NPDES Phase II MS4
2023 ANNUAL REPORT

Reporting Period 01/01/2023 thru 12/31/2023

Name of Permitted MS4:	City of Bartlesville
MS4 OKR04 Permit Number:	OKR040027
AR Reporting Period:	January 1, 2023 to December 31, 2023
AR Original Completion Date:	April 30, 2024
AR Latest Revision Number:	0 (no revisions to original)
AR Latest Revision Date:	0 (no revisions to original)
AR Preparer Name and Title:	Shelley Charles, Stormwater Manager
MS4 Contact Name & Title:	Micah Siemers, City Engineer
MS4 Contact Phone and Email:	(918) 338-4256, stormwater@cityofbartlesville.org

EXECUTIVE SUMMARY

The City of Bartlesville herein submits this Annual Report (AR) to the Oklahoma Department of Environmental Quality (ODEQ) as a comprehensive summary of all activities accomplished during the AR period of record. This AR is required by Part VI.C of the "*ODEQ General Permit OKR04 for Phase II Small Municipal Separate Storm Sewer System [MS4] Discharges within the State of Oklahoma*". This annual report is in reference to the City of Bartlesville's Phase II Stormwater Management Program (SWMP) document. Contents of the SWMP are reviewed annually and revisions made as needed. The Sections of this Annual Report address all requirements in OPDES Permit OKR04 for Small MS4s, Part VI.C., and within other parts of the OKR04 permit:

Section	Section Title
I	Certification Statement
II	Overview of the Stormwater Program Implementation
III	Permit Compliance Status
IV	BMPs - Summary Table & Details
V	303(d) Impaired Waterbodies & 303(d) Targeted BMPs
VI	TMDLs
VII	Agreements With Other Governmental Entities
VIII	MS4 Boundary
Appx A	Letters of Commitment from Other Governmental Entities
Appx B	Map of MS4 Boundary Changes During Reporting Cycle
Appx C	Blue Thumb Volunteer Monthly Testing Data for Turkey Creek - Annual Report

Questions for local officials about this AR or Stormwater Program should be directed to the MS4 Contact Person listed on the cover page. Questions about the State's Phase II Stormwater Permit Program should be directed to the ODEQ Water Quality Division.

I. CERTIFICATION STATEMENT:

"I certify under penalty of law 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."

Micah Siemers, City Engineer

4/29/2024
Date

II. OVERVIEW OF THE STORMWATER PROGRAM IMPLEMENTATION:

The following is a brief overview of the past year's implementation activities. Additional details about each item are presented elsewhere in the Annual Report (AR).

Table 1: Stormwater Program Overview

Annual Report Conditions	Activity Description
Fiscal Year or Calendar Year	The City of Bartlesville compiles stormwater program data on a **Calendar Year** basis.
Governmental Entities Used	We are a member of [1]INCOG's Green Country Stormwater Alliance (GCSA). Both INCOG & [2]OCC provide certain services that are discussed in Section VII of this AR.
Consultants, Organizations Used	Oklahoma Blue Thumb, Washington County Emergency Management, EPA, ODEQ, OSU Extension Service, Green Country Stormwater Association, & Hazard Mitigation Committee provided assistance with services as discussed in Section VII of the AR.
SWMP Review	The SWMP was reviewed during AR preparation. In response to the latest OKR04 Permit requirements and the 2020-2021 ODEQ evaluation, the City has made revisions to address the new permit changes and comments received. BMPs 34 thru 40 were added to further address bacterial impairment in 303(d) listed waters, BMP #7 (Conference Attendance) was combined with BMP #2 (Staff Training / Continuing Education) and a BMP specifically for IDDE was added in place of Conference Attendance as #7.
Changes Planned for Next Year	No changes are planned for the next year however the MS4 will continue to review and evaluate annually to ensure that stormwater discharges from the MS4 will not cause, have reasonable potential to cause, or contribute to an in-stream exceedance of the water quality standards.
Program Funding Sources	Funds for the stormwater program are allocated annually and come from multiple departmental budgets.
303(d) Impaired Waters	Portions of four (4) 303(d)-listed waterbodies' watersheds fall within the MS4's boundary, as discussed in Section V of this report.
TMDL Watersheds in MS4	There are two (2) finalized TMDLs that fall within the City's MS4 boundary but on both, less than 1% of the TMDL's watershed area falls within the MS4's boundary and ***No TMDL actions are required of this MS4,*** as discussed in Section VI of this report**.**
Aquatic Resources of Concern (ARC) for Protected Species in MS4	No part of the City of Bartlesville's MS4 lies within any areas of Aquatic Resources of Concern (ARC), according to the map included in the current OKR04 Ph Π Permit for Small MS4s.
Outstanding Resource Waters (ORW) in MS4	There are no ORW waters within the MS4.

[1] INCOG – Indian Nations Council of Governments
[2] OCC – Oklahoma Conservation Commission

III. PERMIT CONDITIONS - COMPLIANCE STATUS

The following list of Permit Conditions is taken from the OKR04 Permit. These "Permit Conditions" represent all major areas of permit requirements that must be addressed, including the Minimum Control Measures. The status assigned to each of these Permit Conditions in Table 2 below is general; each of the MCMs is addressed in greater detail in Sec IV. A, Table 3 and in the BMP Details in Sec IV.B. of this report.

Table 2: Compliance Summary Table

Permit Condition	Compliance Status	Future Actions Needed
Allowable Discharges	The City's list of allowable non-stormwater discharges was updated to reflect the current OKR04 Permit requirements.	No status change or required actions are anticipated.
Historic Preservation	The City of Bartlesville continues to comply with all federal, state, and local laws pertaining to Historic Preservation. The City had an Intensive Architectural Survey done by SHPO in 1988 and a follow up Reconnaissance Level Survey done in 2007.	The City of Bartlesville will continue to comply with all local, state, and federal laws pertaining to historic preservation.
Endangered Species / Aquatic Resources of Concern (ARC)	The MS4 remains in compliance of Criterion A of the current OKR04 Permit, meaning it is not located within any of the shaded areas or watersheds listed in Exhibit I of the Permit, therefore no endangered or threatened species or critical habitats are in proximity to the MS4 and the point where authorized discharges reach waters of the state is not located within an area shown as an ARC.	No status change or required actions are anticipated.
Co-Permittees	The City of Bartlesville is not a co-permittee with another MS4.	No status change is expected.
Water Quality Standards (WQS)	The MS4 was not notified of any WQS violations caused by stormwater discharge.	City will contact ODEQ if any notice of violation is received, and will work to develop a strategy to ensure WQS protection.

Permit Condition		Compliance Status	Future Actions Needed
303(d) Impaired Waters		The MS4 utilizes BMPs to target sources that could potentially contribute to the impairment causes of any 303(d)-listed receiving waters crossing within the MS4's boundary.	The MS4 will continue to implement enhanced BMPs to address the impairment causes of any 303(d)-listed receiving waters crossing within the MS4's boundary.
TMDL Compliance		There are currently no TMDL requirements applicable to this MS4.	The MS4 will continue to review TMDL updates and will seek assistance with any future compliance requirements.
Outstanding Resource Waters (ORW)		No part of the MS4 discharges to an ORW waterbody.	No changes are expected in 2024.
MCM-1: BMPs and Measurable Goals	Public Education & Involvement	100% successful implementation of BMPs planned for the year.	Continue implementation to attain goal of 100% compliance.
MCM-2: BMPs and Measurable Goals	Industrial Stormwater Runoff Control	This Category 2 MS4 is not required to implement and enforce an industrial program at this time.	No changes expected in 2024.
MCM-3: BMPs and Measurable Goals	Illicit Discharge Detection & Elimination (IDDE)	100% successful implementation of IDDE related BMPs for the year. **The City has a Standard Operating Procedure (SOP) in place for receiving IDDE reports, investigating them within 72 hours, and resolving/removing any discovered sources, which is included in the SWMP.**	Continue implementation to attain goal of 100% compliance.
MCM-4: BMPs and Measurable Goals	Construction Site Stormwater Runoff Control	100% successful implementation of BMPs planned for the year. Also, to meet requirements in ODEQ's evaluation follow-up letter dated June 7, 2022, the MS4 amended ordinances (See Section IV.B.4) and began documenting inspection and utilizing enforcement procedures for repeat and/or recalcitrant offenders.	Continue implementation and attain goal of 100% compliance.

Permit Condition		Compliance Status	Future Actions Needed
MCM-5: BMPs and Measurable Goals	Post-Construction Management in New Development & Redevelopment	100% successful implementation of BMPs planned for the year.	Continue implementation and attain goal of 100% compliance.
MCM-6: BMPs and Measurable Goals	Pollution Prevention / Good Housekeeping for MS4 Operations	100% successful implementation of BMPs planned for the year. We have also addressed findings in the Dec 2020 ODEQ evaluation letter pertaining to MCM-6. (See Sections IV.B & IV.C)	Continue implementation and attain goal of 100% compliance.
MCM-7: Municipal Construction Projects		Not participating.	N/A
SWMP Updates		The SWMP was reviewed as part of the AR preparation. In response to the new OKR04 Permit requirements and the 2020-2021 ODEQ evaluation, we are still working through the document to ensure we address all permit changes and ODEQ findings.	Work to complete revisions of SWMP.
ODEQ Enforcement Actions Against MS4		Dec 2020 Evaluation letter and Jun 2022 Follow-Up Letter.	Continue to implement program and work to ensure compliance with all current OKR04 Permit requirements.
24 Hour Reporting of Pollution Events by MS4		No episodes to report this cycle.	Will report episodes as needed.

IV. Best Management Practices (BMPs)

The City has reviewed, assessed, and updated the current BMPs based on their appropriateness and effectiveness in achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable.

A. BMP Summary

Table 3 includes a summarized list of all MS4's Best Management Practices (BMPs). Each includes applicable MCM(s), a measurable goal, the target audience, the person responsible for implementation, a recurring timeframe, and a column noting if the goal was achieved for the year.

TABLE 3: Current BMPs Summary

Goal columns represent period in which each BMP was or will be deployed: 1st = Jan-Mar; 2nd = Apr-Jun; 3rd = Jul-Sep; 4th = Oct-Dec;

BMP	MCM Type (s)	Measurable Goal / Target Audience	Who Will Implement	Frequency	Goal Met (Y/N)	Annual BMP Effectiveness Evaluation
1. **Brochures/ Flyers**	1,3,4, 6	Distribute 100 educational brochures / targeting Citizens (40), Ranchers (5), Pet Owners (48), Septic System Owners (5), & Pond Owners (2)	Shelley	Annually	Y	Brochures and Flyers continues to be an excellent method of distributing stormwater information to targeted groups and our MS4 residents.
2. **Employee Training & Continuing Education**	1, 2, 3,4,5, 6	In-person & online classes (8 hrs min) for Stormwater Mgr and City Inspector / and one class per year for other applicable City Employees training for IDDE & applicable Good Housekeeping BMPs	Shelley & James / James	Annually	Y	Continuing education and employee training is critical to ensuring city staff is effective in protecting our area waterways.
3. **MS4 Mapping**	1,3,4, 5,6	Maintain and annually update map showing outfalls and names and locations of all waters of the state receiving discharges from outfalls / City Staff & Area Citizens	Shelley & GCSA	Annually	Y	The MS4 Mapping is an effective and valuable tool for stormwater management and illicit discharge investigations.
4. **Ordinance Review**	3,4,5	Review IDDE Ordinance, LID Ordinance, and other SWPP related ordinances, revise as needed, & enforce / general public, developers & contractors	Shelley & Micah	Annually	Y	Reviewing ordinances is an effective way to continue to meet regulatory requirements.
5. **Annual Report, NOI, SWMP Publication**	1	Post current documents on website / targeting the general public	Shelley	Annually	Y	Posting the MS4's current documents on the website allows residents to learn about the OKR04 Permit and the City's Stormwater Management Program.
6. **Site Plan Reviews**	1,4,5, 6	Involve Developers to minimize water quality impact with highest preference given to LID techniques and practices; Utilize checklist for site plan reviews & review list annually / Developers	Micah	Annually	Y	The site plan review process is an effective and consistent way to ensure that plans have been developed in accordance with City and DEQ's OKR10 requirements.
7. **Illicit Discharge Detection & Elimination (IDDE) Program**	1,3,6	Receive Illicit Discharges reports from Public through Stormwater Hotline, stormwater email, and employees' sightings; investigate using simple field test kit following IDDE SOP; Maintain and annually review list of occasional incidental non-stormwater discharges not addressed as illicit discharges.	Shelley & James	All Year	Y	The IDDE Program provides an effective way of documenting, reporting, investigating, and eliminating illicit discharge.

BMP	MCM Type (s)	Measurable Goal / Target Audience	Who Will Implement	Frequency	Goal Met (Y/N)	Annual BMP Effectiveness Evaluation
8. **Public Meetings**	1,3,4, 5,6	1 Public Meeting (min) / general public	James/ Shelley	Annually	Y	Public Meetings continue to be an effective method of informing the public regarding stormwater issues.
9. **Pollution Data**	1,3,4, 5,6	Gather, Log, & Review Blue Thumb Testing Data done in MS4 and log all drainage complaints / stormwater manager	Shelley	All Year	Y	The Blue Thumb Volunteer Testing Program is effective in providing valuable data to the City regarding the area's water quality.
10. **Stormwater Website**	1,3,4, 5,6	Maintain & Update City Stormwater Website / general public, contractors, & developers	Shelley	Annually	Y	The website is an effective tool for providing information on the City's Stormwater Management Program, volunteer opportunities, and development rqmts to area citizens, contractors, and developers.
11. **Stormwater Display**	1,3,6	Maintain one educational stormwater display at City Hall or Library / general public	Shelley	Annually	Y	This display engages and educates area residents while they wait in line at our teller windows. Matching booklets are also available for them to take home.
12. **Contractor Developers and Local Industries Education**	1,2, 3,4,5, 6	Distribute applicable brochures to 3 local contractors and 3 local businesses / Developers and Businesses	James	Annually	Y	Distributing information to contractors and developers is effective in keeping them informed of changes to regs & requirements.
13. **School Age Education**	1,3	Distribute 100 Children's Coloring Books and Update Educational Opportunities on Website / area kids	Shelley	Annually	Y	The coloring books continue to be popular with children, teachers, and parents, and are an effective way of getting stormwater tips into and implemented in area homes.
14. **Adopt-A-Stream Program**	1,3	Update & Promote Program Information on Website / area citizens and groups	Shelley	Annually	Y	Advertising and promoting ways for citizens and groups to get involved in protecting our area waterways is an important aspect of the Public Outreach and Education Program.
15. **Storm Drain Marking**	1,3	Mark 10 area storm drain inlets and promote volunteer storm drain marking program / area citizens and groups	James	Annually	Y	Educating others about where the water goes is effective in reducing the dumping of pollutants into the storm drains.

BMP	MCM Type (s)	Measurable Goal / Target Audience	Who Will Implement	Frequency	Goal Met (Y/N)	Annual BMP Effectiveness Evaluation
16. **Stream Cleanup**	1,3	Review and update website information and promote volunteer cleanups / area citizens & groups	Shelley	Annually	Y	Getting others to help keep area waterways clean is key to long-term success in protecting our waters.
17. **Pollutant Collection**	1,3,6	Participate in Annual Clean House Collection Event / area citizens	Micah	Annually	Y	The annual clean-up event continues to be an effective way of removing and safely disposing of many tons of hazardous pollutants.
18. **Recycling**	1,3,6	Promote Recycling and Special Events on Social Media & in City Newsletter (5x min) / area citizens	Shelley	Annually	Y	Recycling continues to be an effective way of removing and reusing many tons of waste items that would otherwise end up in area landfill or our local waterways.
19. **BMPs for MS4 Maintenance/ Line Breaks/ Emergency Repairs**	6	Implement in 2024 & enforce the use of BMPs during routine maintenance, water line breaks, emergency repairs and stabilize within 14 days of completion / MS4 field crews & contractors hired to perform maintenance activities	Shelley/ James	All Year	Y	BMP being implemented to meet requirements of OKR04 Ph 2 MS4 Permit to control, reduce, & eliminate discharge of pollutants from MS4 activities.
20. **Post-Construction BMP Inspections**	3,5,6	Review and Update Map and Perform Annual Post-Construction Inspections / Stormwater Manager and Inspector	James/ Shelley	4th	Y	Post-construction inspections are an effective way to ensure that BMPs are maintained and functioning as planned.
21. **Construction Site Inspections**	4,5	Inspect & enforce municipal, state, & federal requirements – maintain records of all OKR10 site inspections / stormwater inspector	James	All Year	Y	These are an effective way of ensuring contractors provide and maintain BMPs in accordance with approved plans and meet City and DEQ requirements.
22. **City MS4 Facility Inspection**	3,6	Review list of MS4 Operations impacted by this program - perform annual facility inspection at Operations Yard & Golf Course Maintenance Facility / municipal employees	James	4th	Y	MS4 Facility inspections are an effective way of ensuring Good Housekeeping BMPs are properly implemented and maintained.
23. **Social Media Posts**	1,3	Stormwater quality ads on Social Media / general public	Shelley	Annually	Y	Social Media Posts are an effective method of reaching and educating more citizens on ways they can help protect local waterways.
24. **Green Program**	1,3,6	Conduct Green Events promoting trees & low-water habitat plantings (1x min) / general public	Bobby	Annually	Y	Arbor Day Event and Annual Plant Sale are effective ways to share green information with citizens.

BMP	MCM Type (s)	Measurable Goal / Target Audience	Who Will Implement	Frequency	Goal Met (Y/N)	Annual BMP Effectiveness Evaluation
25. **Stormwater Hotline / Email / 2-Way Line of Communication**	1,3,4	Post hotline and email on website; Maintain a log of all complaints & comments received. Investigate all complaints within 72 Hours of receipt / general public	Shelley	All Year	Y	The Stormwater Hotline and Email Reporting Options are valuable resources for citizens to easily report issues and concerns.
26. **Digital Newsletter Ads**	1,3	Place stormwater awareness ad in City Newsletter (2x min) / general public	Shelley/Kelli	2X/Year (min)	Y	Publishing ads in the City's Weekly Newsletter is an effective method of reaching and educating citizens on ways to protect our waterways.
27. **MS4 Operations & Industrial Facilities Lists**	6	Maintain and update a list of industrial facilities owned and operated by MS4, subject to OKR05, or individual OPDES, or NPDES Permit / SW staff	Shelley	Annually	Y	Maintaining this list is a critical aspect to the regulatory component of the program and vital to ensuring timely inspections.
28. **Street Sweeping**	6	Sanitation Dept. uses two trucks daily and covers entire City 6 times a year / benefits general public	Keith	Annually	Y	This BMP is effective at removing litter, sediment, and other debris from the MS4.
29. **Flood and Floodplain Management**	1,3,4, 6	Review floodplain program; mail out one floodplain brochure in utility bills; Ensure new flood management projects assess the impacts on water quality and examine existing projects to determine if incorporating additional water quality protection devices and practices are necessary / area homeowners, renters, developers	Micah	Annually	Y	This BMP is effective in educating the public and ensuring that new floodplain projects do not cause, have reasonable potential to cause, or contribute to in-stream exceedance of WQ standards.
30. **Ditch Cleaning**	6	Clean 5 ditches (500 l.f.) / to benefit the general public	Lance	Annually	Y	This BMP is effective in removing floatables, litter, and other debris and restoring proper flow rates.
31. **Dry Weather Field Screenings (DWFS)**	3,6	Inspect 40% of MS4's outfalls (50 total=inspect 20) focus on high priority areas / stormwater inspector	James	Annually	Y	DWFS is an effective tool for identifying and eliminating illicit discharges.
32. **Pet Waste Stations**	3,6	Maintain Existing Pet Stations / area pet owners	Bobby	All Year	Y	This BMP is effective in removing pet waste and preventing the bacteria from entering our waterways.
33. **Storm Drain Maintenance**	3,6	Clean area inlets after major rain events / to benefit the general public	Lance	All Year	Y	This BMP is effective in removing floatables, litter, and other debris and restoring proper flow rates.

BMP	MCM Type (s)	Measurable Goal / Target Audience	Who Will Implement	Frequency	Goal Met (Y/N)	Annual BMP Effectiveness Evaluation
34. **Sanitary Sewer System Inspections**	3,6	Inspect 400 lf High-Priority Sanitary Sewer Lines / Wastewater (WW) Department	WW Mntc Mgr	Annually	Y	These allow us to find breaks and leaks that may allow bacterial pollutants to get into our waterways.
35. **Sanitary Sewer System Repairs**	3,6	Make repairs covered by annual budget as discovered / WW Dept	WW Mntc Mgr	Annually	Y	These repairs are effective in eliminating breaks and leaks that can allow bacterial pollutants to get into our area waterways.
36. **Lift Station Inspections**	3,6	Inspect 2 Lift Stations located in Bacteria Impaired 303(d) watersheds/ WW Dept	WW Mntc Mgr	Annually	Y	These inspections are effective in finding potential problems that may allow bacterial pollutants to get into our waterways.
37. **Lift Station Maintenance**	3,6	Perform basic maintenance & evaluate for larger projects / WW Dept	WW Mntc Mgr	Annually	Y	This maintenance is effective in preventing leaks and other issues that could allow bacterial pollutants to get into our area waterways.
38. **Spill Response SOP Review**	1,2,3, 6	Review SOP & Replenish Supplies / Public Works Dept (PW)	Keith / PW Director	Annually	Y	Ensuring Good Housekeeping measures meet current permit requirements is a critical aspect to the regulatory component of the program.
39. **Spill Response Training**	1,2,6	Staff Training on Spill Response SOP / Public Works Staff	Public Works Director	Annually	Y	Ensuring Good Housekeeping Employee Training meets current permit requirements is a critical aspect to the regulatory component of the program.
40. **On-Site Sanitary Sewer Facilities (OSSF) Inspections**	3,6	Identify & Inspect Five (5) OSSFs / OSSF Owners	Water Utilities Director	Annually	Y	These inspections allow us to share tips and guidance with Owners, educating them on proper system maintenance and helping to prevent system failures and bacterial pollutants getting into our area waterways.

B. BMPs – Additional Details

The following section details the specific work done on each BMP over the course of 2023.

1. Brochures/Flyers:
    a. 110 seasonal stormwater brochures were printed and distributed in the City Hall Lobby throughout the year.
    b. 10 Educational brochures targeting Ranchers were distributed at the ranch supply store.
    c. 50 Educational Brochures targeting Pet Owners were distributed at the Dog Park.
    d. OSSF brochures were distributed to 5 OSSF Owners by the Utilities Director throughout the year.
    e. Pond Maintenance Brochures were distributed to 2 area Pond Owners.

2. Municipal Employee Training & Continuing Education:
    a. The City Stormwater Manager and City Stormwater Inspector received training through GCSA and eight additional hours of online training classes each.
    b. The City Stormwater Inspector conducted in-person training classes for key field personnel this year. Additionally, all City inspectors, field personnel, and applicable Operations Center employees received IDDE and Good Housekeeping training via printed literature distributed and gone over with them by their supervisors.

3. MS4 Maps:

    The City's stormwater infrastructure map is kept up-to-date throughout the year as new infrastructure is added and as changes are made to the system. This map aids the municipal staff in coordinating stormwater management activities, tracking storm drain maintenance, investigating illicit discharge reports, and creating other maps for the Stormwater Management Program, including an outfall inspection map and post-construction structural BMP map. Also, much of the stormwater infrastructure data is viewable by the public through the City's online GIS mapping system.

    The MS4 Boundary Map was reviewed and reflects the 2022 Water Quality Integrated Report's 303(d) list and TMDL data. No additional property was annexed into the City in 2023. The current boundary map, updated by the City of Bartlesville, was originally compiled by GCSA, from existing City records, public-domain GIS data, aerial photographs, radar-generated topography, USGS 7.5 Minute Quadrangles, FEMA Flood Insurance Rate Maps (referenced for labeling USGS unnamed tributaries), and from spot field verifications using Global Positioning System (GPS).

4. Ordinance Reviews:

    The following Ordinances were reviewed and enforced throughout the year:
    - IDDE Ord 3068 – Municipal Code Sec 17.1
    - LID Ord 3443 – Municipal Code Sec 7.4.3.2.C - Preference is given to LID
    - Removing LID Barrier, Ord 3560 - Natural Landscaping barriers removed.
    - BMP Requirements, Ord 3565 - Soil Erosion & Sediment Control Rqmt Revs
    - Other Stormwater Pollution Prevention Related Portions of the Municipal Code were reviewed.
    - Current guidelines regarding street design and parking lot design are being assessed and the implementation of LID options is being discussed.

5. Annual Report, NOI, SWMP, & OKR04 Permit Available:

   The above records are made available to the Public on the City's Stormwater Management Website and hardcopies are available upon request. There is an email address and phone number included on the website for public comments and questions.

6. Site Plan Reviews:

   a. A Pre-Application Meeting is held with developers to discuss proposed developments, go over regulations and requirements, and review ways they can minimize the water quality impact with the highest preference given to LID techniques and practices.
   b. In order to ensure stormwater quality requirements are incorporated into each set of plans and to make sure they meet all applicable regulations and standards the City Engineer uses a checklist to review each set of plans.
   c. Persons conducting any land disturbing construction activity must provide, implement, and maintain adequate structural and/or nonstructural Best Management Practices (BMPs) to control erosion and prevent the discharge of pollutants to the area waterways and municipal stormwater drainage system.
   d. Any development disturbing an area greater than or equal to one (1) acre and any development disturbing less than one (1) acre, if the site is part of a larger common plan of development or sale, to be designed so that stormwater leaving the site leaves at a rate no greater than was released prior to development. OKR10 Permit Authorization must be obtained and a copy of the authorization provided to the City prior to beginning any land disturbing activities.

7. Illicit Discharge Detection & Elimination Program (IDDE): Our IDDE Program enforces our IDDE Ordinance. IDDE Reports are received from the Public through the Stormwater Hotline or Stormwater Email and from employee sightings. These reports are logged and investigated within 72 hours, following IDDE Standard Operating Procedures (SOP) and using the MS4 stormwater maps and a simple testing kit. A list of occasional incidental non-stormwater discharges, which are not addressed as illicit discharge, is reviewed annually and updated as needed. Any discovered unauthorized illicit discharges are removed.

8. Public Meetings: At the 2023 Public City Council Meetings, multiple stormwater topics were discussed including Stormwater Improvements, Rain Gardens, Natural Landscaping Options in Yards, Arbor Day Event, Bi-Annual Free Yard Waste Collection Events, Free Christmas Tree Mulching Event, Flood Awareness Month, and the Mayor's Water Conservation Challenge.

9. Pollution Data: Each year, the City Stormwater Manager gathers and logs all monthly water testing data collected by local Blue Thumb Volunteers within the MS4 boundary. The yearly report can be found in Appendix C.

10. Stormwater Website: The City Stormwater Manager maintains the Stormwater Management Website. In 2023 the website had 221 views. The website contains the City's OKR04 stormwater permit information, a stormwater hotline number, contact email address, educational resources, volunteer opportunities, construction stormwater regulations, permit applications, links to standards, and it promotes and encourages the use of Low Impact Development (LID). It also includes a link to the GCSA website which is maintained by GCSA for their alliance members with additional links and resources.

11. Stormwater Display: The City maintains a year-round slideshow in the lobby, which contains

stormwater management tips for residents and highlights ways citizens can help keep the waterways clean. Slides are projected on 2 large screens for people to read while waiting in line at the windows.

12. Developers, Contractor, and Local Industries Education: 6 Erosion Control Information Packets and LID brochures were distributed to developers and home builders in the area. 5 area contractors received erosion control literature. 1 local landscaper received a brochure regarding fertilizer and pesticide use and 2 local restaurants received brochures on grease, fat, & oil disposal.

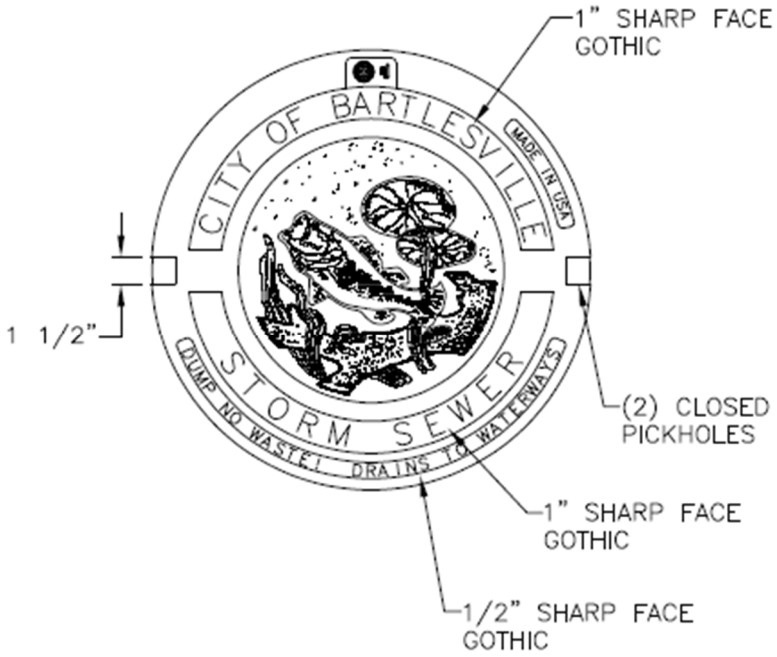
13. School Age Education Program: The City prints and provides "Water Wise" educational coloring books in the lobby of City Hall and available by special order. They are free to all citizens and a popular and effective means to bringing stormwater pollution prevention into area homes. 150 were distributed in 2023. Also, GCSA & Blue Thumb help with the education program by providing additional tools, resources, and services as needed.

14. Adopt-A-Stream Program: Although no groups came forward in 2023, the MS4 continues to advertise this program as another option for volunteer groups and organizations looking for ways to get involved and help protect our area waterways.

15. Storm Drain Marking Program:

    a. In 2023, 14 curb inlets were marked along adjacent to a new sidewalk project on 5th St (stencil and example pictured below). The City advertises this volunteer opportunity throughout the year in both the main lobby and on the City's Stormwater Management Website.

    b. Custom Manhole Lids: The City has placed a total of 65 new lids around town reminding citizens not to dump into the storm drains. The new lid style has been adopted as the City's standard for all new development.



16. Stream Cleanup: The City continues to advertise and encourage stream clean-up days as a volunteer opportunity for individuals, groups, & organizations. The City also encourages participation in the Oklahoma Department of Transportation's (ODOT) Trash-Off Program. Although no groups came forward in 2023 wishing to hold an event, several area volunteers pick up trash throughout the year and the local courts assign misdemeanant labor to work with the MS4 crews picking up trash as needed. A total of 32 bags of trash were collected in 2023.

17. Pollutant Collection Events:

    a. **Annual Hazardous Materials Collection Event** - On Saturday, April 22nd this year, the City of Bartlesville participated in an annual hazardous materials collection event called "Operation Clean House". This event gives area residents the opportunity to dispose of hazardous materials in a safe manor. These materials are collected and then taken to appropriate facilities, thus removing their potential to get into our waterways. Below is a summary of this year's event.

2023 OPERATION CLEAN HOUSE EVENT SUMMARY		
Category	Bartlesville	Dewey
Cars	548	288
Volunteers	137	37
Volunteer Hours	576	165.5
Electronics (lbs)	24,078	–
Hazardous (lbs)	9,142	–
Oil (gallons)	–	740
Antifreeze (gallons)	–	130
Tires	–	910
Automotive Batteries	–	75
Appliances	–	1

    b. **Free Landfill Visit Coupons** - The City mailed out a coupon in the January utility bills, for a free-trip to the local landfill, allowing citizens an opportunity to dispose of items typically too large or cumbersome for their weekly trash pick-up, at no charge. In total, these coupons succeeded in removing 1,853 truck-loads of materials that may have

otherwise been deposited unlawfully and potentially adversely affected our local waterways.

c. **Free Yard Waste Collection Events in Spring and Fall** - The City conducted two yard waste collection events allowing area residents more opportunities to participate in protecting our local waterways. From May 8th thru 12th and Dec 4th thru 8th, the City offered free collection of unlimited amounts of bagged leaves, grass, and limbs (not exceeding 4 feet in length or 50 pounds each). The Spring Event collected 45.44 tons and the Fall Event collected 201.78 tons for a total of 247.22 tons of debris that could have otherwise ended up getting into and adversely affecting our local waterways.

d. Also see recycling buyback events included under No. 18. Recycling Section, below.

18. Recycling:

Recycling Program: The City of Bartlesville began a new recycling program with Replenysh, a California-based company, in October of 2021. Through the company's platform, anyone can sign up as a "host" or as a collection site, request new collection sacks, or request for full sacks to be picked up by a Replenysh collector. The platform also connects those looking to recycle with nearby collection sites. Replenysh then sells collected materials to manufacturers, paying hosts a percentage of the revenue. The program has been a great success. In 2023, a grand total of 398 tons of recycling was collected.

Buyback Recycling Events: Every Friday, from February 10th thru June 30th, the City recycling center operators hosted 10 weekly "buyback events", where citizens were able to earn $0.10/lb for PET #1 bottles and $0.50/lb for aluminum cans.

19. BMPs for MS4 Maintenance / Line Breaks / Emergency Repairs Program: In the coming year the City will be implementing & enforcing the use of BMPs during routine maintenance, water line breaks, & emergency repairs and proper stabilization within 14 days of completion of work, in order to meet requirements in the latest OKR04 Permit.

20. Post-Construction BMP Inspections: To ensure adequate, long-term operation and maintenance of post-construction BMPs, the City Stormwater Manager reviewed and updated the map of all major post-construction BMPs installed in the past 15 years and the City Stormwater Inspector performed post-construction inspections at each of the identified location utilizing an annual inspection form.

21. Construction Site Inspections: 181 Construction Stormwater Inspections were performed and documented in 2023, by the City's Stormwater Inspector who is certified as a Qualified Construction Stormwater Inspector (QCSI). Utilizing an adopted construction site inspection form, each OKR10 site is inspected at the beginning of the project, once a month throughout construction, after any major rain events, and at the final close-out when the project is complete and final requirements have been met.

22. City Facility Inspection: The City Stormwater Inspector, who is a Qualified MS4 Facility Inspector, conducted annual municipal facility inspections at the Operations Center and the Golf Course Maintenance Facility in the Fall of 2023. Minor comments were addressed.

23. Public Media Article Placement: In 2023, thirteen (13) social media posts were made on the City's Facebook Page informing the public about storm water management related topics, public participation opportunities, and upcoming SWMP related events. (Appendix C).

24. Green (Trees/Plants) Program:
    a. The City of Bartlesville continues to participate in the Tree City USA Program and continues to be recognized as a "Tree City USA" by the National Arbor Foundation as it has for the past 40 years.
    b. The City's Tree Committee, comprised of five citizens and one non-voting City staff member, sets the City's arbor policies and plan and conduct the annual Arbor Day event. The 2023 Arbor Day Ceremony was held at Douglas Park, 509 SW Bucy Ave, on Nov 9th.
    c. The City of Bartlesville and the Bartlesville Council of Garden Clubs held their annual plant sale on April 22nd in the Eastland Shopping Center. The annual event promotes the use of rain gardens and xeriscaping in lieu of irrigation. It also offers milkweed plants, nectar flowers, pollinator kits, community education, encouragement, and instruction for establishing habitats to help replenish the monarch butterfly population.
    d. On the City's website and in meetings with developers, the City encourages and promotes the use of rain gardens in residential and commercial developments and also by individual homeowners.
    e. On the City's website and in meetings with developers, the City encourages and promotes the use of xeriscaping to reduce or eliminate the need for irrigation after initial establishment of plantings and to help reduce pollution from planter beds.
    f. After Christmas, the Bartlesville Parks & Recreation Department again offered free mulching of Christmas trees after the holidays. Citizens could drop off their undecorated trees at a fenced-in location designated in Sooner Park, just off Madison Blvd, from Dec 26th, 2022 to Jan. 23rd, 2023. The mulch was made available to the public at no cost as quantities allowed.

25. Stormwater Hotline/Email/2-Way Line of Communication:
    a. The City's Stormwater Management Website includes a hotline number for reporting IDDE violations and drainage complaints and for submitting general inquiries and comments.
    b. 14 drainage complaints were received and logged into a drainage complaint database where progress was tracked, updated, and information saved for future reference.
    c. 2 IDDE reports were received, investigated, and resolved.

26. Digital Newsletter Ads: The City's free digital newsletter is sent out via email on a monthly basis to subscribers, which reaches approximately 5300 households in the MS4 area. In 2023 forty-six (46) articles relating to stormwater awareness information, upcoming events, recycling information, and volunteer opportunities were included in the newsletter.

27. MS4 Operations and Industrial Facilities Lists: The City maintains and updates an inventory of all MS4 operations that are impacted by this program and a list of industrial facilities owned and operated by the MS4 that are subject to OKR05 or individual OPDES or NPDES permits for discharge of stormwater associated with industrial activity, including the authorization number or industrial NOI for each facility.

28. Street Sweeping/Road Cleanup: The City owns two street-sweeping trucks and uses them daily to cover the entire city in a two-month period. On average, each truck collects two (2) loads a day and each truck holds five (5) cubic yards of dirt and debris. Over 5000 cy of dirt and debris was collected this year. The materials collected were disposed of at the area landfill. Materials are not currently tested for contaminants.

29. Flood and Floodplain Management:
    a. Each year the City mails out a flyer once a year to area residents with information regarding area flooding and floodplain development.
    b. Bartlesville is a National Flood Insurance Program Community, No. 400220, and has been since July 16, 1980.
    c. Bartlesville is a Class 7 CRS Community and has been since January 16, 2002.
    d. The City Floodplain Manager is currently the City Engineer, Micah Siemers.
    e. The City's Floodplain Management Program is addressed in the Bartlesville Municipal Code, Chapter 7, Flood Prevention and Control under Title 82, Section 1604 of the Oklahoma State Statutes requiring:
        i. Elevation Certificates to be maintained.
        ii. One-Foot Freeboard
        iii. Compensatory Storage
        iv. No-Rise Certifications
    f. Each new flood management project impact on water quality is assessed to determine if incorporating additional water quality protection devices and practices are necessary.

30. Ditch Cleaning: The City cleaned, cleared, and restored 2,945 l.f. of ditch lines throughout the year and took the organic debris to the area landfill, removing potential stormwater pollutants and restoring proper drainage flows.

31. Dry Weather Screening: The stormwater manager reviewed the outfall map and the City Stormwater Inspector performed DWFS inspections on 20 outfalls (50 total outfalls x 40% = 20 outfalls inspected), focusing on high priority areas. In one location, flow was found, traced, identified and remedied. Chlorine strips were used to test flows. A water main leak was identified as the cause and the leak was repaired. Additionally, the Street Department did visual dry-weather inspections at other outfall locations throughout the year during routine maintenance operations. The City Stormwater Manager maintains a basic field-testing kit which contains strips, kits, and equipment for the testing of pH, turbidity, dissolved oxygen, temperature, hardness, alkalinity, lead, copper, iron, nitrates, nitrites, chlorine, & bromine, which are used as needed by the stormwater inspector during investigations.

32. Pet Waste: Pet waste stations at the dog parks, public parks, and along the City's trail system are maintained by the City's Parks Department throughout the year. This year the park department utilized 6,000 pet waste bags.

33. Storm Drain Inlet Maintenance Program: The City Street Department currently cleans and checks most all storm inlets after each major rain event. They also address any complaints received throughout the year. The Engineering Department works with the Street Department to address complaints, assess problem areas, and determine inlets in need of further attention. All complaints are logged and tracked in a database. All storm drain maintenance is scheduled through the street department.

34. Sanitary Sewer System Inspections: The Sanitary Sewer Department inspected over 400 lf of lines focusing on high-priority areas.

35. Sanitary Sewer System Repairs: Two breaks were found during high-priority area line inspections and both were repaired.

36. Lift Station Inspections: The Sanitary Sewer Department inspected 4 Lift Stations located in high-priority 303(d) impaired watersheds.

37. Lift Station Maintenance: The Sanitary Sewer Department performed routine maintenance on multiple lift stations. Improvements are planned on four lift stations along the Caney River Corridor, after upcoming wastewater treatment plant expansion is completed.

38. Spill Response SOP: The Public Works Director reviewed the SOP and ensured supplies were maintained.

39. Spill Response Training: The Public Works Director conducted an annual SOP training for all field crews, fleet maintenance staff, and golf course maintenance staff.

40. On-Site Sanitary Sewer Facilities (OSSF) Inspections: The Water Utilities Director identified, inspected, and shared educational literature with 5 OSSF Owners for the purpose of increasing their knowledge about proper system maintenance and help prevent system failures.

V. 303(D) IMPAIRED WATERBODIES WITHIN MS4

The City of Bartlesville reviewed the latest Water Quality Report from ODEQ and all 303(d) impaired waterbodies within the MS4 boundary are included in the table below:

Table 8: 303(d) Listed Waterbodies within the MS4

Waterbody Name	Total Length (miles)	Portion within MS4%**	WBID	WB Ctgry	Impairment Cause	Impaired Use/ Targeted Sources
Caney River	25.54	**Last < 5%	OK121400020010_10	5c	Fish Bioassessments	*WWAC / Septic Systems, Grazing, Residential
Caney River	46.50	**First < 1%	OK121400010010_10	4a	Enterococcus	*PBCR / Septic Systems, Grazing, Pet Waste
Sand Creek	59.85	**Last < 1%	OK121400040010_00	4a	Enterococcus	*PBCR / Septic Systems, Grazing, Pet Waste
Turkey Creek	5.34	**70%	OK121400020030_00	5c	Macroinvertebrate Bio	*WWAC / source unknown (urban)

** Impaired Use Acronyms: WWAC = Warm Water Aquatic Community PBCR = Primary Body Contact Rec*
***Approximate percentage of 303(d) waterbody area within Bartlesville MS4 boundary*

In order to protect these 303(d) impaired waters and not cause or contribute to a violation of water quality standards, the City of Bartlesville has implemented and maintains the following BMPs to focus on target groups likely to have the most significant stormwater impact on the 303(d) listed waters in order to reduce pollutants and protect the City's stormwater quality.

Table 9: BMPs Specifically Targeting 303(d) Pollutants of Concern

BMP #	BMP Description	How its achieving reduction of 303(d) Pollutants of Concern (POC) (BACTERIA - see targeted sources in Table above)
1	Distribute 100 educational brochures and flyers targeting Citizens (40), Ranchers (5), Pet Owners (48), Septic System Owners (5), & Pond Owners (2)	Educating Owners of Ranches, Pets, & Septic Systems targets the citizens who are most likely to contribute bacterial pollutants to our waterways and educates them on reducing and preventing those sources.
7	Illicit Discharge Detection & Elimination (IDDE) Program	Our IDDE program allows us to receive reports, investigate, and remove bacterial discharge sources such as failing septic system leaks and broken sanitary sewer lines and to target our dry weather inspections in high-priority areas that fall within the watersheds of 303(d) listed waterbodies.
11	Stormwater Educational Display	Our educational display allows us to reduce bacterial pollutants by educating the public about pet waste NOT being a good fertilizer and the importance of disposing of it properly in order to protect the health of our citizens and our area waterways.
13	School Age Education Program	Our educational program allows us to reduce bacterial pollutants by teaching children about the importance of picking up pet waste in their yards and disposing of it properly in order to protect the health of our community and our area waterways.
23	Public Media Article	Our public media article allows us reduce bacterial pollutants by spreading the word about the harmful effects of pet waste and the importance of disposing of it properly in order to protect the health of the citizens and the area waterways.
26	Digital Newsletter Ads	Our digital newsletter ads allows us reduce bacterial pollutants by informing area citizens about the harmful effects of pet waste and the importance of disposing of it properly in order to protect the health of the citizens and the area waterways.
31	Dry Weather Field Screenings	Our DWFS program allows us to identify, investigate, and eliminate bacterial discharges from sources such as failing septic systems and broken sanitary sewer lines.
32	Maintain and Refill Pet Waste Stations	Our pet waste stations allows area citizens to help reduce bacterial pollutants in our waterways by directly removing the harmful waste and disposing of it properly in order to protect the health of the citizens and the area waterways.
34	San Sewer System Inspections targeting high-priority areas	Our high-priority sanitary sewer system inspections allow us to find breaks and leaks that may allow bacterial pollutants to get into our waterways.
35	Sanitary Sewer System Repairs	Our sanitary sewer system repairs eliminate breaks and leaks that can allow bacterial pollutants to get into our area waterways.

BMP #	BMP Description	How its achieving reduction of 303(d) Pollutants of Concern (POC) (BACTERIA - see targeted sources in Table above)
36	Lift Station Inspections targeting high-priority areas	Our high-priority lift station inspections allow us to find potential problems that may allow bacterial pollutants to get into our waterways.
37	Lift Station Maintenance	Our lift-station maintenance helps prevent leaks and other issues that may allow bacterial pollutants to get into our area waterways.
40	Identify & Inspect 5 On-Site Sanitary Sewer Facilities (OSSFs)	Our OSSF inspections allow is to share tips and guidance with OSSF Owners, educating them on proper system maintenance which helps us prevent system failures and bacterial pollutants getting into our area waterways.

Non-Stormwater Discharges (OKR04 Part IV.A.1.c)

The City of Bartlesville has examined potential non-stormwater discharges within its MS4 that could likely contribute significant pollutants to 303(d) impaired waters. The following potential discharge sources have been identified within the MS4:

Source Identifier	Location	303(d) Pollutants	Notes:
46- Grazing in Riparian or Shoreline Zones	Sand Creek, Caney South of Sand Creek	Bacteria	Educational Brochures targeting Ranchers
85- Municipal Point Source Discharge (at WWTP)	Caney South of Sand Creek	Bacteria	Permitted thru ODEQ; constant monitoring, testing, inspecting, and improving of system
92- On-Site Sewer Treatment Facilities	Sand Creek, Caney South of Sand Creek	Bacteria	OSSF Inspections and Educational Materials
111- Residential Districts	Sand Creek, Caney South of Sand Creek	Bacteria	Educational Posts, Articles, and Literature
133- Pet Waste	Residential Yards throughout MS4	Bacteria	Educational Program and Pet Waste Station BMPs in place

Inspecting Illicit Discharges in Priority Areas (OKR04 Part IV.A.1.d)

The City of Bartlesville has located those areas most likely to have illicit discharges and it conducts inspections based on the priority areas within the watersheds of the 303(d) listed waterbodies. Details of the inspection and enforcement program are presented in Section 3.3 of the Storm Water Management Plan (SWMP). The City of Bartlesville has also prepared a Standard Operating Procedure (SOP) flowchart document containing the procedures to be followed for these types of inspections. The SOP is included in Appendix G of the SWMP.

Operation & Maintenance Procedures for Structural & Non-Structural Controls (OKR04 IV.A.1.e**)**

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

Summary of O&M Procedures:

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.
Maintenance of drainage system and street cleaning	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.
Ordinance review and inspection enforcement	Annual inspections; maintenance requirement as needed and regulation review.	Inspections using city staff. Maintenance depending on factors	Cooperation and participation.

(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.

New Flood Management Project Reviews to Ensure 303(d) POC Protection (OKR04 Part IV.A.1.f) For each new flood management project discharging to a 303(d) listed waterbody, the MS4 reviews the plans to ensure the project has adequately assessed the pollutants of concern and, referring to the EPA's BMP menu, determines if any additional water quality protection devices or practices might be recommended for managing the identified pollutants.

BMP Selection (OKR04 Part IV.A.1.g)

The City of Bartlesville MS4 has chosen BMPs from the EPA's BMP menu and other sources, for the purpose of managing identified pollutants in the MS4's discharges. BMPs are selected based on their ability to meet at least one, and preferably several, of the MCM requirements. Many of the selected BMPs focus on target groups likely to have the most significant stormwater impact on the 303(d) listed waters in order to reduce pollutants of concern and protect the City's stormwater quality.

BMPs Addressing Specific Bacteria Categories in 303(d)-Listed Waters (OKR04 Part IV.A.1.h)

The following list identifies the BMPs chosen to address the five (5) categories of bacteria under each associated minimum control measure under Part V.(C);

(i)	sanitary sewer systems	(see Bacteria Category 1 Section below)
(ii)	on-site sewage facilities	(see Bacteria Category 2 Section below)
(iii)	illicit discharge and dumping	(see Bacteria Category 3 Section below)
(iv)	animal sources	(see Bacteria Category 4 Section below)
(v)	residential education	(see Bacteria Category 5 Section below)

Bacteria Category 1 - Sanitary Sewer Systems (OKR04 Part IV.A.1.h.i)

Sub-Category in OKR04	**Selected BMP** (BMP #)	**Implementation Notes**
(1) Identify improvements to sanitary sewer system	(34) Inspection of sewer lines	Min. 400 feet annually by Sewer Dept Field Crew
(1) Make improvements to sanitary sewer system	(35) Repair and replace breaks in sewer lines and appurtenances	Sewer Dept Field Crew will make repairs as discovered with funds from annual budget
(2) Identify lift station inadequacies	(36) Inspect lift stations in bacteria 303d watersheds	Annual inspections done by Sewer Dept Field Crew
(2) Correct lift station inadequacies	(37) Perform lift station maintenance	Annual maintenance done by Sewer Dept Field Crew
(3) Make improvements on reporting of violations	(2) Annual Field Staff IDDE training	Annual field employees training done by City Stormwater Inspector
(4) Strengthen controls	(38) Review spill response SOP, equipment, and supplies - update as needed	Spill Response SOP reviewed annually by Public Works Director
(4) Strengthen controls	(39) Conduct employee training on spill response SOP	Spill Response Training done annually by Public Works Director

Bacteria Category 2 - On-Site Sewage Facilities (OSSFs) (OKR04 Part IV.A.1.h.ii)

Sub-Category in OKR04	**Selected BMP** (BMP #)	**Implementation Notes**
(1) Identify & address failing systems	(40) Inspect OSSFs for evidence of bypasses.	5 annually (min.) by Utilities Director
(2) Address inadequate maintenance of OSSFs	(1) Distribute 5 maintenance and inspection brochures and provide guidance to OSSF Owners.	Annually by Utilities Director

Bacteria Category 3 - Illicit Discharges and Dumping (OKR04 Part IV.A.1.h.iii)

Sub-Category in OKR04	**Selected BMP** (BMP #)	**Implementation Notes**
Additional effort to reduce waste sources of bacteria	(2) Train all field personnel on illicit discharge detection and elimination	Annually by City Stormwater Inspector

Bacteria Category 4 - Animal Sources (OKR04 Part IV.A.1.h.iv)

Sub-Category in OKR04	**Selected BMP** (BMP #)	**Implementation Notes**
Expand existing program to identify and target additional potential animal sources	(1,23) Distribute 45 educational brochures and 1 social media post regarding residential pet waste removal	Annually by Stormwater Manager
Expand existing program to identify and target additional potential animal sources	(1) Distribute 5 brochures on rangeland grazing and pasture management to area farm & ranch stores.	Annually by Stormwater Inspector
Expand existing program to identify and target additional potential animal sources	(32) Install and maintain “pet-waste” stations and signage in MS4-owned parks.	By Parks Dept Mgr

Bacteria Category 5 - Resident Education Programs (OKR04 Part IV.A.1.h.v)

Sub-Category in OKR04	Selected BMP (BMP #)	Implementation Notes
Public education regarding bacteria discharging from residential sites either directly or during runoff events	(26, 11, 1) Provide 2 Digital Ads, 1 public display, and distribute 40 educational brochures	Annually by Stormwater Manager
Public & area business education about preventing fats, oils and grease from clogging sanitary sewer lines and resulting in overflows	(1,12) Distribute water quality protection brochures to Public & 3 educational brochures to businesses about fats, oils, and grease best mgmt. practices	Annually by Stormwater Manager
Public education regarding decorative pond maintenance	(1) Distribute 5 educational brochures about pond maintenance to pond owners	Annually by Stormwater Manager
Public education regarding the importance of pet waste pick up	(23, 11, 1) Post 1 Social Media Ad and distribute 45 educational brochures	Annually by Stormwater Manager

VI. TMDLs WITHIN MS4

Table 10 contains a list of waterbodies having one (1) or more completed TMDLs within the City's MS4** As of the 2022 ODEQ Water Quality Report TMDL documentation, the City of Bartlesville MS4 has no TMDL Waste Load Allocations (WLAs) assigned to it:

Table 10: Waterbodies within the MS4 Having Completed TMDLs

Waterbody Name	Waterbody Id. (WBID)	MS4 Percent *	TMDL Pollutants of Concern	TMDL Codes
Caney River	OK121400010010_10	< 1%	Enterococcus, Turbidity	39216**
Sand Creek	OK121400040010_00	< 1%	Enterococcus, Escherichia coli	37064**

** Approximate percentage of the TMDL watershed containing Bartlesville's MS4 area. Both are located in the southwest corner of the MS4.*

*** The final TMDL document states that there are no permitted MS4s within the study area, so no TMDL WLAs were assigned to any stormwater permittee in the TMDL.*

The TMDLs listed in the above table were both completed prior to late 2013. TMDLs in Oklahoma that were completed prior to late 2013 require that ODEQ notify the MS4 to begin initiating any compliance actions specified in the TMDL document.

Table 11: TMDL BMPs and Monitoring To Be Used For the Next Reporting Cycle

BMP #	BMP Description	Implementation Schedule
	No TMDL obligations at this time	

VII. AGREEMENTS WITH OTHER ENTITIES:

The City of Bartlesville is a member of INCOG's Green Country Stormwater Alliance (GCSA). INCOG provides a number of technical support services to its members, most of which are not actual permit requirements. The INCOG GCSA services that are considered part of the City of Bartlesville BMPs include:

1. Employee Training workshops on all OKR04-required employee-training topics.
2. Educational Materials and Documents are provided throughout the year.
3. Maintain the GCSA regional website for all GCSA members.
4. Provide updated MS4 Map
5. Provide technical assistance and guidance throughout the year.

The City of Bartlesville also relies upon the Oklahoma Conservation Commission's (OCC's) Blue Thumb program to provide the following services, which are considered BMPs by the City of Bartlesville:

1. Volunteer stream monitoring of one waterbody within the MS4; and
2. Elementary School in-class educational opportunities.

Appendix A of this AR contains the letters of support from both INCOG and OCC concerning their commitment to providing the services outlined above during the present AR period of record.

Other entities that provide assistance with public education and information, additional employee training, volunteer activities, household clean-up events, public oversite, and additional input and advice are:

- Washington County Emergency Response
- EPA/ODEQ
- OSU Extension Service
- Citizen Advisory Panel
- Hazard Mitigation Committee

VIII. MS4 BOUNDARY:

See Appendix B - *(Map updated to reflect 2022 Integrated Report)*

APPENDIX A: Letters of Commitment from Other Governmental Entities

INCOG Regional Partners — Regional Solutions
2 West Second Street Suite 800 | Tulsa, OK 74103 | 918.584.7526 | www.INCOG.org

November 17, 2020

INCOG Services To Green Country Stormwater Alliance (GCSA) Members

The following is a summary of INCOG services performed annually on behalf of its GCSA Members. The table identifies services as either general program support activities or Best Management Practices (BMPs) falling under one or more of OKR04's Minimum Control Measures (MCMs). This letter fulfills OKR04's Annual Report requirement in Part VI.C.1.i to provide a "*written agreement*" with "*another government entity*" if the permittee is relying on them "*to satisfy some of your permit obligations*". A copy of this agreement must also be kept with the MS4's SWMP per OKR04 Part V.A.5.

INCOG Activity	BMP or Support	Support Service Description
Co-host water quality and stormwater conferences	Support	Work with other agencies as co-host. Assist with conference planning, and give presentations on stormwater topics.
Employee training workshops and virtual meetings	BMP	Organize and hold workshops and online virtual training on OKR04-required training topics and MS4 technical priorities.
Education materials	Support	Develop, acquire and make available to GCSA members. Post downloadable files on GCSA website.
Technical assistance	Support	Research technical and permit issues important to GCSA members. Report results via fact sheets, news bulletins and in workshops.
GCSA website	BMP	Annual updates of website materials on priority issues.
Guidance, Templates, Plans	Support	Prepare technical guidance and templates for member support. Research and develop TMDL-related Plans and guidance.
Education outreach documents	Support	Prepare Workbooks, News Bulletins, Announcements, Fact Sheets, White Papers, and Newsletters on important stormwater topics.
Individual MS4 assistance	Support	Upon request, meet with MS4 staff, city councils, county commissions and committees on OKR04 and local issues.
Mapping and field inspections	Support	Prepare regional and MS4 maps and forms, train members on equipment use and sampling procedures, assist with inspections.
OKR04 permit compliance	Support	Assist MS4s with SWMPs, NOIs, SOPs, Annual Reports, QA, permit requirements, DEQ Audits and enforcement issues.

OKR04 Part VII.H.4 Required Certification Statement:
I certify under penalty of law 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.

INCOG Executive Director

11/17/2020
Date

APPENDIX A: Cont'd

Oklahoma Conservation Commission
Blue Thumb Water Quality Education Program
2800 N. Lincoln Blvd, Suite 200
Oklahoma City, Oklahoma 73105
405-522-4735
http://www.bluethumbok.com

March 2, 2023

Municipalities with OKR04 Permit Requirements

To Whom It May Concern:

The Oklahoma Conservation Commission's Blue Thumb Program has two primary responsibilities: 1) to support Blue Thumb volunteers who monitor local streams; and 2) to educate Oklahomans about the management of non-point source pollution. The Blue Thumb program can offer the following services to support your program:

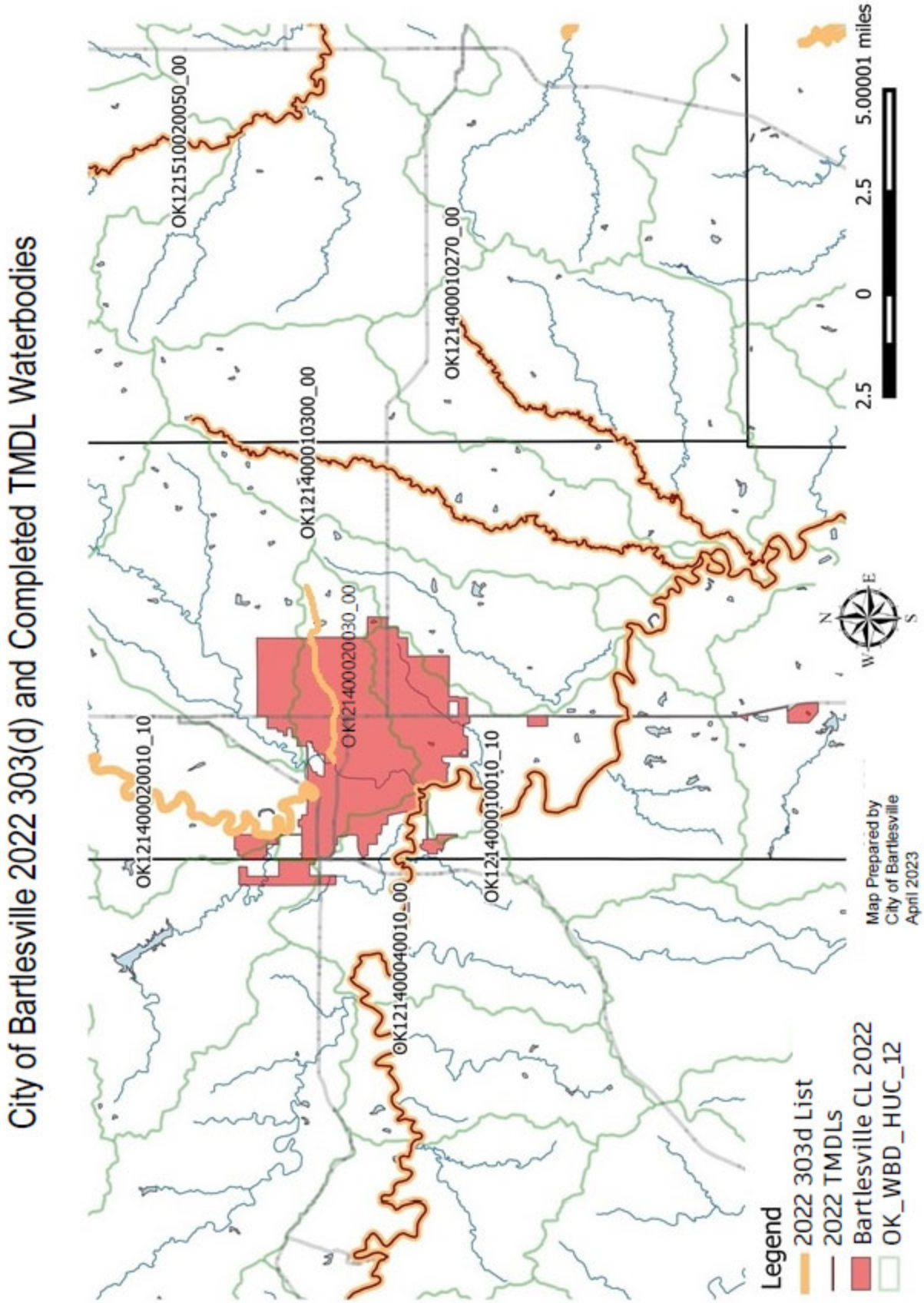
1. Provide education about water quality and stormwater management.
2. Assist in the development of educational materials.
3. Provide educational information, instructional videos and a calendar of events through our website.
4. Train city employees and local volunteers to perform stream monitoring.
5. Help organize local volunteers to do a storm drain marking campaign. (We do not provide materials).
6. Provide tools, materials, and staff to engage in educational outreach to schools and other groups or organizations in your community.

We hope these services can help you meet requirements for your OKR04 permit and we look forward to working with you.

Sincerely,

Rebecca Bond
Blue Thumb Coordinator
Oklahoma Conservation Commission

APPENDIX B: Map of MS4 Boundary



2023 Blue Thumb Data Turkey Creek OK121400-02-0030F LAT 36.7478, LONG -95.9369	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Sampling Date	1/28/2023	1/28/2023	1/28/2023	1/28/2023	5/26/2023	6/24/2023	7/19/2023	8/14/2023	9/23/2023	10/26/2023	11/29/2023	12/26/2023
Sampling Time	12:00 PM	1:15 PM	11:15 AM	2:00 PM	1:30 PM	11:15 AM	10:15 AM	2:00 PM	10:00 AM	2:30 PM	1:15 PM	1:45 PM
Water Clarity / Secchi Depth (Meters)	1.1	1	1	0.3	1.1	0.7	1	0.9	0.85	0.7	1.1	1
Secchi Disk on Bottom?	Yes	null	null	null	Yes	null	null	null	null	null	null	null
Air Temperature (°F)	55°F	39°F	59°F	70°F	81°F	82°F	81°F	81°F	75°F	79°F	63°F	45°F
Water Temperature (°F)	43°F	37°F	63°F	63°F	75°F	79°F	81°F	82°F	72°F	72°F	43°F	45°F
Floating Detritus?	null	null	null	Yes	null	null	null	null	Yes	Yes	Yes	null
Significant Algae?	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
Habitat alternation?	No	No	No	No	Yes	No	No	No	No	No	No	No
Trash	Low	Medium	Medium	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Comments and Restock Needs:	Algae on rocks in pools and runs. Small fish sighted.	Algae on rocks in pools and runs.	Small fish observed in pools. Algae on rocks in runs and shallow pools.	Secci measrmnt was suspect due to water surface debris and turbulence caused by lowering the Secci disk. Extensive algae on rocks and floating mats. Extensive floating tree seeds in pools. Small fish and frogs observed.	Small and medium sized fish observed. A large tree had fallen across the stream bed just downstream of the sample point. Only two bacteria plates could be read - the third plate was apparently defective.	Water murky in pools. Numerous small fish and two water snakes observed.	Numerous small fish sighted. Elevated flow due to recent rains.	Flow rate elevated due to recent rains. Numerous small fish observed.	Water slightly murky due to runoff from recent rains. Leaf litter floating on pools. Small fish and frogs observed.	Leaf litter on water surface and bottom. Water murky. Small fish observed.	Leaf litter floating and on stream bottom. Small fish and frogs sighted.	
DO Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range	High Range
DO High#1 (mg/L)	12	14	7	9	9	5	5	8	4	5	4	11
DO High#2 (mg/L)	11	14	7	10	9	5	5	8	4	5	5	12
% Oxygen Saturation	86	98	74	95	109	63	64	104	47	58	33	90
pH #1	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.25	7.5
pH #2	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.25	7.5
Nitrate #1 (mg/L)	0	0	0	0	0	0	0.5	0	0	0	0	0.5
Nitrate #2 (mg/L)	0	0	0	0	0	0	0.5	0	0	0	0	0.5
Nitrite #1 (mg/L)	0	0	0	0	0	0	0	0	0	0	0	0
Nitrite #2 (mg/L)	0	0	0	0	0	0	0	0	0	0	0	0
Amonia Nitrogen Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range
Ammonia Nitrogen Low #1 Final	0	0	0	0	0	0.1	0	0	0	0	0	0
Ammonia Nitrogen Low #2 Final	0	0	0	0	0	0.1	0	0	0	0	0	0
Orthophosphate Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range
Orthophosphate Low#1 (mg/L) Final	0.013	0.02	0.007	0.013	0.013	0.13	0.027	0.04	0.033	0.04	0.04	0.02
Orthophosphate Low#2 (mg/L) Final	0.013	0.02	0.007	0.013	0.02	0.13	0.033	0.04	0.033	0.04	0.027	0.02
Chloride Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range	Low Range
Chloride Low#1 (mg/L) Final	40	45	40	65	35	40	25	15	25	15	25	20
Chloride Low#2 (mg/L) Final	40	40	45	65	35	40	25	15	25	15	25	20
average_ecoli_CFU	NaN	NaN	NaN	NaN	NaN	1300.00	1733.33	1066.67	6266.67	NaN	NaN	NaN
Average_Total_Coliform	NaN	NaN	NaN	NaN	NaN	22966	NaN	24400	NaN	NaN	NaN	NaN