water not containing chemicals or cleaning agents may be allowed to infiltrate in grass or gravel areas. Wash water containing chemical pollutants must be captured and disposed of in the sanitary sewer. Suspended solids and oils must be removed from the wash water using booms, absorbent pads, or other devices.
- Apply minimal water and prioritize dirty areas rather than cleaning or pressure washing an entire area.

Painting:

- When painting, use water-based paints and thinners instead of oil-based whenever possible.
- Mix paint indoors before starting work to minimize the potential for spills entering the MS4.
- When using spray paint, use smaller paint containers with high pressure sprayers to minimize waste.
- Use impermeable drop cloths when painting.
- Immediately cleanup all spills when they occur.
- Recycle or donate excess paint.
- Allow latex paint containers to completely dry before disposal.
- Clean water-based paint from brushes in a sink connected to the sanitary sewer.
- Oil-based paint waste must be reused, recycled, or disposed as hazardous waste.

5.14 Landscape Management

Overview

Typical landscape maintenance practices can produce stormwater contaminants such as pesticides, soil, fertilizers, and debris that can pollute receiving water bodies. Maintaining an attractive landscape can require considerable efforts in pruning, dressing, watering, and fertilizing. Keeping landscaping crews adequately trained in best management practices can reduce the harmful effects of these practices on the stormwater system and water bodies.

Important Note: The City should never apply any de-icing agents containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces.

Best Management Practices

- Compost lawn wastes and re-till into the soil of planting areas or mix into mulch.
- Minimize turf areas by planting groundcovers, wildflowers, and shrubs, thereby reducing mowing and watering requirements.
- Select drought and heat resistant turf species, and do not cut turf shorter than 3 to 4 inches. Mower clippings should be left on the turf as a natural fertilizer, and ensure clippings are swept away from paved surfaces.
- Replace non-native plant species with regionally grown native plants, which are typically more water efficient and disease resistant.
- Utilize low-volume irrigation methods and only water areas as needed to enhance plant root growth and avoid excessive runoff.
- Reduce the use of fertilizers and utilize less-toxic alternatives such as composted organic material. If fertilizer is required, apply slow-release organic versions only on days with little wind and no chance of heavy rain. Apply only during the recommended time of year for the particular turf grass on the site.
- Stockpiles of debris, grass clippings, and other materials leftover from landscape maintenance must be located so as to prevent leachate from draining directly to the drainage system or nearby water bodies.

5.15 Street Parking and Maintenance

Overview

Parked vehicles, trailers, etc., have the potential to introduce contaminates to the MS4 and nearby streams. Careful maintenance of these areas can minimize this potential.

Best Management Practices

- Ensure streets are free of sediment and debris. Street sweep or clean as required.
- Ensure oil drippings and spills are managed appropriately. If leaking vehicles are stored in the street parking, consider moving the vehicle away from storm drains and placing a drip pan beneath the leaking equipment. Captured fluids should be disposed in designated hazardous waste containers.
- In all cases, any vehicles or maintenance equipment, should be stored away from storm drain inlets. If this is unavoidable, install and maintain inlet protection to prevent an illicit discharge.
- Ensure that inlet protection and other containment measures are installed correctly before performing any maintenance operations where pollutants could enter the storm system.

6.0 WASTE MANAGEMENT & DISPOSAL PROCEDURE

Responsible management of chemical and material wastes can greatly reduce the amount of pollution in stormwater runoff. The following sections describe the recommended procedures for managing and disposing of common waste materials. For any of the materials listed below, always refer the Material Safety Data Sheets (MSDS) located outside the Shop Foreman's office. The Good Housekeeping/Pollution Prevention Manual is not meant to supersede or replace any Material Safety Data Sheet or manufacturer's instructions, but rather supplement them to reduce stormwater pollution.

6.1 Animal Carcasses

Proper management of animal carcasses is generally dictated by the location and situation, with priority given to ensuring public safety by immediately removing the carcass from the area. Carcasses should be placed in the storage freezer adjacent to the street sweeper shed for temporary storage until the scheduled pickup for transport to the landfill.

6.2 Antifreeze

Place used antifreeze in the designated drum labeled "Used Antifreeze." The container should remain closed when not in use and must be in good condition, with no other fluids being added. The City contracts for hazardous waste disposal vendor to transfer the container offsite when it is full.

6.3 Batteries

Traditional alkaline batteries (AA, AAA, C, D, 9-volt) are not regulated by the EPA and can legally be thrown away with other non-hazardous waste. However, types of batteries that are classified as Universal Waste and must be collected, stored, and recycled include: Nickel Cadmium, Nickel Metal Hydride, Lithium Ion, Lithium, Mercury, Silver, Lead Acid, Lead Acid Flooded Cell Batteries, Non-Spillable Lead Acid Batteries, Sodium Batteries, and Potassium Hydroxide.

Used batteries are temporarily stored in a designated area of the city garage for pickup by O'Reilly Auto Parts upon delivery of new batteries.

6.4 Empty Containers

All empty containers should be properly stored to reduce degradation until they are disposed of in dumpsters for transport to the landfill.

Empty containers previously storing non-hazardous/non-RCRA materials such as oils and diesel fuel should be disposed of in the applicable dumpster.

6.5 E-Waste (Monitors and Computers)

All computers, monitors, and other electronic waste should be delivered to the City PW Yard for disposal/recycling.

6.6 Filters-Oil, Gas, Diesel

Used filters may either be recycled or disposed of as solid waste under the following conditions:

Used Filters

- **Recycling**: Drain filters into an appropriate container labeled "Used Oil", and place the empty filters into another container labeled "Used Oil/Diesel Fuel Filters" for recycling by Safety-Kleen.
- **Disposal**: Oil filters can be disposed of as solid waste when punctured and drained. Drain into an enclosed container labeled "Used Oil."

Used Gasoline Filters

- **Recycling**: Used gasoline filters with metal casings are exempt from regulation when treated as scrap metal and recycled. Drain into a used gasoline container and place drained filters into a separate container labeled "Used Gasoline Filters." Contact a scrap metal vendor for disposal and maintain records.
- **Disposal as Hazardous Waste**: Used gasoline filters may also be managed according to hazardous waste requirements, at or near their point of generation with storage limits up to 55 gallons. Place drained filters into a container labeled "Used Gasoline Filters". Once the 55-gallon threshold is met, the container must be shipped off-site by a hazardous waste vendor. Maintain records of the disposal.

6.7 Fluorescent Lamps, HID, and Metal Halide Lights

Types of lamps that are considered as Universal Waste under the Resource Conservation and Recovery Act and must be collected, stored, and recycled include: fluorescent bulbs, high intensity discharge, metal halide, neon, mercury vapor, and high pressure sodium lights.

Lamps should be temporarily stored in the appropriately labeled convenience center storage shed in the empty boxes the new ones came in (or purchased from a lamp-recycling vendor). The lights must be securely stored and unbroken. Label the containers as "Waste Lamps" or "Used Lamps" and indicate the

date the first lamp was placed there. Broken bulbs must be contained in leak proof containers. Check with the vendor to see if they will take broken bulbs as well as unbroken.

Dispose of the lamps at the nearest recycling facility and maintain a record.

6.8 Freon

EPA requires service shops to use approved refrigerant recovery equipment for repair of air conditioning systems in motor vehicles. The City outsources any AC Service on equipment to a local shop with the proper equipment.

6.9 Herbicides and Pesticides

Herbicides and pesticides are both considered pesticides under EPA regulation. Containers should be stored in a covered area on impervious flooring, and containers should be segregated according to type. Ensure all containers are labeled and kept closed, and remove only the amount expected to use until the container is empty.

Never pour leftover pesticides down the sink, into the toilet, or into sanitary or stormwater systems. Pesticides may interfere with the operation of wastewater treatment systems or pollute waterways, where they may harm fish, plants, and other living things.

Empty pesticide containers may be managed as a universal waste, disposed of, or returned to the vendor.

<u>Partially Full Containers as Universal Waste</u>

- Herbicide/Pesticides that cannot be completely used and the containers are partially full should be marked as “Waste Pesticide” or “Used Pesticide.”
- Contact Safety-Kleen for disposal as solid waste.

<u>Empty Containers for Disposal or Recycling</u>

- Containers should be rinsed three times with potable water and disposed. Save the rinse water in a separate container for future applications. If the rinse water is not reused it must be properly disposed to sanitary sewer.

<u>Partially Filled Containers Returned to the Vendor</u>

- Some vendors may accept returned pesticides. Keep all containers clearly marked with original labeling and contact vendor for proper handling and shipment.

6.10 Oil, Gas, and Diesel Waste

Waste fuels and oils must be stored in separate tanks and clearly labeled as "Used Oil," "Used Diesel Fuel," or "Used Gasoline" as appropriate. Each container should remain closed unless in use and should remain in a covered, secured area. The City shop maintains a 400 gallon 'used oil' tank. Used oil is removed on site by a licensed used oil recovery company.

Spillage

- Apply absorbent on the spill area and dispose of the waste properly. Never hose down the affected area. Refer to Section 6.13 for guidance on disposal of rags, wipes, and absorbents.
- Prevent fluids from entering the storm sewer by diverting any flows that are on an impervious surface.
- If a spill occurs on a pervious surface such as sand, gravel, or grass, mark the area and contact the PWD for removal and disposal of contaminated areas.

6.11 Paint Waste-Latex, Solvent Based

Paints and liquid surface coverings such as polyurethane should be stored in containers that are clearly labeled. Keep the containers closed and store in secure, covered area off the floor.

Latex Paint

Latex paint is non-hazardous and its containers may be discarded once completely empty and does not contain free liquid. Absorbents can be used to remove any remaining free liquid, or spread the paint on cardboard or newspaper and allow the container to dry completely.

6.12 Parts Cleaners

Low-Flashpoint Solvents

Low-flash solvents contained in parts washers become hazardous waste once the solvent becomes too contaminated to clean effectively. A local environmental waste disposal company is used to recycle, and/or replace parts washers and solvents.

6.13 Rags, Wipes, Absorbents

Disposal methods vary for rags, wipes, and absorbents, depending on the type of substance absorbed: Used Oil Regulation, Hazardous Waste Regulations, or Solid Waste Regulations. The following describe disposal of absorbents used to capture used oil, diesel fuel, and hazardous materials.

Absorbents Used to Capture Used Oil

Waste rags, wipes, and absorbents containing oil (such as motor oil, hydraulic oil, etc.) may be discarded in the trash (or laundered at an industrial facility if they are not dripping and/or completely saturated with oil). Materials that are saturated with used oil should be wrung out or otherwise managed to remove as much free flowing oil as possible. The extracted oil should be contained with other used oil and the absorbent materials can be discarded in the trash.

Absorbents Used to Capture Diesel Fuel

Waste rags, wipes, and absorbents containing diesel fuel may be discarded in the trash (or laundered at an industrial facility if they are not dripping and/or completely saturated with diesel fuel). Materials that are saturated with used oil should be kept in a closed container marked as "Used Absorbents." Contact a used oil vendor when the container is full, and keep records of the final destination.

6.14 Scrap Tires

The primary means of scrap tire disposal is recycling through a scrap tire facility. Tires are temporarily stored inside at the City PW yard. Tires are taken to a local tire shop for proper disposal.

6.15 Solid Waste-Trash

All solid items not recycled or managed as hazardous waste may be considered as solid waste and disposed of using the City's trash collection service. Liquids generally cannot be disposed of in regular trash collection service.

Waste should be collected in bags that are securely closed and transferred to a lidded dumpster in good condition. Loose trash from unsecured collection could blow into stormwater drainage areas or be exposed to stormwater and potentially contribute pollutants into receiving waters.

6.16 Surplus and Excess Property

Materials and property that are no longer in use are stored at the City's PW yard.

APPENDIX A: Contractor Oversight Form

Contractor Oversight Form

Instruction: *Use this form for bi-weekly inspections of work being performed by City contractors that could potentially pollute stormwater. Retain completed forms and any associated documents for annual reporting.*

Contractor: _____

City Inspector: _____

Location: _____ Dates and duration of work: _____

General description of the work: _____

_____

Type of Inspection: ☐ Routine ☐ Follow-up from complaint or Required Action

If this is a follow-up inspection, were any previous inspection items that needed to be addressed?
☐ Yes ☐ No ☐ N/A

If yes or no, please describe: _____

_____

Describe the potential pollutants associated with this work and how they will be contained:

_____

_____

_____

_____

Are there any areas of concern regarding pollution prevention/good housekeeping best management practices?

☐ Yes ☐ No

If yes, describe the concern and how it should be addressed:

_____

_____

_____

Is any follow-up action required? ☐ Yes ☐ No

If yes, please explain (provide a timeframe for completing required follow-up action.

_____

_____

_____

_____

APPENDIX B: GH/PP Knowledge Check Quiz

Pollution Prevention Knowledge Check Quiz

Name: _____
Date: _____

1. IDOE stands for:
    a. Illegal Damage and Discharge Energy
    b. Important Discovery Development and Experiment
    c. Illicit Discharge Detection and Elimination
    d. Illegal Drainage and Dumping to the Environment

2. In reference to an illicit discharge, a generating site is:
    a. Where electrical generators are stored
    b. A specific source area that may produce pollutants
    c. A landscape irrigation area
    d. Where the water supply originates

3. The Stormwater Pollution Prevention Mapping shows all of the following except:
    a. Stormwater pipe locations
    b. Potential pollution generating sites
    c. Stormwater discharge locations
    d. Bus Stops

4. Good Housekeeping/Pollution Prevention inspection records should be kept for ___ year(s):
    a. 1
    b. 10
    c. 3
    d. 5

5. If a potential source of pollution is reported to you by a citizen you should:
    a. Take no action
    b. Contact the Director of Facilities
    c. Call the police department
    d. Clean up the pollution yourself

6. Vehicles can be washed under all the following circumstances except:
    a. In a designated wash bay that drains to the sanitary sewer

b. Near a strorm drain
c. On the grass, but with no soap or detergents
d. Al a local commercial car wash

7. Which of the following landscape maintenance materials are considered potential sources of pollution:
   a. Mulch piles
   b. Concentrated grass clippings
   c. Fertilizers
   d. All of the above

8. True or False: Power washing is never considered to be a source of illicit discharges.

9. Which is these sources <u>is</u> an illicit discharge:
   a. Waterline flushing
   b. Air conditioning condensate
   c. Automotive fluids
   d. Fire-fighting activities

10. Spilled fuel should be cleaned up in the following manner:
    a. Let it dry and hose off the area
    b. Use kitty litter and sweep it into the drain
    c. Spilled fuel is not a source of pollution, an no action is needed
    d. Use a spill kit and contain any used absorbents

APPENDIX C: Annual Training Documentation Form

City of Warr Acres
Good Housekeeping/Pollution Prevention Training

Trainer(s): _____ **Date:** _____

Objective of Training Event: Biennial training for applicable City Employees as listed in Section 2.0 of the City's Good Housekeeping/Pollution Prevention Program Manual (Program Manual). Training provides a brief overview of regulatory requirements, discussion regarding illicit discharges, and familiarizes trainees with the Public Works Facilities Stormwater Pollution Plan (SWPPP), including Standard Operating Procedures provided in the Program Manual.
Training Materials: (1) PowerPoint discussing Good Housekeeping Procedures; (2) SWPPP Map(s); (3) Standard Operating Procedures

No.	Attendee (Print)	Title/Department	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

No.	Attendee (Print)	Title/Department	Signature
15			
16			
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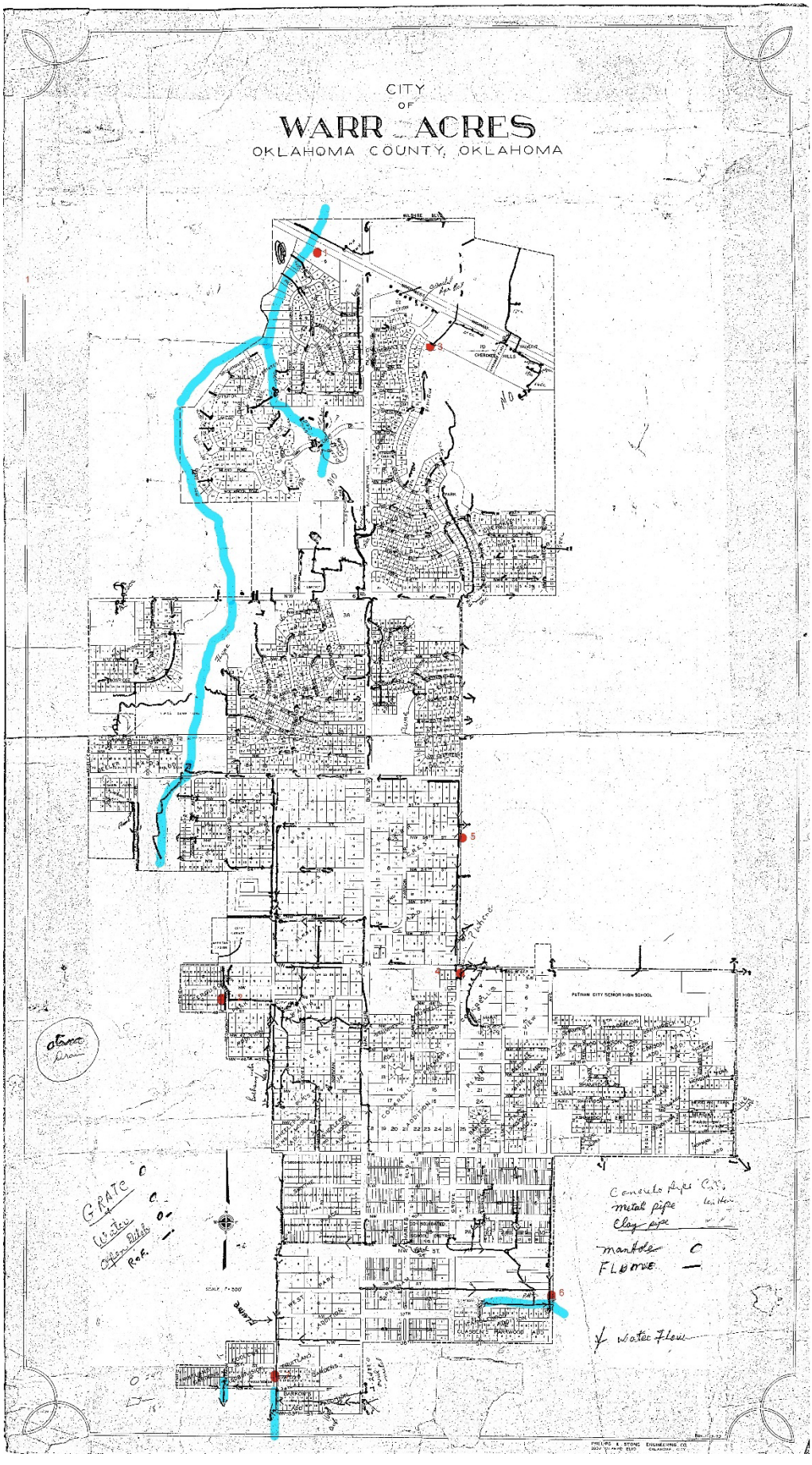
32			
33			

APPENDIX I

DRY WEATHER SCREENING LOCATIONS AND OUTFALL MAP

FYI 2024 Illicit Discharge	Screening Locations	Description	303d
	Waterways		
Outfall 1	Spring Creek of Bluff Creek to Cimmaron River		
	Location 1	Evans Lake Spillway	
	Location 2	NW 49th & Hammond	
	Lake Hefner to Spring Creek		
	Location 3	Cherokee Crossing Detention Pond	
	Location 4	NW 50th & Grove	
	Location 5	NW 56th & Grove	"High Priority"
Outfall 2	Deep Fork Head Waters		
	Location 6	Ann Arbor Lift Station	
Outfall 3	North Canadian River		
	Location 7	NW 34th & Hammond	


CITY
OF
WARR ACRES
OKLAHOMA COUNTY, OKLAHOMA
PUTNAM CITY SENIOR HIGH SCHOOL
GRATE
Concrete pipe C.P.
metal pipe
Clay pipe
manhole
FLOW
Water Flow

APPENDIX J

RESIDENTIAL (R-1, R-2)
APPLICATION for BUILDING PERMIT
CITY of WARR ACRES, OK 73122
(405) 789-2892 fax (405) 787-5432

PERMIT #_____ **AMT PD $**_____ **RECEIPT #**_____

SEWER TAP FEES $_____

BUILDING PERMIT APPLICATION WILL NOT BE APPROVED UNLESS ALL REQUIREMENTS ARE MET

I, _____, hereby make application to the City of Warr Acres for a permit to erect a structure as follows:

Address:_____ Lot____ Block____ Addn_____ Unplatted____

Type of Improvement: ____ New Building ____ Addition ____Alteration ____Moving (relocation)

Proposed Use: ____One Family ___Two Family ____Garage/Accessory Building ___Carport
____Portable Building (See Notes) ____Other (specify)_____

Dimensions: ____Number of Stories ____Total Square Feet of Floor Area
____Total Square Feet Land Area (Lot Size)

Principal Type of Frame: ___Wood Frame ___Masonry (wall bearing) ____Structural Steel
___ Reinforced Concrete ___Other (specify)_____

CONTRACTORS MUST BE LICENSED WITH THE CITY OF WARR ACRES

Plumbing Contractor: _____

Electrical Contractor: _____

Heat & Air Contractor: _____

Other (specify): _____

APPLICANT SHOULD CHECK FOR SUBDIVISION OR PLAT RESTRICTIONS

The Following Supporting Information Must Accompany the Application:

1. Survey, prepared by a licensed surveyor registered in the State of Oklahoma, of the boundaries of the lot on which the improvement is proposed to be located, provided that no survey shall be required for the construction of a portable/ accessory building.

2. Two (2) complete sets of construction plans drawn to scale. Includes: Foundation, Floor Plan, Electrical, Plumbing, Heat & Air, Ceiling and Roof Plans.

3. Plot Plan, drawn to scale, showing the location of the structure on the lot, all easements, setbacks, curb cuts, and driveways. Every dwelling shall have direct access to either a dedicated public street or a private road that has been constructed to the minimum standards established by the City.

4. Drainage Information, including grading plans, to show that storm water will be directed to the street, to an improved drainage structure in a recorded easement, or to natural drainage means at the rear or side of the lot, if requested by the City.

Probable Time of Completion: _____ Estimated Cost: $_____

_____ _____ _____
Property Owner Signature (Required) Date of Signature Date Submitted

Address _____ Phone _____

_____ Address_____ Phone _____
Contractor's Name

_____Approved _____Denied _____ Date _____
City Inspector

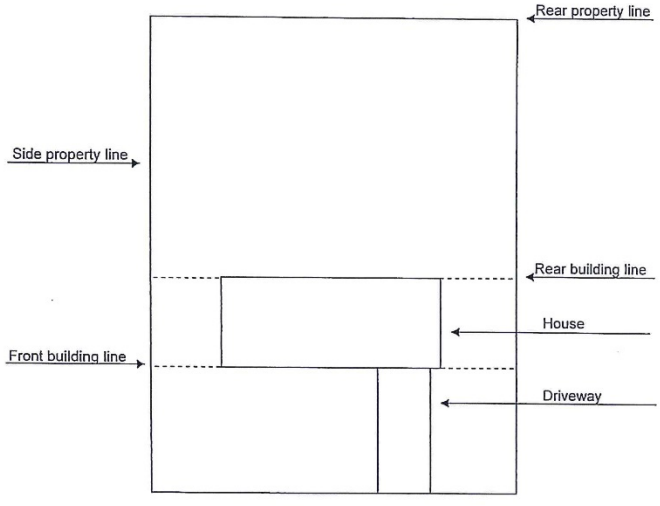
_____Approved _____Denied _____ Date _____
Planning Commission (when required)

Notes: Applicant has 30 days in which to file an appeal before the Board of Adjustment after date of denial. (Title 19.68.040)

Any building permit issued shall become invalid if the authorized work is not commenced within six (6) months from date of issuance, or authorized work is suspended or abandoned for a period in excess of six (6) months. (A new permit will be required) (Title 19.52.050)

Portable Buildings may be placed within a utility easement along the side and rear lot lines, but the property owner shall be responsible for any expense and/or damages incurred by the City in moving the building in order to gain access to the easement. (Title 19.52.020J2)

ACCESSORY STRUCTURE PLOT PLAN



1. Address: _____

2. Show the measurements of the rear yard area from the rear building line (Length and width):

3. Show where the accessory structure will be located and size (length and width):

2. Show the distance from the side(6') and rear(10') property lines:

4. Describe the materials that will be used to construct the structure (wood, steel, concrete floor, asphalt shingle roof):

_____

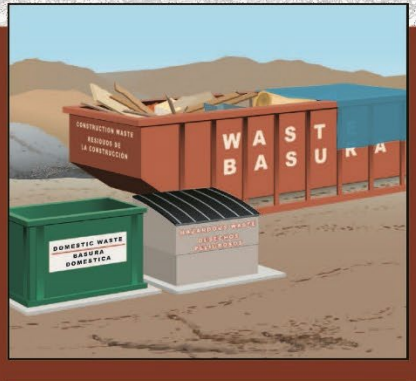
_____

5. Attach sketch of structure including framing members, framing member sizing, intervals and footing.

EPA 830-F-15-001
December 2015

EPA United States Environmental Protection Agency

Stormwater Pollution Prevention for Small Residential Construction Sites



10 Steps to Stormwater Pollution Prevention on Small Residential Construction Sites

Stormwater management on small residential construction sites need not be complicated.

1 Protect Any Areas Reserved for Vegetation or Infiltration and Preserve Existing Trees

If you will be installing infiltration-based features such as rain gardens or bioswales, make sure these areas are designated as off limits to avoid compaction.

Save time and money by preserving existing mature trees during construction. Preserving mature trees minimizes the amount of soil that needs to be stabilized once construction is complete, and minimizes the amount of runoff during and after construction activity.

2 Stockpile Your Soil

EPA's CGP requires operators to preserve native topsoil on site unless infeasible and protect all soil storage piles from run-on and runoff. For smaller stockpiles, covering the entire pile with a tarp may be sufficient.

3 Protect Construction Materials from Run-On and Runoff

At the end of every workday and during precipitation events, provide cover for materials that could leach pollutants.

4 Designate Waste Disposal Areas

Clearly identify separate waste disposal areas on site for hazardous waste, construction waste, and domestic waste by designating with signage, and protect from run-on and runoff.

5 Install Perimeter Controls on Downhill Lot Line

Install perimeter controls such as sediment filter logs or silt fences around the downhill boundaries of your site.

6 Install Inlet Controls

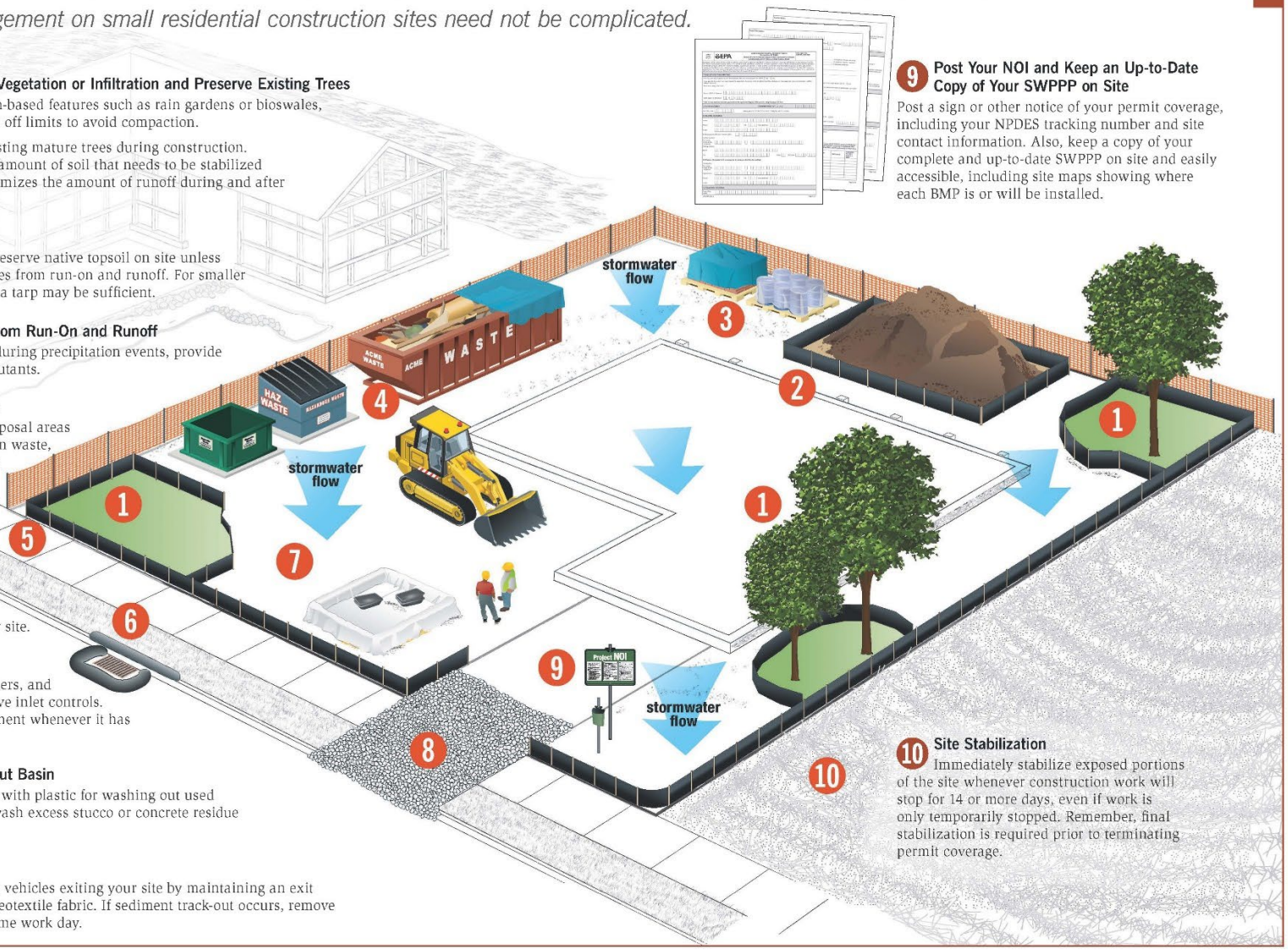
Sediment control logs, gravel barriers, and sand or rock bags are options for effective inlet controls. Make sure to remove accumulated sediment whenever it has reached halfway up the control.

7 Install a Concrete/Stucco Washout Basin

Designate a leak-proof basin lined with plastic for washing out used concrete and stucco containers. Never wash excess stucco or concrete residue down a storm drain or into a stream!

8 Maintain a Stabilized Exit Pad

Minimize sediment track-out from vehicles exiting your site by maintaining an exit pad made of crushed rock spread over geotextile fabric. If sediment track-out occurs, remove deposited sediment by the end of the same work day.



9 Post Your NOI and Keep an Up-to-Date Copy of Your SWPPP on Site

Post a sign or other notice of your permit coverage, including your NPDES tracking number and site contact information. Also, keep a copy of your complete and up-to-date SWPPP on site and easily accessible, including site maps showing where each BMP is or will be installed.

10 Site Stabilization

Immediately stabilize exposed portions of the site whenever construction work will stop for 14 or more days, even if work is only temporarily stopped. Remember, final stabilization is required prior to terminating permit coverage.

City of Warr Acres
Erosion and Sediment Control
SITE INSPECTION FORM

Project: _____ Permit No.: _____

Inspector: _____ Date: _____ Time: _____

Inspection Type: ☐ Routine ☐ Sediment/Turbidity reported leaving site ☐ Other – explain:

_____

Weather: _____

Precipitation: Since last inspection: _____inches In last 24 hours:_____inches

General Description of Site Conditions: _____

_____

_____

Has the Applicant or Inspector changed since the last report? ☐ YES ☐ NO

Will BMPs need to be modified, corrected, maintained, removed, or added to prove adequate for the particular application or operate as designed? ☐ YES ☐ NO

If YES, list the action items to be completed on the following table:

Actions to be Completed	Location(s)	Date to Be Completed By
1.		
2.		
3.		
4.		
5.		
6.		

If BMP changes are needed, has ESCP been updated? ☐ YES ☐ NO

If any portion of the site will have land disturbing activities permanently or temporarily cease for 14 or more consecutive days, state location(s) and initial date of cessation:

_____

City of Warr Acres
Erosion and Sediment Control
SITE INSPECTION FORM

Project: /_____Permit No.: _____

Inspector: _____Date: _____Time: _____

Are there stormwater discharges from the site? Document and describe (whether yes or no).

_____

_____

Was water quality sampling (turbidity and pH) part of this inspection? ☐ YES ☐ NO

- Attach pH and turbidity sampling results if yes.

Is output from site over 10% more turbid than receiving water body? ☐ YES ☐ NO

Immediate turbidity corrective action(s):

_____

_____

I certify that this report is true, accurate, and complete, to the best of my knowledge and belief. Name of

Inspector (Print)_____Title/Qualification _____

Contact Information _____

Signature_____Date _____

Erosion and Sediment Control
SITE INSPECTION FORM

Project: _____ Permit No.: _____

Inspector: _____ Date: _____ Time: _____

Applicable	Site BMPs	Overall Condition	Needs Repair?	Location/Comments/Observations
	Clearing Limits			
☐	Preserve existing vegetation	P F	Y N	
☐	High visibility plastic or metal fence	P F	Y N	
☐	Tree protection during construction	P F	Y N	
☐	Other	P F	Y N	
	Construction Access			
☐	Stabilized/refresh constr. entrance	P F	Y N	
☐	Wheel wash	P F	Y N	
☐	Const. road/parking area stable	P F	Y N	
☐	Other	P F	Y N	
	Sediment Controls			
☐	Silt fence	P F	Y N	
☐	Vegetated strip	P F	Y N	
☐	Straw wattles	P F	Y N	
☐	Other	P F	Y N	
	Stabilize Soils			
☐	Seeding	P F	Y N	
☐	Nets, matting, and blankets	P F	Y N	
☐	Plastic covering	P F	Y N	
☐	Sodding, topsoil, or mulch	P F	Y N	
☐	Straw	P F	Y N	
☐	Other	P F	Y N	
		P F	Y N	
	Protect Slopes			
☐	Seeding	P F	Y N	
☐	Nets, matting, and blankets	P F	Y N	
☐	Plastic stockpile covering	P F	Y N	
☐	Interceptor swale above slope	P F	Y N	
☐	Straw wattles on slopes	P F	Y N	
☐	Overland flow biobags or wattles	P F	Y N	
☐	Other			
	Protect Inlets & Outlets			
☐	Storm drain inlet protection	P F	Y N	
☐	Outlet protection	P F	Y N	
☐	Other			
	Control Pollutants			
☐	Concrete handling	P F	Y N	
☐	Sawcutting and surfacing pollution prevention	P F	Y N	
☐	Material delivery, storage and containment	P F	Y N	
☐	Sweep road/parking/onsite drive	P F	Y N	
☐	Trash	P F	Y N	
☐	Other	P F	Y N	

Checked box = applicable P=Pass, F=Fail, Y=Yes, N=No

SWPPP
SITE INSPECTION FORM

Project: _____ Permit No.: _____

CESCL/Inspector: _____ Date: _____ Time: _____

Applicable	Site BMPs	Overall Condition	Needs Repair?	Location/Comments/Observations
	Discharge & Dewatering			
☐	Level spreader	P F	Y N	
☐	Infiltration	P F	Y N	
☐	Sediment trap or basin	P F	Y N	
☐	Discharge to sanitary sewer	P F	Y N	
☐	Dewatering treatment BMPs	P F	Y N	
☐	Active treatment	P F	Y N	
☐	Other			
	Protect Low Impact Development BMPs			
☐	Buffer zones	P F	Y N	
☐	High visibility fence	P F	Y N	
☐	Silt fence	P F	Y N	
☐	Other	P F	Y N	

Checked box = applicable P=Pass, F=Fail, Y=Yes, N=No

Appendix K

City of Warr Acres
4301 North Ann Arbor Avenue
Warr Acres, OK 73122
405-789-2892

Commercial Development Overview

Zoning Review

Determine Zoning of property to be developed; (see Zoning Map at www.warracres-ok.gov)

It will be one of three categories listed below:

See Municipal Ordinance Title 19 Zoning District at www.warracres-ok.gov

1: Permitted Use (Reviewed by staff) or

2: Use Subject to Review

(Reviewed by Planning Commission and approved or disapproved by the City Council)

3: Not permitted in that zoning district

Environmental Review

If one acre or more or less than one acres but part of a larger development, then application must be made with the Oklahoma Department of Environmental Quality (ODEQ) per the attached DEQ OKR10 Summary instructions.

If less than one acre then application is made through the City of War Acres.

Plan Reviews

Zoning review by staff and/or City Planner
Site Plan review by staff and/or City Engineer
Drainage and Grading plan reviews by City Engineer
Construction Plans review by staff or consultants
IBC review, Fire Plan etc.

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

OKR10 Construction Activities

Do I need to be authorized under the OKR10 permit?

You are required to obtain authorization under the OKR10 construction permit if you:

- disturb an area greater than 1 acre, or
- disturb an area less than 1 acre but are part of a common plan of development that will ultimately disturb greater than 1 acre.

What is the permitting procedure for OKR10?

In order to obtain OKR10 coverage you must:

- complete and submit a Notice of Intent (NOI),
- develop and implement a Stormwater Pollution Prevention Plan (SWP3),
- pay the permit application fee and annual permit fee.

Be sure you have received your authorization notice from DEQ before beginning any construction activities. Once your project is complete and you have met the stabilization requirements, complete and submit a Notice of Termination (NOT).

Where do I submit any forms, reports or fees?

Your NOI, permit fees, and NOT can be submitted to:

Oklahoma Department of Environmental Quality
Environmental Complaints and Local Services Division
707 North Robinson, PO Box 1677
Oklahoma City, OK 73101-1677

How do I conduct site inspections?

To conduct your inspection, you must check that all best management practices (BMPs) are installed correctly and working as intended, check for possible spills or leaks, identify areas where new or modified BMPs may be needed, look for signs of erosion, especially at discharge points and surface water banks, and identify any incidents of noncompliance.

At a minimum, you must inspect:

- all disturbed areas that haven't been stabilized,
- all stormwater controls or BMPs,
- material, waste, borrow, equipment storage and/or maintenance areas,
- areas where stormwater typically flows,
- discharge points,
- areas that have been stabilized.

Your report must be completed within 24 hours of your inspection. It must include the

This publication is issued by the Oklahoma Department of Environmental Quality authorized by Scott A. Thompson, Executive Director. Copies have been prepared at a cost of $0.159 each. Copies have been deposited with the publications clearinghouse of the Oklahoma Department of Libraries.
[Fact Sheet] WQD/OKR10 Construction Activities.indd 2/2/2012

COMMERCIAL (R-3,C-1, C-2, C-3,C-4)

APPLICATION FOR BUILDING PERMIT
CITY OF WARR ACRES, OK 73122
(405) 789-2892 fax (405) 787-5432

PERMIT #_____ **AMT PD $**_____ **RECEIPT #**_____

SEWER TAP FEES $_____

BUILDING PERMIT APPLICATION WILL NOT BE APPROVED UNLESS ALL REQUIREMENTS ARE MET

I, _____, hereby make application to the City of Warr Acres for a permit to erect/remodel a structure as follows:

Address:_____Lot____Block___Addn_____Unplatted:_____

Currently zoned for:_____Proposed Use:_____

Type of Improvement: ____New Building _____ Addition ____ Alteration ____ Moving (relocation)

Dimensions: _____Number of Stories _____Total Square Feet of Floor Area
_____Total Land Area (Lot Size), Square Feet

Principal Type Of Construction (See Back)

Noncombustible: ____Type 1A ____Type 1B _____Type 2A ____Type 2B ____Type 2C

Noncombustible/ Combustible: ____Type 3A ____Type 3B _____Type 4

Combustible: ____Tupe 5A ____Type 5B

CONTRACTORS MUST BE LICENSED WITH THE CITY OF WARR ACRES

Plumbing Contractor:_____

Electrical Contractor:_____

Heat & Air Contractor:_____

Other (specify):_____

Probable Time of Completion:_____ Estimated Cost $_____

_____ Phone_____
Property Owner Signature (required)

Address_____ _____
Date Submitted

_____ Address_____ Phone_____
Contractor's Name

_____Approved _____Denied _____Date_____
City Inspector

_____Approved _____Denied _____Date_____
Planning Commission (when required)

Notes: Applicant has 30 days in which to file an appeal before the Board of Adjustment after date of denial. (Title 19.68.040)

Any building permit issued shall become in valid if the authorized work is not commenced within six (6) months from date of issuance or authorized work is suspended or abandoned for a period in excess of six (6) months. (A new permit will be required) (Title 19.52.050)

Definitions of Types of Construction:

Types 1 and 2:	Are those in which the walls, partitions, structure elements, floors, ceilings, roofs and exits are constructed of approved noncombustible materials.
Type 3:	Are those in which the exterior walls are constructed of concrete, masonry or other approved noncombustible materials and the interior structural elements, load bearing walls, partitions, floors and roofs are constructed of any approved materials.
Type 4:	Are those in which the exterior walls are constructed of approved noncombustible materials and the interior structural members are of solid or laminated wood without concealed spaces or the load bearing walls, partitions, floors and roofs are constructed of any noncombustible materials permitted by the applicable code.
Type 5:	Are those in which the exterior walls, load bearing walls, partitions, floors and roofs are constructed of any approved materials.

NEW CONSTRUCTION

The Following Supporting Information Must Accompany the Application:

1. Survey, prepared by a licensed surveyor registered in the State of Oklahoma, of the boundaries of the lot on which the improvement is proposed to be located.
2. Three (3) complete sets of construction plans, including civil, structural (including a footing plan designed and sealed by an Engineer licensed in the state of Oklahoma), mechanical, electrical and fire protection plans, prepared in conformance with applicable City Codes and Ordinances.
3. Three (3) copies of the plot plan, drawn to scale, showing the following information on one or more sheets:
    a. The exact size, shape and dimensions of the lot proposed to be built on with a notation of the total square feet of lot area.
    b. The exact size and location on the lot of all-existing buildings and structures and the exact size and location on the lot of any building or structure proposed to be repaired, altered or removed.
    c. A declaration of the existing and intended use of each existing or proposed building or structure on the lot and if applicable, the number of families or dwelling units which each existing and proposed building or structure is designed to accommodate.
    d. Adjacent street and alley right-of-ways, showing curb cuts or proposed points of ingress and egress and dimensions of driveways. Every dwelling unit shall have direct access to either a dedicated public street or a private road that has been constructed to the minimum standards established by the City.
    e. A landscaping plan showing conformance with the landscaping requirements of Title 19.
    f. Vehicle parking and loading areas, including the delineation of all parking spaces and total number indicated, dimensions of all aisle widths, specifications for depth and type of paving.
    g. Location of walkways and steps, including all information necessary to show conformance with access requirements for disabled persons.
    h. A drainage plan showing the size and location of existing and proposed storm water structures, flood plain area, if applicable, topographic contours at two foot intervals and proposed grading plans to direct storm water to the street, to a drainage structure in a recorded easement, or to natural drainage means at the rear or side of the lot. The City may require that storm water detention be provided.
    i. Location, dimensions and type of all easements situated on or adjoining the property.
    j. Front, side and rear yard setbacks, illustrated in feet.
    k. Locations of exterior lighting, screening, open space, solid waste collection methods and accommodation.
    l. Location and size of existing or proposed utility services.
    m. Persons performing parking lot and driveway resurfacing and re-striping shall not be required to submit the full list included above, but shall be required to submit satisfactory information to verify the proper handling of drainage, that the number of parking spaces will not be reduced below the minimum requirements, that the resurfacing materials conform to minimum standards established by the City, and that the landscaping requirements of Title 19 have been met or will be met prior to completion of the improvements.

City of Warr Acres
Erosion and Sediment Control
SITE INSPECTION FORM

Project: _____ Permit No.: _____

Inspector: _____ Date: _____ Time: _____

Inspection Type: ☐ Routine ☐ Sediment/Turbidity reported leaving site ☐ Other – explain:

_____

Weather: _____

Precipitation: Since last inspection: _____inches In last 24 hours:_____inches

General Description of Site Conditions: _____

_____

_____

Has the Applicant or Inspector changed since the last report? ☐ YES ☐ NO

Will BMPs need to be modified, corrected, maintained, removed, or added to prove adequate for the particular application or operate as designed? ☐ YES ☐ NO

If YES, list the action items to be completed on the following table:

Actions to be Completed	Location(s)	Date to Be Completed By
1.		
2.		
3.		
4.		
5.		
6.		

If BMP changes are needed, has ESCP been updated? ☐ YES ☐ NO

If any portion of the site will have land disturbing activities permanently or temporarily cease for 14 or more consecutive days, state location(s) and initial date of cessation:

_____

City of Warr Acres
Erosion and Sediment Control
SITE INSPECTION FORM

Project: /_____Permit No.: _____

Inspector: _____Date: _____Time: _____

Are there stormwater discharges from the site? Document and describe (whether yes or no).

_____

_____

Was water quality sampling (turbidity and pH) part of this inspection? ☐ YES ☐ NO

- Attach pH and turbidity sampling results if yes.

Is output from site over 10% more turbid than receiving water body? ☐ YES ☐ NO

Immediate turbidity corrective action(s):

_____

_____

I certify that this report is true, accurate, and complete, to the best of my knowledge and belief. Name of

Inspector (Print)_____Title/Qualification _____

Contact Information _____

Signature_____Date _____

Erosion and Sediment Control
SITE INSPECTION FORM

Project: _____ Permit No.: _____

Inspector: _____ Date: _____ Time: _____

Applicable	Site BMPs	Overall Condition	Needs Repair?	Location/Comments/Observations
	Clearing Limits			
☐	Preserve existing vegetation	P F	Y N	
☐	High visibility plastic or metal fence	P F	Y N	
☐	Tree protection during construction	P F	Y N	
☐	Other	P F	Y N	
	Construction Access			
☐	Stabilized/refresh constr. entrance	P F	Y N	
☐	Wheel wash	P F	Y N	
☐	Const. road/parking area stable	P F	Y N	
☐	Other	P F	Y N	
	Sediment Controls			
☐	Silt fence	P F	Y N	
☐	Vegetated strip	P F	Y N	
☐	Straw wattles	P F	Y N	
☐	Other	P F	Y N	
	Stabilize Soils			
☐	Seeding	P F	Y N	
☐	Nets, matting, and blankets	P F	Y N	
☐	Plastic covering	P F	Y N	
☐	Sodding, topsoil, or mulch	P F	Y N	
☐	Straw	P F	Y N	
☐	Other	P F	Y N	
		P F	Y N	
	Protect Slopes			
☐	Seeding	P F	Y N	
☐	Nets, matting, and blankets	P F	Y N	
☐	Plastic stockpile covering	P F	Y N	
☐	Interceptor swale above slope	P F	Y N	
☐	Straw wattles on slopes	P F	Y N	
☐	Overland flow biobags or wattles	P F	Y N	
☐	Other			
	Protect Inlets & Outlets			
☐	Storm drain inlet protection	P F	Y N	
☐	Outlet protection	P F	Y N	
☐	Other			
	Control Pollutants			
☐	Concrete handling	P F	Y N	
☐	Sawcutting and surfacing pollution prevention	P F	Y N	
☐	Material delivery, storage and containment	P F	Y N	
☐	Sweep road/parking/onsite drive	P F	Y N	
☐	Trash	P F	Y N	
☐	Other	P F	Y N	

Checked box = applicable P=Pass, F=Fail, Y=Yes, N=No

SWPPP
SITE INSPECTION FORM

Project: _____ Permit No.: _____

CESCL/Inspector: _____ Date: _____ Time: _____

Applicable	Site BMPs	Overall Condition	Needs Repair?	Location/Comments/Observations
	Discharge & Dewatering			
☐	Level spreader	P F	Y N	
☐	Infiltration	P F	Y N	
☐	Sediment trap or basin	P F	Y N	
☐	Discharge to sanitary sewer	P F	Y N	
☐	Dewatering treatment BMPs	P F	Y N	
☐	Active treatment	P F	Y N	
☐	Other			
	Protect Low Impact Development BMPs			
☐	Buffer zones	P F	Y N	
☐	High visibility fence	P F	Y N	
☐	Silt fence	P F	Y N	
☐	Other	P F	Y N	

Checked box = applicable P=Pass, F=Fail, Y=Yes, N=No

Appendix L

Streets and Parking Lots

Introduction

Regular sweeping of streets and municipally-owned parking lots is important for maintaining clean and safe roadways. It also plays a vital role in keeping pollutants like sand, trash, and leaves out of the MS4. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees on street and parking lot sweeping procedures and frequencies to reduce the discharge of pollutants to the storm drainage system and receiving waters. If sweeping services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

Procedures

The City of Warr Acres will implement the following street and parking lot sweeping procedures to reduce the discharge of pollutants from the MS4:

Sweeping Frequency

- All streets should be swept and/or cleaned a minimum of once per year in the (with the exception of uncurbed roads with no catch basins or high speed limited access highways).
- Sweep as soon as possible after snow melt and following winter activities such as sanding to capture sand and debris before it is washed into the storm drainage system.
- Consider more frequent sweeping for targeted areas based on pollutant load reduction potential, inspections, pollutant loads, catch basin cleaning or inspection results, land use, impaired waters, or other factors.
- The City of Warr Acres annual report will include the number of miles sweep and the amount collected.

Sweeping Practices

- Street sweeping should be conducted in dry weather. Sweeping should not be conducted during or immediately after rain storms.
- Dry cleaning methods should be used whenever possible, with the exception of very fine water spray for dust control. Avoid wet cleaning or flushing of the pavement.
- When necessary, enact parking bans to facilitate sweeping on busy streets.
- Sweep in a manner that avoids depositing debris into storm drains.
- Sweeping equipment (mechanical, regenerative air, vacuum filter, tandem sweeping) should be selected depending on the level of debris. Brush alignment, sweeper speed, rotation rate, and sweeping pattern should be set to optimal levels to manage debris.

Sweepings Disposal

- Sweepings are classified as solid waste.
- The City of Warr Acres will dispose of debris collected by the street sweeper at local landfill.

Documentation and Reporting
The following information should be documented and included in each annual report:

- Number of miles cleaned and the volume of material removed (refer to the sweeping log in the attachments).

Employee Training

- Employees who perform street and parking lot sweeping are trained one time per year on these procedures and the proper operation of related equipment.
- Employees are also trained on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Attachments

1. Street and Parking Lot Sweeping Log

Street Sweeping Log
City of Warr Acres

Date	Operator	Weather Conditions	Streets/Parking Lots Swept	Number of Miles Swept	Volume/Mass of Material Removed	Corrective Action Taken/Recommended

Appendix M

Catch Basin Inspection and Cleaning

Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe (older catch basins may not have a sump). Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of trash, suspended solids, nutrients, bacteria, and other pollutants to receiving waters. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees on catch basin inspection and cleaning to reduce the discharge of pollutants from the MS4. If services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

This SOP can also be used for inspection of catch basins or manholes for the purpose of conducting catchment investigations as part of the municipality's Illicit Discharge Detection and Elimination program.

The City of Warr Acres performs routine inspections, cleaning, and maintenance of the approximately 50 catch basins that are located within the MS4 regulated area.

The City of Warr Acres will implement the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants from the MS4:

Procedures

Inspection and Cleaning Frequency

- Each catch basin should be cleaned and inspected at least annually.
- Catch basins near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment) or high-use areas should be inspected and cleaned more frequently if inspection finds excessive sediments or debris loadings.
- Catch basins should be cleaned to ensure that they are no more than 50 percent full[1] at any time. Establish inspection and maintenance frequencies needed to meet this "50 percent" goal. If a catch basin sump is more than 50 percent full during two consecutive inspections, document the findings, investigate the contributing drainage area for sources of excessive sediment loading, and, if possible, address the contributing sources. If no contributing sources are found, increase the inspection and cleaning frequencies of the sump.
- Street sweeping performed on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which they need to be cleaned. Streets and Parking Lots for information on appropriate street sweeping frequencies. Street sweeping schedules should also be adjusted based on catch basin inspection findings, with more frequent sweepings for areas with higher catch basin loads.

Inspection and Cleaning Procedures

Catch basin inspection and cleaning procedures should address both the grate opening and the catch basin structure, including the sump and any inlet and outlet pipes. Document any and all observations about the condition of the catch basin structure and water quality (an inspection form and log of catch basins cleaned or inspected are included in the attachments). Collect data on the condition of the physical basin structure, its frame, and the grate, as well as on the quality of stormwater conveyed by the structure. Observations like those below can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both oil and bacteria can create a sheen on the water's surface. The source of a sheen can be differentiating by disturbing it (e.g., with a pole). A sheen caused by oil will remain intact and move in a swirl pattern, while a sheen caused by bacteria will separate and appear "blocky." The bacteria that cause this sheen are naturally occurring iron bacteria – they are not considered a pollutant but should be noted. Other types of bacteria, such as fecal bacteria, are considered pollutants and their discovery should be recorded.

Observations like those below can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge:

- Indications of sanitary sewage, including fecal matter or sewage odors
- Foaming, such as from detergent
- Optical enhancers, fluorescent dye added to laundry detergent

[1] A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin

In general, adhere to the following procedures when inspecting and cleaning catch basins. Record the findings in the log in the attachments:

1. Implement appropriate traffic safety procedures (e.g., traffic cones) prior to and during the catch basin inspection and cleaning process.
2. Work upstream to downstream in a given drainage network.
3. Clean sediment and trash off of the grate.
4. Visually inspect the outside of the grate.
5. Remove the grate and visually inspect the inside of the catch basin to determine cleaning needs.
6. Inspect the catch basin for structural integrity.
7. Determine the most appropriate equipment and method for cleaning the basin:
    a. Manually use a shovel to remove accumulated sediments.
    b. Use a bucket loader to remove accumulated sediments.
    c. Use a high pressure washer to clean any remaining material out of the catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is cleaned, use the rodder of the vacuum truck to clean the downstream pipe and pull back sediment that might have entered it.
8. If contamination is suspected, refer to the City of Warr Acres Illicit Discharge Detection & Elimination Manual.

Handling and Disposal of Catch Basin Cleanings

- Properly dispose of collected sediments and catch basin cleanings (solid material, such as leaves, sand, and twigs removed from stormwater collection systems during cleaning operations).
- Cleanings from stormwater-only drainage systems may be disposed at the local landfill.
- Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed properly to prevent pollution.

Documentation and Reporting

The following information should be documented and included in the municipality's annual report – use the catch basin inspection log provided in the attachments to document the information to include in the report (alternatively, obtain records of volume of debris removed to include in the report):

- Metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4 (include in the SWMP and first annual report)
- Any action taken in response to excessive sediment or debris loadings
- Total number of catch basins
- Number of catch basins inspected
- Number of catch basins cleaned
- Total volume or mass of material removed from catch basins.

Employee Training

- Employees who perform catch basin cleaning and inspection are trained one time per year on these procedures and the proper operation of related equipment.
- Employees are also trained on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.

Attachments

1. Catch Basin Inspection Form and Log
2. Catch Basin Inventory

Related Standard Operating Procedures

1. Streets and Parking Lots

CATCH BASIN INSPECTION FORM

Job No.: _____ **Town:** _____ **Inspector:** _____ **Date:** _____

Catch Basin I.D.	_____	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:**_____	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other**_____		
Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: _____ ☐	**Catch Basin Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:_____	**Pipe Measurements:**	Inlet Dia. (in): d= ____ Outlet Dia. (in): D= ____

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _____

Catch Basin Grate Type:	**Sediment Buildup Depth:**	**More than 50% full?**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other:_____ Properly Aligned: Yes ☐ No ☐	0-6 (in): ____ 6-12(in): ____ 12-18 (in): ____ 18-24 (in): ____ 24 + (in): ____	Yes ☐ No ☐	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):_	Yes ☐	No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**		**Circle those present:**
	Color:		Foam / Oil Sheen
	Odor:		Sanitary Waste / Bacterial Sheen
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	Orange Staining / Floatables
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			Excessive sediment / Pet Waste
Amount of sediment removed:			Optical Enhancers
Comments:			Other:_____

Street Sweeping Log
City of Warr Acres

Date	Operator	Weather Conditions	Streets/Parking Lots Swept	Number of Miles Swept	Volume/Mass of Material Removed	Corrective Action Taken/Recommended

SECTION 16 CONFIDENTIAL INFORMATION

Information and data regarding a person, industrial facility or industrial activity obtained from reports, surveys, OPDES stormwater discharge permit applications or permits, monitoring programs, inspections and sampling activities may be available to the public in accordance with the Oklahoma Open Records Act, (51 0.S.2001, §§ 24.A.l, et seq.) or to other government agencies unless the industrial facility or industrial activity can demonstrate to the Administrative Officer's satisfaction that the release of such information would divulge information regarding trade secrets which is entitled to protection under applicable state law. If, in the opinion of the Administrative Officer, that information and data requested may disclose trade secrets or secret processes, then the information or data will not be made available.