

City of Bartlett
Shelby County, Tennessee

Stormwater Management Plan



Prepared by:

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September 1, 2024

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TABLE OF CONTENTS

SECTION 1 - PURPOSE, GOALS, AND POLICIES

PLAN BACKGROUND	3
Purpose	3
Authority	3
GOALS AND POLICIES	4
Policies Addressing Physical Characteristics	4
Policies Addressing Institutional Characteristics	7

SECTION 2 - WATERSHED DESCRIPTION

WATERSHED DESCRIPTION	9
Loosahatchie River Watershed	9
Wolf River Watershed	10
FIGURE 2.1 DRAINAGE AREA MAP	13

SECTION 3 - COVERAGE UNDER THE NPDES SMALL MS4 GENERAL PERMIT

CURRENT NPDES PERMIT	15
COVERAGE AREA	15
FIGURE 3.1 CITY OF BARTLETT JURISDICTIONAL BOUNDARIES	16

SECTION 4 - NOTICE OF INTENT

NOTICE OF INTENT REQUIREMENTS	17
APPROVED NOTICE OF COVERAGE	17
FIGURE 4.1 CITY OF BARTLETT NOTICE OF COVERAGE	18

SECTION 5 - SPECIAL CONDITIONS

DISCHARGES TO WATERBODIES WITH UNAVAILABLE PARAMETERS	19
303(d) Listed Streams.....	19
Discharges into Waterbodies with EPA Approved or Established TMDLs	19
Table 5.1, 303(d) Listed Waters within Bartlett MS4.....	19
Discharges to Waterbodies with Unavailable Parameters without TMDLs.	20
CO-PERMITTEE AND COORDINATED PROGRAMS	20

SECTION 6 - STORMWATER MANAGEMENT PROGRAM

REQUIREMENTS	21
Table 6.1, Minimum Control Measures Implementation Timelines	22
MINIMUM CONTROL MEASURES.....	23
Public Education and Outreach on Stormwater Impacts	23
Public Involvement/Participation	28
Illicit Discharge Detection and Elimination	30
Construction Site Stormwater Runoff Control	32
Post-Construction/Permanent Storm Water Management in New Development and Redevelopment	34
Pollution Prevention and Good Housekeeping	36
QUALIFYING TRIBES, STATE OR LOCAL PROGRAM (QLP)	38
STORMWATER MANAGEMENT PROGRAM MODIFICATION	38
ENFORCEMENT	38
STORMWATER MONITORING AND PROGRAM EVALUATION	40
LEGAL AUTHORITY	43

SECTION 7 – ANNUAL REPORT

ANNUAL REPORTING PERIOD, DUE DATE AND SIGNATORY REQUIREMENT	45
ANNUAL REPORTING REQUIREMENT.....	45

SECTION 8 – RETENTION, ACCESSIBILITY AND SUBMISSION OF RECORDS

RECORDS RETENTION	47
ELECTRONIC SUBMISSION OF DOCUMENTS.....	47

APPENDIX

1 Stormwater Management Program	1-1
2 Record of Changes	2-1

PLAN BACKGROUND

The City of Bartlett, like many areas in the United States, has and continues to experience impacts to its natural resources due to increased urbanization. These impacts are especially evident with its surface water resources. The City is an established community with infill and redevelopment. The City has an area of nearly 32 square miles and a population of nearly 57,000 residents, making the City of Bartlett the 14th largest city in the state. There is over 70 miles of waters designated as *waters of the state* within the jurisdictional boundaries of the City of Bartlett.

With this growth and revitalization comes an increased need to protect and enhance the natural water resources throughout the City. Urbanization affects these water resources by increasing the rate and volume of stormwater runoff. These increases, if uncontrolled, may lead to a degradation of the natural drainage system. The increased soil erosion and sedimentation from construction sites, along with more impervious surfaces, can combine to cause increased stormwater related problems commonly experienced as flooding, storm sewer back-up, and deteriorated water quality.

Purpose

The City of Bartlett recognizes the need for a more proactive and comprehensive approach to manage stormwater runoff. The purposes of this plan are:

1. To reduce the discharge of pollutants to the maximum extent practicable.
2. To protect water quality.
3. To satisfy the appropriate water quality requirements of the Federal Clean Water Act of 1972.
4. To implement the requirements of the Tennessee Department of Environment and Conservation National Pollution Discharge Elimination System Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4).
5. To minimize the potential for flooding.

This Stormwater Management Plan (SWMP or the Plan) establishes the framework and goals that will direct stormwater management for the City of Bartlett. Ultimately, the Plan will provide the City of Bartlett with effective rules, regulations, and projects that will reduce the potential for stormwater damage to life, public health, safety, property, and the environment.

Authority

The City of Bartlett's SWMP is established as required by section four of the National Pollutant Discharge Elimination System (NPDES) General Permit for Small Municipal Separate Storm Sewer Systems (MS4). Assessment of civil penalties for ordinance violations is authorized pursuant to TCA 68-221-1106. Other documents become part of the SWMP by reference. The Director for the Department of Engineering and Utilities and, in the event of the Director's absence or a vacancy in the office of the Director, the Deputy Director, is responsible for the overall management of the SWMP. Day-to-day management of the SWMP is the responsibility of the City's Stormwater Coordinator. Other department directors shall be responsible for the implementation of policies and procedures contained in the SWMP within their departments.

GOALS and POLICIES

The City of Bartlett Stormwater Management Plan recognizes the need to reduce the potential for reoccurring flood and water quality impacts within the City. It also recognizes the need to address the likelihood of increasing flood risk and flood damage as the City continues to develop, and to minimize further environmental degradation associated with urbanization. The following goals address those needs:

- **Reduce the existing potential for stormwater damage to public health, safety, life, property, and the environment.**
- **Minimize future increase in stormwater damage within the City of Bartlett and in adjacent jurisdictions affected by City of Bartlett drainage.**
- **Protect and enhance the quality, quantity, and availability of surface water resources.**
- **Preserve and enhance existing aquatic and riparian environments and encourage restoration of degraded areas.**
- **Control sediment and erosion in and from drainage ways, developments, and construction sites.**
- **Establish comprehensive basin plans within each watershed that quantify, plan for, and manage stormwater flows within and among the jurisdictions in those watersheds.**
- **Promote equitable, acceptable, and legal measures for stormwater management.**

Policies developed to implement the SWMP must respond to the specific characteristics that have historically contributed to stormwater quantity and quality issues in the City of Bartlett. The following outlines the key physical and institutional characteristics affecting the City's stormwater management and presents the policies developed to address these characteristics. These policies will serve as the mechanisms for attaining the SWMP goals and are implemented through a combination of the City of Bartlett's stormwater ordinance, the City of Bartlett's subdivision ordinance and the City of Bartlett's Stormwater Management Program ([Appendix 1](#)).

Policies Addressing Physical Characteristics

Site Runoff Control Traditional site runoff control techniques involving grading and piping to transport stormwater from a site accomplish site drainage only at the expense of downstream drainage ways and property owners. Runoff control plans for retaining much of the excess water onsite can be developed, but only for locations where they would minimally interfere with developed land uses. Such plans usually consist of site grading and piping, but may include innovative onsite runoff control techniques including infiltration swales, pervious surfaces, French Drains, rain gardens, or green roofs. Whether land is developed for residential, commercial, or industrial use, site runoff control is necessary to prevent flood damage and reduce adverse water quality impacts in downstream areas.

- 1. The City of Bartlett Stormwater Management Plan requires appropriate and adequate provision for site runoff control consistent with watershed plans, the NPDES General Permit for Small MS4s and the Tennessee Construction General Permit wherever the land is developed for human activity.**

This policy reduces the potential for future onsite flood damage and minimizes the effect stormwater may have on human activities and the natural environment.

Storage Stream and river channels are generally adequate to convey runoff from smaller, frequent storms. Larger, less frequent storms require the floodplains for temporary storage and additional conveyance capacity. In developed areas, frequent storms require historic floodplain areas to accommodate increased runoff rates and to compensate for watershed infiltration and storage capacity lost with development. Runoff from larger storms accordingly extends beyond normal floodplain limits.

The carrying capacity of drainage ways can be improved and increased, however the financial and environmental cost of increasing channel conveyance capacity throughout the City is extremely high. Channel improvements significantly alter both aquatic and riparian environments and potentially increase stream erosion. Furthermore, efforts to increase conveyance capacity within the City would be unproductive if downstream capacity were not similarly increased. It is recognized that under some circumstances, increased conveyance is the only feasible stormwater management alternative, but feasible storage is always preferable to conveyance.

2. The City of Bartlett Stormwater Management Plan recognizes the inherent advantages of stormwater infiltration or storage and encourages the use of these techniques where appropriate in preference to stormwater conveyance.

This policy:

- Reduces the potential for downstream flood damage.
- Minimizes increases in stormwater runoff rates.
- Maintains the adequacy of existing conveyance by not increasing the flows to be conveyed.
- Promotes stormwater infiltration and evaporation as a means for reducing the volume of runoff.
- Maintains the environmental integrity of stream channels by avoiding the need for channel modifications.
- Reduces the potential impact of development on stream erosion rates by limiting peak flows.
- Reduces the potential impact of non-point sources of pollution on downstream waters.

Watershed Focus The natural drainage system of creeks and rivers developed a capacity for conveying stormwater that is balanced with these watersheds characteristics. Land development practices typically disrupt the natural balance by reducing or eliminating the naturally occurring storage, reducing the infiltration of stormwater into the ground, and generally increasing the velocity and quantity, while decreasing the quality of runoff. Receiving streams and rivers do not naturally have capacity for increased flows. Downstream flooding is an expected consequence of land development unless each site runoff control plan is developed with full consideration of downstream capacities and flooding potential.

3. The City of Bartlett Stormwater Management Plan requires design and evaluation of each site runoff control plan to be consistent with watershed capacities and the requirements contained in the NPDES General Permit for Small MS4s.

This policy reduces the potential of offsite and regional flood damage as well as the impact that runoff has on the quality of the waters in the receiving stream.

Floodplain Management The majority of flood damages occur to structures adjacent to streams in the floodplain or floodway. Construction and development activities in the floodplain frequently disrupt riparian environments. In the floodway, such activity often increases stream erosion,

destroys aquatic habitat, and restricts flood flows, thus increasing the depth of upstream flooding. Floodplain and floodway development decreases natural overbank storage, thereby increasing peak flows in downstream areas.

However, some uses of the floodplain are necessary and desirable for the human and natural environment. Essential urban utilities, such as major arterial roadways and sanitary trunk sewers, must necessarily traverse floodplains and floodways. In such instances, mitigating measures can be employed to offset impacts. Other uses such as public recreation facilities or natural areas may be neutral to floodplain conveyance and storage or, in the case of mitigating wetlands, may enhance storage. While it is desirable to restrict or control the type of development that occurs in the floodplain, it is neither desirable nor necessary to prohibit all types of development.

- 4. The City of Bartlett Stormwater Management Plan restricts future development in the floodplain to facilities that will not adversely affect flood damage potential or adversely impact riparian environments. Within the floodway, development will be prohibited unless it involves facilities that enhance flood protection and/or water quality.**

This policy reduces the potential for future flood damage and maintains the integrity of stream channels and preserve riparian environments.

Wetland Protection While wetlands are not a significant portion of the natural landscape in the City of Bartlett, the natural storage they provide can play an important role in determining the conveyance capacity of existing drainage ways. By filling or encroaching upon wetlands, storage volume is lost and downstream reaches flood in an effort to maintain the natural watershed balance. Wetlands promote infiltration, which reduces runoff volume and recharges groundwater supplies. They also retain the pollutants contained in runoff, protect and improve water quality, and provide habitat for numerous species.

- 5. The City of Bartlett Stormwater Management Plan requires preservation of wetlands to maintain natural flood control and environmental benefits.**

This policy protects the natural watershed storage capacity, maintains the integrity of existing drainage ways, and provides water quality and habitat protection.

Environmental Protection Certain environmental protection measures complement good stormwater management. For example, effective erosion prevention and sediment control is a significant non-point source pollution control and protection measure for aquatic and riparian habitats. It is also an effective way of preventing excessive channel obstruction due to sedimentation. Maintaining natural stream channel cross-section alignment is important in promoting a healthy riparian environment. It is also important to maintain the natural stream length, storage capacity, and conveyance characteristics of the channel.

- 6. The City of Bartlett Stormwater Management Plan incorporates water quality and habitat protection measures in all stormwater management activities within the City of Bartlett.**

This policy enhances our ability to protect the environmental integrity of the watershed and allows the City of Bartlett to meet NPDES Phase II requirements.

Programmed Maintenance Many existing municipal stormwater management facilities in the City of Bartlett function at their design standard or potential. Culverts and drains are periodically cleared of vegetation, debris, and/or sediment that can choke these structures, leading to

localized flooding or decreases in the quality of stormwater runoff. Detention and retention basins are routinely inspected to ensure they are not over burdened by silt and debris.

However, the status of privately owned facilities is unknown. If not properly maintained, these facilities can actually increase the potential for flooding and poor water quality. Furthermore, debris creates a risk for damaging sewer lines crossing streams, posing a significant environmental risk.

7. The City of Bartlett Stormwater Management Plan requires regular, planned maintenance of stormwater management facilities, whether publicly or privately owned.

This policy reduces the potential for flood damage and promotes or maintains the integrity of stream channels, providing water quality benefits.

Policies Addressing Institutional Characteristics

Source Control Onsite mismanagement of stormwater can exacerbate problems as the stormwater moves downstream. Problems are usually least severe and most readily controlled by structural means near the source of the runoff. This is also the case for stormwater quality concerns. If the stormwater and the pollutants it carries are controlled near their origin, then the area affected is reduced. Often source control of stormwater is more effective and less costly than downstream stormwater remediation.

8. The City of Bartlett Stormwater Management Plan encourages control of stormwater quantity and quality at the most site-specific level as possible, but only where long-term maintenance is fully provided.

This policy reduces the potential for flood damage and erosion from development, aids in the prevention of non-point source pollution, and minimizes or eliminates the potential of runoff pollution.

Enforcement Stormwater management policies and regulations can only be effective if they are implemented routinely and consistently. Since implementation must take place at many locations over long periods of time, enforcement of the regulation is difficult and often overlooked in favor of more immediate issues. Inconsistent enforcement of stormwater regulations limits their implementation and contributes substantially to the continued growth of the extent and severity of flood damages and environmental degradation.

9. The City of Bartlett Stormwater Management Plan requires strict compliance and enforcement of the stormwater management plan policies and their implementing regulations.

This policy minimizes opportunities to circumvent the SWMP and enhances our ability to achieve all SWMP goals.

Appropriate Technology The technology available to support stormwater management ranges from the simple to the complex. Simple technologies are more likely to be employed since they are widely used and easily applied. Simple technologies are often easier and less costly to maintain, but they can leave little flexibility for dealing with unusual or complex realities. Applying simple technologies can result in inappropriate and ineffective management if the problems are more complex than the solutions used. Conversely, sophisticated solutions can postpone action and increase the cost of stormwater management.

10. The City of Bartlett Stormwater Management Plan allows simple technologies wherever appropriate and realistic, but demands use of more sophisticated techniques where necessary to ensure the adequacy of stormwater controls.

This policy encourages the use of appropriate technology, thereby reducing the risk of inappropriate stormwater management activities. This in turn maximizes the effectiveness of the stormwater management activities undertaken to achieve SWMP goals.

Cost Effectiveness The cost of stormwater management projects must be justified in terms of the existing and potential flood damages or environmental harm avoided. Concentrating resources on cost-effective stormwater management activities allows implementation of more control within a limited budget. Cost-effectiveness may be judged only by definitions consistent with all stormwater management goals, and hence must include life cycle costs, environmental costs, benefits, and both local and regional effects.

11. The City of Bartlett Stormwater Management Plan encourages cost effective methods of achieving stormwater management goals.

This policy provides for a reduction in overall cost, allows funding of more facets of the SWMP, and increases the SWMP's effectiveness in achieving all goals.

Fiscal Responsibility Recommendations of the SWMP will be carried out only if their costs are clearly established and understood, and a source of revenue to offset those costs is available.

12. The City of Bartlett Stormwater Management Plan requires the estimation of costs of stormwater management recommendations and identification of appropriate revenue sources before their adoption.

This policy enhances the credibility and acceptability of the SWMP, thereby encouraging its implementation and the achievement of all its goals.

WATERSHED DESCRIPTION

The City of Bartlett has two major waterways that collect runoff from its jurisdiction. The watersheds for these rivers bisect the city east to west with the northern watershed flowing to the **Loosahatchie River** and the southern watershed flowing to the **Wolf River**. Both of these waterways are part of the **Mississippi River** watershed. Other active waterways include Howard Creek, Raner Creek, Buckhead Creek, Oliver Creek, Harrington Creek and the unnamed tributary to Fletcher Creek, as well as, various smaller creeks, streams, and tributaries.

Eighteen drainage basins are identified within the jurisdictional boundaries of the City of Bartlett ([Figure 2.1](#)). With terrain varying from flat to hilly, each basin displays its own character. The Loosahatchie River watershed is subdivided into seven basins. The Wolf River watershed is divided into two major basins that are further subdivided into a total of eleven smaller basins or laterals.

1. Loosahatchie River Watershed

- a. Basin 1 is the **Kate** basin. Kate basin is located in the most north-western portion of the City between Austin Peay and Singleton Highways. Consisting of unnamed tributaries to the Loosahatchie River, the basin drains an area of nearly 2050 acres with over 430 acres within the City of Bartlett.
- b. Basin 2 **Howard Creek**. The headwaters of Howard Creek are located in the Daybreak subdivision. It flows through residential and undeveloped portions of the City, including the Quail Ridge Golf Course, exiting the City of Bartlett's jurisdiction at Billy Maher Road south of Ravencrest subdivision. After a short meander through pasture land in Shelby County, it re-enters the City at Old Brownsville Road and continues to flow northward into the Loosahatchie River. Howard Creek is slightly more than seven miles long and drains an area of over 2300 acres with more than 1800 acres within the City of Bartlett.
- c. Basin 3 is **Raner Creek**. The headwaters of Raner Creek are located in the Dalton Downs subdivision. It flows through residential and undeveloped portions of the City, including farmland, before exiting the City near Rockyford subdivision and continuing on to the Loosahatchie River. Raner Creek is slightly less than four miles long and drains an area of nearly 1400 acres with slightly more than 1300 acres within the City of Bartlett.
- d. Basin 4 is the **Rockyford** basin. Although not designated as a creek, the Rockyford basin consists of unnamed tributaries to the Loosahatchie River and drains an area beginning near the northern terminus of Luther Road, flowing through rural residential and farm land before exiting the City near Rockyford subdivision. The Rockyford basin drains an area of over 600 acres with approximately 330 acres within the City of Bartlett.
- e. Basin 5 is the **Sandeman** basin. The Sandeman basin is composed of unnamed tributaries to the Loosahatchie River that drains an area beginning near Dalton Downs subdivision, flowing through residential, rural residential and farm land before exiting the City near Walker Farms subdivision and continuing to the Loosahatchie River.

SECTION 2 - WATERSHED DESCRIPTION

The Sandeman basin drains an area of over 1350 acres with approximately 860 acres within the City of Bartlett.

- f. Basin 6 is **Buckhead Creek**. The headwaters of Buckhead Creek begin in the Davies Plantation area of the City. It flows through rural residential areas and rural open areas before leaving the city at Old Brownsville Road and continuing on to the Loosahatchie River. Buckhead Creek and its associated tributaries are nearly 15 miles long and drain an area of slightly more than 3800 acres with nearly 3000 acres within the City of Bartlett.
 - g. Basin 7 and the last basin of the Loosahatchie watershed is **Oliver Creek**. With its headwaters also beginning in the Davies Plantation area, Oliver Creek flows through rural residential areas before leaving the City at the City's boundary with the City of Lakeland near Davies Manor Drive. As it continues to flow north, it then forms the City's boundary with the City of Lakeland at Memphis-Arlington Road. It exits the City north of Oliver Grove Subdivision at the CXS railroad, entering Shelby County as it continues to the Loosahatchie River. The Oliver Creek basin drains an area of nearly 3600 acres with approximately 1500 acres within the City of Bartlett's jurisdiction.
2. The **Wolf River Watershed** is divided into two major watersheds, the Harrington Creek and Fletcher Creek watersheds, which are further divided into a total of eleven sub-basins.
- a. **Harrington Creek** watershed. The Harrington Creek watershed has its headwaters outside the City of Bartlett, entering the City from the north through Nesbit Park. Flowing through forested, residential and commercial areas of the City, it exits the City near Freeman Park. With nearly 17 miles of waterways, the Harrington Creek watershed is divided into four sub-basins.
 - 1) Basin 1 is **Lateral A & B**, tributaries to Harrington Creek. These laterals are located in the western most reaches of the City, bordering with the City of Memphis. Flowing through mostly residential sections of the City, they tie into the main stream of Harrington Creek near Freeman Park. Basin 1 drains an area of slightly more than 1350 acres with approximately 540 acres within the City of Bartlett.
 - 2) Basin 2 is the main stream for **Harrington Creek**. Its route nearly parallels Bartlett Blvd before crossing into Nesbit Park, with a lateral continuing north, paralleling Billy Maher Road. It's described in item 2a above. Basin 2 drains an area of more than 2300 acres with approximately 1450 acres within the City of Bartlett.
 - 3) Basin 3 is **Lateral C & D**, tributaries to Harrington Creek. With its beginnings near Altruria Road, north of Stage Road, this basin comprises mostly residential areas with some commercial areas along Stage Road and also along Bartlett Blvd. The laterals tie back into the main stream of Harrington Creek near Bartlett Blvd

and Freeman Park. Basin 3 drains an area of slightly more than 1200 acres.

- 4) Basin 4 is **Lateral E** of Harrington Creek. Beginning at Stoneridge Park, this tributary flows through mostly residential areas and ties into the Harrington Creek main stream near Blackwell Road. Basin 4 drains an area of nearly 720 acres.
- b. **Fletcher Creek** watershed. Although Fletcher Creek is outside the jurisdictional boundaries of the City of Bartlett, its unnamed tributary comprises the largest portion of the City's Wolf River watershed. With over 23 miles of waterways, the unnamed tributary to Fletcher Creek is divided into seven sub-basins.
- 1) **Fletcher Creek Basin 1** is located in the southern most section of the City, providing drainage for mostly commercial properties in the Summer Oaks area and along Summer Avenue as well as some rural residential areas east of Juneway Drive. Its two tributaries in Bartlett both cross Summer Avenue and pass into the City of Memphis near Charles Bryant Road as well as just south of Kirby-Whitten Road. Basin 1 drains an area of more than 725 acres with approximately 185 acres within the City of Bartlett.
 - 2) Basin 2 is known as **Lateral E to Fletcher Creek** and has its headwaters near the Kirby Lakes area. This tributary begins in residential areas but crosses both commercial and open areas of the City. It passes into the City of Memphis at two places along U.S. Highway 64, east of Summer Avenue. Basin 2 drains an area of more than 800 acres with approximately 580 acres within the City of Bartlett.
 - 3) Basin 3 is known as **Lateral D to Fletcher Creek**. Beginning in the Oak Road Meadows subdivision, this tributary passes through mostly rural residential and open areas before joining with the tributary draining the Wolfchase Basin (basin 6) near the Cherry Valley subdivision, just north of U.S. Highway 64. Basin 3 drains an area of slightly more than 460 acres.
 - 4) Basin 4 is known as **Lateral C to Fletcher Creek**. Its headwaters are located near Fonta Road and flows mainly through rural residential areas of the City before joining with Lateral D near Yale Road. Basin 4 drains an area of nearly 910 acres.
 - 5) Basin 5 is known as **Lateral A to Fletcher Creek**. With its headwaters located near the Davies Plantation section of the City, this tributary flows through a large cross section of rural residential, residential, open pastures and farm land and commercial areas before joining with the tributary for the Wolfchase Basin (basin 6) near Brother Blvd, south of Yale Road. Basin 5 drains an area of over 2450 acres.

- 6) Basin 6 is known as the ***Wolfchase Basin*** and has its origins in both the City of Bartlett and the City of Memphis. In Bartlett, its headwaters is near Lakeside Behavior Health Hospital on Brunswick Road and after a relatively short journey it crosses into the City of Memphis west of New Brunswick Road. It re-enters the City at U.S. Highway 64 east of Kate Bond Road. Passing through mostly commercial and open farm land, it's joined by tributaries from basins 3 and 5 before passing back into the City of Memphis at U.S. Highway 64, east of Santa Valley. The Wolfchase Basin drains an area of nearly 1700 acres with approximately 950 acres within the City of Bartlett.
- 7) Basin 7 is known as the ***Fletcher Creek Upper Basin***. Although the headwaters for this basin are actually located in the City of Memphis, this basin drains water from the Davies Plantation area in the most south-eastern portion of the City. The Fletcher Creek Upper Basin drains an area of nearly 1900 acres with approximately 240 acres within the City of Bartlett.

The NPDES General Permit for Discharges from Small MS4s requires stream monitoring in streams with EPA approved TMDLs and in streams with unavailable parameters for nutrients, pathogens or siltation as listed in the most current Clean Water Act Section 303(d) list or the TDEC mapping tool website. [Section 6](#) of the SWMP provides details of monitoring and assessment requirements.

The 2024 303(d) List lists the Loosahatchie River, Howard Creek, Buckhead Creek, Oliver Creek, Harrington Creek and the unnamed tributary of Fletcher Creek as having unavailable parameters due to discharges from MS4s. Additionally, these streams are also identified as having unavailable parameters for siltation, habitat alteration, pathogens or nutrients. The Loosahatchie River and the Wolf River have EPA approved TMDLs for E.coli. The unnamed tributary to Fletcher Creek has an EPA approved TMDL for arsenic. [Table 5-1](#) in Section 5 summarizes the information contained in the 2024 303(d) List and the TMDL information from the TDEC website.

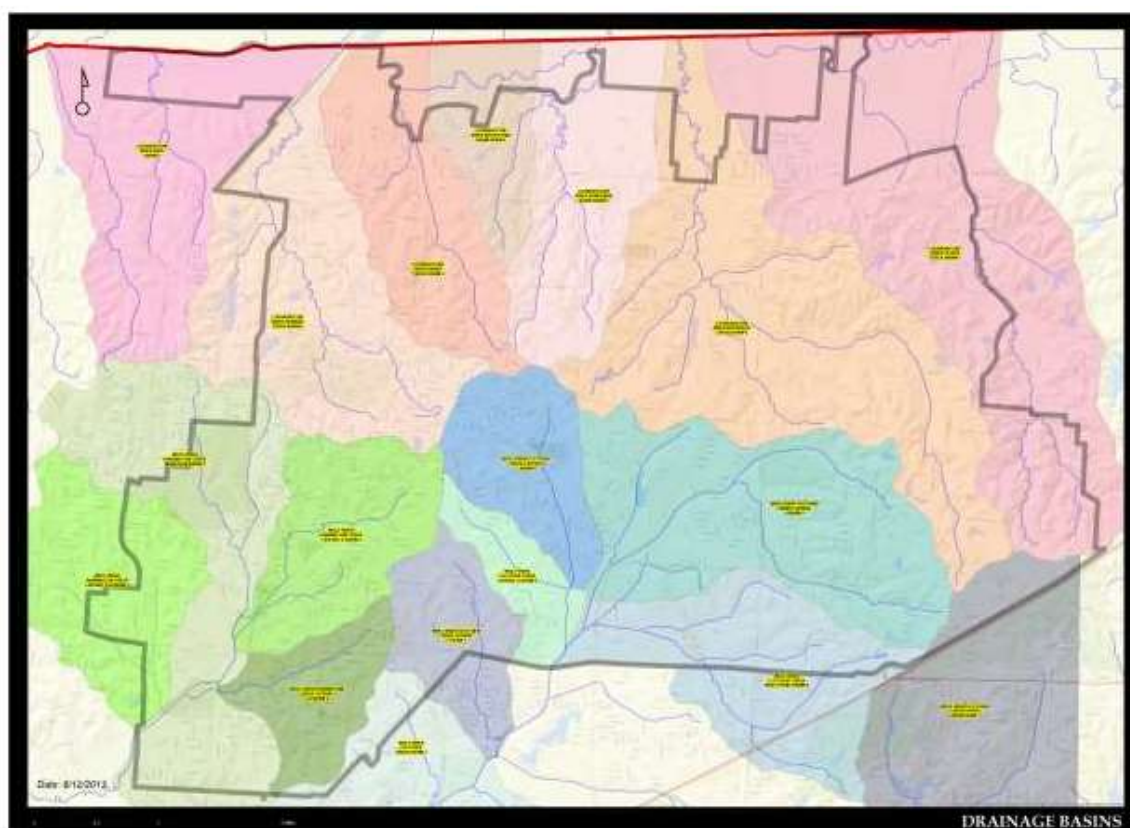


Figure 2.1 Drainage Basin Map
(Gray line indicates City of Bartlett boundary)

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CURRENT NPDES PERMIT

The City of Bartlett has applied to and received coverage from the Tennessee Department of Environment and Conservation under the NPDES Small MS4 General Permit (the Permit).

The Permit authorizes the City of Bartlett to discharge storm water to waters of the state. Additionally, the following non-storm water discharges are authorized:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration (definition provided in the Permit)
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool discharges
- Street wash water
- Discharges or flows from firefighting activities

Requirements specified in the Permit form the framework for the SWMP and the Stormwater Management Program described in [Section 6](#) and [Appendix 1](#) of the SWMP.

COVERAGE AREA

Coverage only applies within the jurisdictional boundaries of the City of Bartlett as shown in [Figure 3.1](#). As reserve areas are annexed into the City, the jurisdictional boundaries of the City must be updated and included in the annual report described in [Section 7](#) of the SWMP.

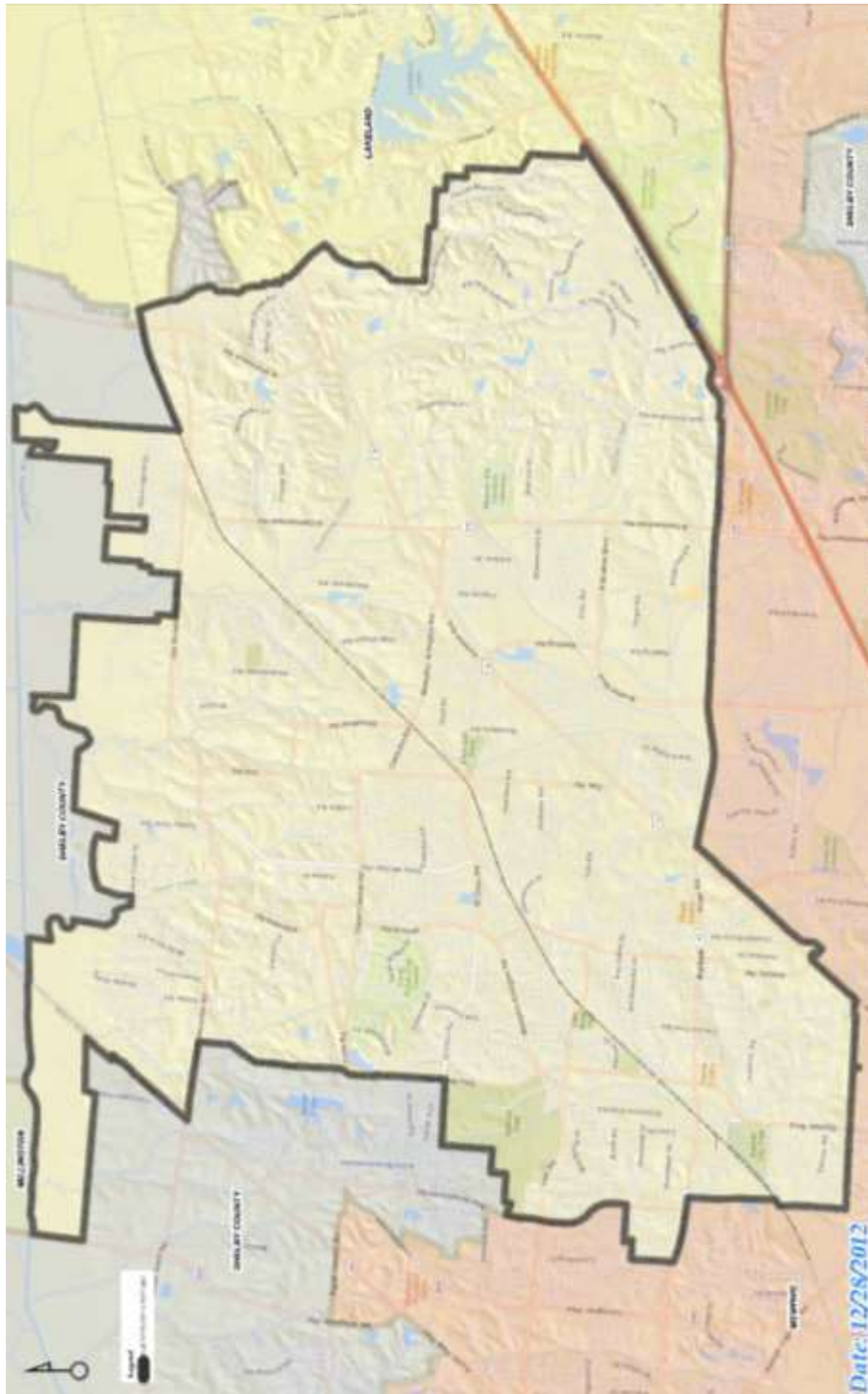


Figure 3.1 City of Bartlett Jurisdictional Boundary

NOTICE OF INTENT REQUIREMENTS

Section 2 of the Permit specifies the requirement to submit a notice of intent (NOI) to obtain coverage under the NPDES General Permit. The City of Bartlett NOI was electronically submitted to the TDEC and accepted.

APPROVED NOTICE OF COVERAGE

An approved notice of coverage (NOC) was issued to the City of Bartlett with an effective date of January 1, 2023, a copy of which is provided at [figure 4.1](#).



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Tracking No. TNS075698

**Notice of Coverage (NOC) under the General NPDES Permit for
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) the following operator of a small municipal separate storm sewer system is authorized to discharge stormwater runoff into the waters of the State of Tennessee in accordance with the various eligibility criteria, administrative procedures, program requirements, reporting requirements, etc. set forth in the Tennessee MS4 NPDES general permit.

Permittee Name:	City of Bartlett
is authorized to discharge:	stormwater runoff
from separate storm sewer system located in:	Bartlett, TN, Shelby County
to to waters of the state:	in accordance with the required program elements and other conditions set forth in the Tennessee small MS4 general permit.
Issuance date:	12/09/2022
Effective date:	01/01/2023
Expiration date:	08/31/2027

Figure 4.1 City of Bartlett Notice of Coverage

DISCHARGES TO WATERBODIES WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS

303(d) Listed Streams Section 3 of the Permit requires “the permittee must determine whether it discharges stormwater into streams with unavailable parameters for nutrients, pathogens, siltation, or other parameters related to stormwater runoff from urbanized areas”. Additionally, “For waters with unavailable parameters, the permittee must determine whether a total maximum daily load (TMDL) has been established and approved by the Environmental Protection Agency (EPA)”. Table 5-1 summarizes the data obtained from the 2024 303(d) List as well as that obtained from the TDEC website for EPA-Approved TMDLs.

Water Body Name	Pollutant of Concern	Pollutant Source	Approved TMDL
Loosahatchie River (TN08010209 002-1000)	Mercury, lead, chlordane, PCBs, dioxin, nutrients, sedimentation/siltation, physical substrate habitat alterations, and Escherichia coli	Contaminated sediment, discharges from MS4 area, crop production, atmospheric deposition, land development and channelization	Yes. Escherichia coli and PCBs.
Loosahatchie River (TN080102 002-2000)	Escherichia coli, nutrients, physical substrate habitat alterations, and sedimentation/siltation	Discharges from MS4 area, crop production, land development, and channelization.	Yes. Escherichia coli.
Howard Creek	Nutrients and Escherichia coli	Discharges from MS4 area	No
Buckhead Creek	Dissolved oxygen, sedimentation/siltation, nutrients and Escherichia coli	Discharges from MS4 area and land development	No
Oliver Creek	Nutrients, sedimentation/siltation and Escherichia coli	Discharges from MS4 area and land development	No
Harrington Creek	Dissolved oxygen, nutrients and Escherichia coli	Discharges from MS4	No
Unnamed Tributary to Fletcher Creek	Alteration in stream-side or littoral vegetative covers, arsenic, dissolved oxygen, physical substrate habitat alterations and Escherichia coli	Discharges from MS4 and channelization	Yes. Arsenic.

Table 5-1 303(d) Listed Waters within Bartlett MS4

Discharges into Water Bodies with EPA-Approved or Established TMDLs Section 3 of the Permit requires:

“The permittee must implement stormwater pollutant reductions consistent with assumptions and requirements of any applicable WLA(s) in TMDLs established or approved by EPA. If a TMDL is applicable, the Stormwater Management Program must include Best Management Practices (BMPs) specifically targeted to achieve the reductions prescribed by the TMDL. The Stormwater Management Program must also contain a monitoring and/or evaluation component to assess the effectiveness of the BMPs in achieving the reductions, and overall compliance with the standard Maximum Extent Practicable (MEP).”

SECTION 5 – SPECIAL CONDITIONS

Monitoring can entail a number of activities, including but not limited to: outfall monitoring, in-stream monitoring or modeling. Monitoring requirements are further described in sub-part 4.6 of this permit”.

The City of Bartlett has not been identified with a waste load allocation in EPA established or approved TMDLs for Escherichia coli or arsenic. However, the City has several BMPs established to aid in the reduction or elimination of these pollutants. The BMPs primarily consists of public education and dry weather outfall reconnaissance inspections. Both programs are more fully explained in [Appendix 1](#). The effectiveness of the BMPs is monitored by pathogen sampling. The sampling program is more fully explained in [Appendix 1](#). Since neither the EPA nor the TDEC can provide information concerning effective measures for reducing arsenic, there are no BMPs in place for arsenic reductions. Although not required, the City has conducted sampling for arsenic in the affected stream segment but could not isolate a source. Additionally, the Permit requires:

“Not later than 180 days following a newly approved or established TMDL, the Stormwater Management Program shall be revised to include BMPs specifically targeted to achieve the reductions prescribed by the TMDL.”

The possibility continues to exist that new TMDLs may establish a WLA to the City of Bartlett. With this in mind, every TMDL which the City of Bartlett receives notification of pending or actual publication must be reviewed and its impacts upon the City assessed. If the City of Bartlett must meet WLA, the Stormwater Management Program shall be modified to provide development and implementation planning to achieve the TMDL requirements.

Discharges to Waterbodies with Unavailable Parameters without TMDLs. Section 3 of the Permit requires:

“For the discharge of nutrients, pathogens, siltation or other parameters related to stormwater runoff from urbanized areas into a receiving water which has been identified according to subpart 3.1 as having unavailable parameters but not covered by a TMDL, the permittee must document in its Stormwater Management Program how the BMPs will address the discharge of these pollutants. Compliance with this section shall be demonstrated through a monitoring component to assess the effectiveness of the BMPs in controlling the discharge of these pollutants. This component must also be included in the Stormwater Management Program. Monitoring can entail a number of activities including but not limited to: outfall monitoring, in-stream monitoring and/or modeling. Monitoring requirements are further described in subpart 4.6 of this permit.”

As noted in [Table 5-1](#), several water bodies within the jurisdictional boundaries of the City of Bartlett are listed on the Section 303(d) list as having unavailable parameters and do not have established or approved EPA TMDLs for the pollutant of concern. Specific BMPs used and monitoring components used to assess their effectiveness to address these pollutants are outlined in [Section 6](#) of this SWMP.

CO-PERMITTEES AND COORDINATED PROGRAMS

Co-permittees The Permit allows multiple MS4s to share permit responsibilities under a single NOI. As of the publication date of the SWMP, the City of Bartlett does not participate as a co-permittee under a single NOI.

Coordinated Programs Implementation of one or more of the minimum control measures described in subpart 4.2 of the Permit may be shared with another entity, or the entity may fully take over the measure. As of the publication date of the SWMP, the City of Bartlett does not participate in a coordinated program.

REQUIREMENTS

Section 4 of the Permit requires the City of Bartlett to “continue to *develop, implement, and enforce a Stormwater Management Program as described below and according to 40 CFR §122.30-122.37 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act. The Program shall include engineering methods, system design, control techniques, and/or management practices appropriate for the control of pollutants of concern*”.

This section of the SWMP outlines the City of Bartlett’s Stormwater Management Program and the policies and procedures used to implement the minimum control measures and requirements of section 4.2 of the Permit. Where policies and procedures have yet to be developed, the Stormwater Management Program outlines the plan to develop, implement and enforce the minimum control standard. The Permit requires all elements of the Stormwater Management Program to be documented in the SWMP. The City of Bartlett’s Stormwater Management Program is located in [Appendix 1](#) to this SWMP. Although the SWMP contains all elements of the Stormwater Management Program, the program is designed to function independent of the SWMP.

The Stormwater Management Program must also include the following information for each of the six minimum control measures described in section 4.2 of the permit:

- a) A detailed written document(s) that describes how the permittee intends to comply with the permit’s requirements.
- b) A detailed narrative description of the BMPs/activities, programs and processes that the permittee or other entity will implement for each of the stormwater control minimum measures;
- c) The measurable goals for each of the BMPs/activities including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action.
- d) Identify by name, job title or department those with the responsibility for implementing or coordinating the Program elements in the Stormwater Management Program; and
- e) Specific elements detailed in each subpart of Part 4 of the Permit.

The Permit requires the City of Bartlett to continue to implement its existing program and all changes to the Stormwater Management Program and written documentation or “plans” required by the Permit be completed within 12 months of the effective date of the notice of coverage with the exception of those items listed in the [table 6-1](#).

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

Permit Requirement	Description	Implementation Date
Legal Authority e.g. Ordinance Updates	All updates to the legal authority required by changes to this permit shall be fully implemented and adopted (as applicable)	As soon as possible in conjunction with the permanent stormwater legal authority (not to exceed 24 months from the effective date of the permit). (September 1, 2024)
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of the NPDES general permit for construction stormwater runoff effective October 1, 2021.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 24 months of the effective date of the permit. (October 1, 2023)
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of any reissued NPDES general permit for construction storm water runoff with an effective date after September 30, 2026.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 18 months of the effective date of the NPDES general permit for construction stormwater runoff.
4.2.5	Implementation of permanent stormwater management program.	Either the effective date of the notice of coverage or as specified in the implementation plan (not to exceed 24 months from the effective date of the permit) NOTE: This permit requirement has been waived by a Settlement Agreement with TDEC.
4.2.5.1d	Submit implementation plan for permanent stormwater management program	90 days from the effective date of the permit. NOTE: This permit requirement has been waived by a Settlement Agreement with TDEC.
4.6.1.1.2	Only required if Option 2 is selected, A proposed alternate monitoring plan must be submitted to the Nashville Central Office at Water.Permits@tn.gov	24 months from the Effective Date of the permit. (September 1, 2024)

Table 6.1 Minimum Control Measures Implementation Time-line

MINIMUM CONTROL MEASURES

Public Education and Outreach on Stormwater impacts (permit section 4.2.1.) The Permit requires the City of Bartlett to develop and implement an education and outreach program that includes public education and outreach on stormwater impacts as a component of the stormwater management program. The program will be designed to reach three major audiences, (1) the public (2) engineering and development community and (3) employees.

The permit continues that the program shall include:

1. Specific public information/education activities that are designed to meet the management measure;
2. Identification of job categories and applicable management measures for employee education;
3. Schedule/calendar of events for each year; and
4. Methodology to evaluate components to assess overall effectiveness and need for improvement.

Public Education and Outreach. Section 4.2.1.1 of the permit provides the management measures, goals and annual reporting requirements for the public audience portion of this minimum requirement.

BMP/Activity	Public Education and Outreach
Measurable Goal	Conduct or sponsor a minimum of six activities each reporting year that addresses each of the management measures
Primary Contact	Storm Water Coordinator
Management Measures	General awareness of the impacts on water quality; Awareness of the importance of maintenance activities for operators of permanent BMPs or SCMs; Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
Reporting requirements	Document total number of activities conducted to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience that was reached. For sponsored activities, identify if the event was sponsored monetarily or in kind.

To help achieve these management measures, the City of Bartlett uses several activities/BMPs. The following summarizes those activities/BMPs. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

1.

BMP/Activity	City of Bartlett Official website.
Measurable Goal	Maintain official website relevant to changing federal, state and local regulations or laws as well as permit requirements.
Primary Contact	Stormwater Coordinator
Pollutants of Concern	Arsenic, sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
Management measure	General awareness of the impacts on water quality; Awareness of the importance of maintenance activities for operators of permanent BMPs or SCMs; Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
Monitoring Requirements	Review as part of the Stormwater Management Program's annual review and update accordingly.
2.

BMP/Activity	Stormwater Education Booth.
Measurable Goal	Operate a stormwater education booth at the Bartlett Fall Festival.
Primary Contact	Stormwater Coordinator
Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
Management measure	General awareness of the impacts on water quality; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
Monitoring Requirements	Document Stormwater Education Booth use to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
3.

BMP/Activity	Preventing Stormwater Pollution General Education PowerPoint™ Presentation.
Measurable Goal	Make available annually to neighborhood associations or other groups when requested.
Primary Contact	Stormwater Coordinator
Pollutants of Concern	Sediments, nutrients, pathogens, trash and debris, pesticides, petroleum products.
Management measure	General awareness of impacts on water quality Awareness of the proper use and disposal of pesticides, herbicides, fertilizer and oil.
Monitoring Requirements	Document presentations presented to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

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| 4. | BMP/Activity | Tennessee Homeowners' Guide to Cleaner Water Education Brochure. |
| | Measurable Goal | Make available to the public 100 brochures each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Sediments, nutrients, pathogens, pesticides, petroleum products, illegal dumping. |
| | Management measure | General awareness of impacts on water quality;
Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids |
| | Monitoring Requirements | Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |
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| 5. | BMP/Activity | Pet Waste and Water Quality Brochure |
| | Measurable Goal | Make available to the public 100 brochures each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Pathogens |
| | Management measure | General awareness of impacts on water quality |
| | Monitoring Requirements | Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |
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| 6. | BMP/Activity | Clean Water – Everybody's Business Bookmark |
| | Measurable Goal | Make available to the public 100 bookmarks each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Sediments, nutrients, pathogens, pesticides, petroleum products, illegal dumping. |
| | Management measure | General awareness of impacts on water quality;
Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids. |
| | Monitoring Requirements | Document number of bookmarks distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

7.	BMP/Activity	City of Bartlett Facebook page.
	Measurable Goal	Post at least one public service announcement (PSA) per reporting period.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Varies depending upon PSA. May include one or more of the following: sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Varies depending upon PSA. May include one or more of the following: General awareness of impacts on water quality; Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs; Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
	Monitoring Requirements	Report number of PSAs made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
8.	BMP/Activity	Tennessee Stormwater Association (TNSA) Social Media Campaign.
	Measurable Goal	Participate in the program at the per capita funding level as invoiced by the TNSA. (Monetary sponsor)
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Varies depending upon PSA. May include one or more of the following: sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Varies depending upon PSA. May include one or more of the following: General awareness of impacts on water quality; Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
	Monitoring Requirements	Maintain copy of report provided by the TNSA. Report number of PSAs made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

9.	BMP/Activity	Detention Basin Maintenance Brochure.
	Measurable Goal	Distribute brochure on an as needed basis.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	General awareness of impacts on water quality; Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs.
	Monitoring Requirements	Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
10.	BMP/Activity	Automotive Maintenance and Care Brochure.
	Measurable Goal	Distribute brochure on an as needed basis.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Petroleum products, illicit discharges, illegal dumping.
	Management measure	General awareness of impacts on water quality; Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids
	Monitoring Requirements	Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
11.	BMP/Activity	Illicit Discharge and Elimination Handout.
	Measurable Goal	Distribute handouts at homeowner association meetings and the Bartlett Fall Festival.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	General awareness of the impacts on water quality; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
	Monitoring Requirements	Document number of handouts distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
12.	BMP/Activity	IDDE – A Grate Concern Video.
	Measurable Goal	Post at least once per reporting period.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	General awareness of impacts on water quality; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
	Monitoring Requirements	Document numbers of postings made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

13.	BMP/Activity	Stormwater Pollution Found in Your Neighborhood Door Tags.
	Measurable Goal	Distribute to each home within a block of a reported illicit discharge where the discharger cannot be identified.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, pathogens, trash and debris, pesticides, petroleum products.
	Management measure	General awareness of impacts on water quality; Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers, oil and other automotive fluids; Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage or spills, etc.
	Monitoring Requirements	Document number of door tags distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
14.	BMP/Activity	Keep Bartlett Beautiful.
	Measurable Goal	Perform one activity per reporting period.
	Primary Contact	Parks Department
	Pollutants of Concern	Trash and debris, pathogens, illegal dumping.
	Management measure	General awareness of impacts on water quality;
	Monitoring Requirements	Document numbers of events to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

Engineering and Development Community Education and Outreach. Section 4.2.1.2 of the permit provides the management measures, goals and annual reporting requirements for the engineering and development audience portion of this minimum requirement.

BMP/Activity	Engineering and Development Community Education and Outreach
Measurable Goal	Conduct or sponsor a minimum of two activities each reporting year that addresses each of the management measures
Primary Contact	Stormwater Coordinator
Management Measures	Awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts; Awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts
Reporting requirements	Document total number of activities conducted to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

To help achieve these management measures, the City of Bartlett uses several BMPs/activities. The following summarizes those BMPs/activities. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

1.

BMP/Activity	City of Bartlett Official website.
Measurable Goal	Maintain official website relevant to changing federal, state and local regulations or laws as well as permit requirements.
Primary Contact	Stormwater Coordinator
Pollutants of Concern	Arsenic, sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
Management measure	Awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts; Awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.
Monitoring Requirements	Review as part of the Storm Water Management Program's annual review and update accordingly.

2.

BMP/Activity	Pre-application meetings
Measurable Goal	Accomplish meeting when requested
Primary Contact	Planning Department
Management Measure	Address awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts. Address awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.
Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.

3.

BMP/Activity	Mid-South Clean Water Days
Measurable Goal	Participate in the Mid-South Clean Water Days either monetarily or by setting up a stormwater education booth.
Primary Contact	Stormwater Coordinator
Management Measure	Varies but may include awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.
Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.

4.

BMP/Activity	Engineering and Development Communities mailing list.
Measurable Goal	Use mailing list on an as needed basis.
Primary Contact	Stormwater Coordinator
Management Measure	Varies but may include awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.
Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

Employee Education and Outreach. Section 4.2.1.3 of the permit provides the management measures, goals and annual reporting requirements for the employee audience portion of this minimum requirement. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

BMP/Activity	Employee Education and Outreach
Measurable Goal	Educate all new employees in the identified job category within 6 months of assignment and; Educate all existing employees in the identified job category once per permit period.
Primary Contact	Stormwater Coordinator
OCR	Public Works and Parks Departments
Management Measure	Address awareness of water quality impacts from daily operations, pollution prevention and good housekeeping and awareness of identifying and reporting illicit connections/discharges, sanitary sewer diversions, seepages or spills, etc.
Reporting Requirements	Report how many new employees in the identified job category not trained within 6 months of assignment and; Report how many existing employees in an identified job category were not trained within the permit term.

Public Involvement/Participation The Permit requires the City of Bartlett to “implement a program for public involvement and participation as a component of the stormwater management program. *The objective is to promote, publicize, and facilitate citizen’s participation in the development and implementation of the stormwater management program*”. The program is to be designed to reach two major audiences, the general public and the commercial and industrial community. The program must include the following at a minimum:

1. Specific public involvement/participation activities that are designed to meet the management measures.
2. Schedule/calendar of events for the year.
3. Methodology to evaluate components to assess overall effectiveness and the need for improvement.
4. A mechanism for citizen reporting of illegal spillage, dumping, or otherwise illicit disposal of materials into the MS4.
5. Publicity plan for public involvement and participation opportunities by methods designed to reach the intended audience.
6. Opportunities for the public to participate in decision-making processes for developing, implementing and updating the stormwater management program.
7. Mechanisms, procedures and processes for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new developments and redevelopments.
8. A public notice process for program modifications.
9. Track and maintain records of public involvement and participation opportunities.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

Public Involvement/Participation. Section 4.2.2 of the permit provides the management measures, goals and reporting requirements for the general requirements for this program element. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

1.

BMP/Activity	Public Involvement/Participation.
Measurable Goal	Make written description of Stormwater Management Program available either on the MS4's website or through public records review process.
Primary Contact	Stormwater Coordinator
Management measure	Provide public access to the Stormwater Management Program records, including written description of the Stormwater Management Program, available to the public at reasonable times during regular business hours.
Reporting Requirements	Provide the web address for the Stormwater Management Program or a brief description of the public records request process.

2.

BMP/Activity	Public Involvement/Participation.
Measurable Goal	Prior to second annual report, complete the formal public notice process for the entire Stormwater Management Program, including response to comments, For subsequent years, provide formal notice for major changes
Primary Contact	Stormwater Coordinator
Management measure	Develop and implement a formal public notice process including documenting and responding to public comments and a process for identifying major modifications that require formal public notice.
Reporting Requirements	For years when the program requires formal public notice, a copy of the formal notice and response to comments

3.

BMP/Activity	Public Involvement/Participation.
Measurable Goal	Information for 100% of all construction site projects is accessible to the public. 100% of all comments from the public are considered.
Primary Contact	Planning Department
Management measure	Mechanisms, procedures, and processes for public access to information on projects and receiving and considering comments from the public on those projects.
Reporting Requirements	Is information for all construction site projects accessible to the public? Number of comments received. Are all comments from the public considered?

4.

BMP/Activity	Public Involvement/Participation.
Measurable Goal	Develop and implement a public reporting system to facilitate and track public reports of spills, discharges, and dumping into the storm sewer system.
Primary Contact	Code Enforcement
Management measure	Encourage and promote citizen reporting of illegal spillage, dumping or otherwise disposal of material into the MS4.
Reporting Requirements	Number of reports received from the public.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

General Public. Section 4.2.2.1 of the permit provides the management measures, goals and reporting requirements for the general public audience of this program element. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

BMP/Activity	General Public
Measurable Goal	Conduct or sponsor six (6) activities each reporting year that addresses each of the management measures
Primary Contact	Stormwater Coordinator
Management measure	Conduct activities to address pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
Reporting Requirements	Total number of activities conducted

To help achieve these management measures, the City of Bartlett uses several activities/BMPs. The following summarizes those activities/BMPs. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

1.	BMP/Activity	City of Bartlett Official website.
	Measurable Goal	Maintain official website relevant to changing federal, state and local regulations or laws as well as permit requirements.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Arsenic, sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Review as part of the Storm Water Management Program's annual review and update accordingly.

2.	BMP/Activity	Stormwater Education Booth.
	Measurable Goal	Operate a stormwater education booth at the Bartlett Fall Festival.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Document Stormwater Education Booth use to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

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| 3. | BMP/Activity | Preventing Stormwater Pollution General Education PowerPoint™ Presentation. |
| | Measurable Goal | Make available annually to neighborhood associations or other groups when requested. |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Sediments, nutrients, pathogens, trash and debris, pesticides, petroleum products. |
| | Management measure | Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use. |
| | Monitoring Requirements | Document presentations presented to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |
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| 4. | BMP/Activity | Tennessee Homeowners' Guide to Cleaner Water Education Brochure. |
| | Measurable Goal | Make available to the public 100 brochures each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Sediments, nutrients, pathogens, pesticides, petroleum products, illegal dumping. |
| | Management measure | Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use. |
| | Monitoring Requirements | Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |
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| 5. | BMP/Activity | Pet Waste and Water Quality Brochure |
| | Measurable Goal | Make available to the public 100 brochures each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Pathogens |
| | Management measure | Pollution prevention; impacts on water quality or local stormwater management issues. |
| | Monitoring Requirements | Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |
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| 6. | BMP/Activity | Clean Water – Everybody's Business Bookmark |
| | Measurable Goal | Make available to the public 100 bookmarks each year |
| | Primary Contact | Stormwater Coordinator |
| | Pollutants of Concern | Sediments, nutrients, pathogens, pesticides, petroleum products, illegal dumping. |
| | Management measure | Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use. |
| | Monitoring Requirements | Document number of bookmarks distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached. |

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

7.	BMP/Activity	City of Bartlett Facebook page.
	Measurable Goal	Post at least one public service announcement (PSA) per reporting period.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Varies depending upon PSA. May include one or more of the following: sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Varies depending upon PSA. May include one or more of the following: Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Report number of PSAs made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
8.	BMP/Activity	Tennessee Stormwater Association (TNSA) Social Media Campaign.
	Measurable Goal	Participate in the program at the per capita funding level as invoiced by the TNSA. (Monetary sponsor)
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Varies depending upon PSA. May include one or more of the following: sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Varies depending upon PSA. May include one or more of the following: Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Maintain copy of report provided by the TNSA. Report number of PSAs made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
9.	BMP/Activity	Detention Basin Maintenance Brochure.
	Measurable Goal	Distribute brochure on an as needed basis.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

10.	BMP/Activity	Automotive Maintenance and Care Brochure.
	Measurable Goal	Distribute brochure on an as needed basis.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use.
	Monitoring Requirements	Document number of brochures distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
11.	BMP/Activity	Illicit Discharge and Elimination Handout.
	Measurable Goal	Distribute handouts at homeowner association meetings and the Bartlett Fall Festival.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Document number of handouts distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
12.	BMP/Activity	IDDE – A Grate Concern Video.
	Measurable Goal	Post at least once per reporting period.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Document numbers of postings made to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

13.	BMP/Activity	Stormwater Pollution Found in Your Neighborhood Door Tags.
	Measurable Goal	Distribute to each home within a block of a reported illicit discharge where the discharger cannot be identified.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Sediments, nutrients, pathogens, trash and debris, pesticides, petroleum products.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues; and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
	Monitoring Requirements	Document number of door tags distributed to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.
14.	BMP/Activity	Keep Bartlett Beautiful.
	Measurable Goal	Perform one activity per reporting period.
	Primary Contact	Parks Department
	Pollutants of Concern	Trash and debris, pathogens, illegal dumping.
	Management measure	Pollution prevention; impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Document numbers of events to include description, dates, management measures addressed, specifically targeted audience and the approximate number of that audience reached.

Commercial and development community. Section 4.2.2.2 of the permit provides the management measures, goals and reporting requirements for the commercial and development community audience of this program element. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

BMP/Activity	Commercial and Development Community
Measurable Goal	Conduct or sponsor two (2) activities each reporting year that addresses each of the management measures
Primary Contact	Stormwater Coordinator
Management measure	Conduct activities to address pollution prevention and impacts on water quality or local stormwater management issues.
Reporting Requirements	Total number of activities conducted

To help achieve these management measures, the City of Bartlett uses several BMPs/activities. The following summarizes those BMPs/activities. Detailed information concerning the implementation of the overall management measures and these programs is located in [Appendix 1](#).

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

1.	BMP/Activity	City of Bartlett Official website.
	Measurable Goal	Maintain official website relevant to changing federal, state and local regulations or laws as well as permit requirements.
	Primary Contact	Stormwater Coordinator
	Pollutants of Concern	Arsenic, sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.
	Management measure	Pollution prevention and impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Review as part of the Storm Water Management Program's annual review and update accordingly.
2.	BMP/Activity	Pre-application meetings
	Measurable Goal	Accomplish meeting when requested
	Primary Contact	Planning Department
	Management Measure	Pollution prevention and impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.
3.	BMP/Activity	Mid-South Clean Water Days
	Measurable Goal	Participate in the Mid-South Clean Water Days either monetarily or by setting up a stormwater education booth.
	Primary Contact	Stormwater Coordinator
	Management Measure	Varies but may include pollution prevention and impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.
4.	BMP/Activity	Engineering and Development Communities mailing list.
	Measurable Goal	Use mailing list on an as needed basis.
	Primary Contact	Stormwater Coordinator
	Management Measure	Varies but may include pollution prevention and impacts on water quality or local stormwater management issues.
	Monitoring Requirements	Document number of activities conducted to include description, date, management measures addressed, specifically targeted audience and approximate number of that audience reached.

Illicit Discharge Detection and Elimination Section 4.2.3 of the Permit requires the City of Bartlett to develop, implement and enforce a program to detect and eliminate illicit discharges into the storm sewer system. This program must include the following at a minimum:

1. A storm sewer system map;
2. Effectively prohibit, through ordinance, non-stormwater discharges into the storm sewer system and implement appropriate enforcement response;
3. Develop and implement a program to detect, investigate and address non-stormwater discharges to the storm sewer system;
4. Inform public employees, businesses and the general public of hazards associated with illegal discharges; and
5. Develop a mechanism for the public to report suspected illicit discharges.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

The City of Bartlett has developed several BMPs/activities to meet this minimum control measure. The following summarizes those BMPs/activities. Detailed information concerning the implementation of these programs is located in [Appendix 1](#).

- | | |
|-----------------------|--|
| 1. BMP/Activity | Storm sewer system map |
| Measurable Goal | Continue to update as new elements are identified |
| Primary Contact | GIS Manager |
| Management Measure | Map contains all information from permit § 4.2.3.1 |
| Reporting Requirement | Provide a copy of the system map on annual report. |
- | | |
|------------------------|---|
| 2. BMP/Activity | Stormwater Ordinance |
| Measurable Goal | Update ordinance as changes occur to federal and state laws and regulations. |
| Primary Contact | Stormwater Coordinator |
| Management Measure | Effectively prohibit non-stormwater discharges into the storm sewer system and implement appropriate ERPs |
| Monitoring Requirement | Review as part of the Stormwater Management Program's annual review and update accordingly. |
- | | |
|------------------------|--|
| 3. BMP/Activity | Dry weather field monitoring (outfall inspections). |
| Measurable Goal | Perform scheduled inspections per permit year. |
| Primary Contact | Stormwater Coordinator |
| Management Measure | Develop and implement a program to detect, investigate and address non-stormwater discharges, including illegal dumping into the system. See measurable goal for ERP for additional requirements. |
| Monitoring Requirement | Review as part of the Stormwater Management Program's annual review and adjust schedule accordingly to ensure 100% outfall inspection in 5-year cycle. See monitoring requirement for ERP for additional requirements. |
- | | |
|-----------------------|---|
| 4. BMP/Activity | Enforcement Response Plan. |
| Measurable Goal | Track all potential illicit discharges by reporting source; Initiate 100% investigations within 7 days of receipt of report; Initiate 100% initial enforcement actions within 7 days of confirmed illicit discharge; Review 100% of corrective action plans, if required |
| Primary Contact | Stormwater Coordinator |
| Management Measure | Illicit discharge reporting and investigation |
| Reporting Requirement | Review as part of the Stormwater Management Program's annual review and update accordingly. Provide number of potential illicit discharges reported by category, if responded to within 7 days, number of actual illicit discharges, if enforcement action initiated within 7 days, and, if applicable, number of corrective action plans received. |
- | | |
|-----------------------|---|
| 5. BMP/Activity | Public Information and Education Plan. |
| Measurable Goal | As specified for Public Education and Outreach section above. |
| Primary Contact | Stormwater Coordinator |
| Management Measure | Educate public employees, businesses and general public concerning the hazards and damage to water quality associated with illegal dumping and connections to the storm sewer and improper disposal of waster |
| Reporting Requirement | As specified for Public Education and Outreach section above. |

6.	BMP/Activity	IWorQ Request System.
	Measurable Goal	Respond to complaints/reports of illicit discharges within 7 days.
	Primary Contact	Stormwater Coordinator
	Management Measure	Develop a mechanism for the public to report suspected illicit discharges
	Reporting Requirement	See BMP 4 above

Construction Site Stormwater Runoff Control The Permit requires the City of Bartlett to *develop, implement and enforce a construction site stormwater runoff pollutant control program.* Additionally, the program must address pollutants in stormwater runoff from construction activities that result in a land disturbance of one acre or more as well as land disturbances of less than one acre when part of a larger common plan of development or sale. The program must include the following at a minimum:

1. An ordinance to require erosion prevention and sediment controls (EPSCs) as well as sanctions to enforce compliance;
2. Requirements for construction site operators to implement appropriate EPSC best management practices (BMPs);
3. Requirements for design storm consistent with those of the current Tennessee Construction General Permit;
4. An inventory of actively permitted public and private construction sites;
5. Requirements for construction site operators to control waste;
6. Specific procedures for construction site plan review and approval;
7. Mechanisms or plans for public access to information on new development and redevelopment projects;
8. Procedures for inspectors to evaluate and document construction site compliance;
9. Require inspectors to be level 1 certified under the Tennessee Fundamentals of Erosion Prevention and Sediment Control; and
10. Requirements for priority construction sites.

The City of Bartlett has developed several BMPs/activities to meet this minimum control measure. The following summarizes those BMPs/activities. Detailed information concerning the implementation of these programs is located in [Appendix 1](#).

1.	BMP/Activity	Stormwater ordinance.
	Primary Contact	Stormwater Coordinator
	Management Measure	Ordinance required being consistent with the currently effective CGP.
	Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP).
	Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.

2.	BMP/Activity	Stormwater ordinance.
	Primary Contact	Stormwater Coordinator
	Management Measure	Require construction site operators to implement appropriate EPSC BMPs
	Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP).
	Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

3.

BMP/Activity	Stormwater ordinance.
Primary Contact	Stormwater Coordinator
Management Measure	Require design storm be consistent with those of the current CGP.
Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP).
Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.
4.

BMP/Activity	NPDES Permit Spreadsheet.
Primary Contact	Stormwater Coordinator
Management Measure	Maintain an inventory of actively permitted public and private construction sites that result in a total land disturbance as defined in subpart 4.2.4.d. of the permit.
Measurable Goal	Maintain an up-to-date inventory with all information required by subpart 4.2.4.d. of the permit.
Reporting Requirement	Total number of active construction activities and total number of active non-priority construction activities with incomplete inventory information.
5.

BMP/Activity	Stormwater ordinance.
Primary Contact	Stormwater Coordinator
Management Measure	Require construction site operators to control waste.
Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP).
Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.
6.

BMP/Activity	Plan review standard operating procedure (SOP).
Primary Contact	Engineering Department, Land Development Engineer
Management Measure	Construction site plan review and approval
Measurable Goal	Establish policies and/or procedures for review and approval of all plans and review 100% of all new development and redevelopment projects.
Reporting Requirement	Total number of new development and redevelopment projects reviewed and were all new development and redevelopment projects reviewed.
7.

BMP/Activity	Planning Commission Meeting
Primary Contact	Planning Department
Management measure	Mechanisms, procedures, and processes for public access to information on projects and receiving and considering comments from the public on those projects.
Measurable Goal	Information for 100% of all construction site projects is accessible to the public. 100% of all comments from the public are considered.
Reporting Requirements	Is information for all construction site projects accessible to the public? Number of comments received. Are all comments from the public considered?

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

8.	BMP/Activity	Construction site inspections.
	Primary Contact	Stormwater Coordinator
	Management measure	Procedures for inspectors to evaluate and document construction site compliance.
	Measurable Goal	Inspect a minimum of 10% of active non-priority construction sites
	Reporting Requirement	Total number of active non-priority construction activities and were the inspections conducted IAW the Stormwater Management Program requirements.

9.	BMP/Activity	Construction inspector training.
	Primary Contact	Stormwater Coordinator
	Management measure	Require all inspectors who conduct inspections of construction sites maintain certification under the Tennessee Fundamentals of Erosion Prevention and Sediment Control, Level 1
	Measurable Goal	100% of EPSC inspectors are Level 1 certified under the Tennessee Fundamentals of Erosion Prevention and Sediment Control.
	Monitoring Requirement	Track certifications. Notify Department heads when training is due.

10.	BMP/Activity	Preconstruction Meetings.
	Primary Contact	Land Development Engineer
	Management measure	Preconstruction meetings with construction site operators for priority construction activities.
	Measurable Goal	Conduct preconstruction meetings of 100% of priority construction activities
	Reporting Requirement	Total number of priority construction activities and did all priority construction activities have a preconstruction meeting.

11.	BMP/Activity	Construction site inspections.
	Primary Contact	Stormwater Coordinator
	Management measure	Inspections of priority construction sites at least once per calendar month
	Measurable Goal	Inspect 100% of all priority construction activities at least once per calendar month.
	Reporting Requirement	Were all priority construction activities inspected at least once per calendar month?

Post-Construction/Permanent Stormwater Management in New Development and Redevelopment Under a settlement agreement with TDEC, this portion of the permit is not applicable to the City of Bartlett. Implementation requirements, updates or changes to this section shall not occur pending issuance and settlement of any appeal of a Phase 1 permit for the City of Memphis. The Permit requires the City of Bartlett to develop and implement a permanent stormwater management program to reduce pollutants in stormwater discharges through management practices, control techniques and systems design and engineering practices implemented to the maximum extent practicable (MEP). The Permit further requires that the program include:

1. Plans review, site inspections and a means to ensure that permanent stormwater control measures (SCMs) are adequately operated and maintained;

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

2. Develop and implement an ordinance to address permanent stormwater management in new development and redevelopment projects;
3. Require new development and redevelopment projects be designed to reduce pollutants to the MEP as set forth in the permit.
4. Require SCMs to be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project;
5. Develop and implement a set of requirements to establish, protect and maintain permanent water quality riparian buffers; and
6. Implement and maintain a system to inventory and track the status of all public and private SCMs installed on new development and redevelopment projects.

The City of Bartlett has developed several BMPs/activities to meet this minimum control measure. The following summarizes those BMPs/activities. Detailed information concerning the implementation of these programs is located in [Appendix 1](#).

1.	BMP/Activity	Plan review SOP.
	Primary Contact	Engineering Department, Land Development Engineer
	Management measure	Develop, implement and enforce policies and procedures for the submittal and review of plans.
	Measurable Goal	Establish policies and/or procedures for review and approval of all plans and review all new development and redevelopment projects.
	Reporting Requirement	Total number of all new development and redevelopment projects reviewed and the number of new development and redevelopment projects reviewed in accordance with established policy and procedures
2.	BMP/Activity	Stormwater ordinance.
	Primary Contact	Stormwater Coordinator
	Management measure	Develop and implement, and modify as necessary, an ordinance to address permanent stormwater management at new development and redevelopment projects.
	Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP). Update as required for subsequent Small MS4 permits
	Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.
3.	BMP/Activity	Stormwater ordinance.
	Primary Contact	Stormwater Coordinator
	Management measure	Require new development and redevelopment projects be designed to reduce pollutants to the MEP as set forth in the permit.
	Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP). Update as required for subsequent Small MS4 permits
	Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

4.

BMP/Activity	Stormwater ordinance
Primary Contact	Stormwater Coordinator
Management measure	Require SCMs to be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project
Measurable Goal	Update ordinance within 18 months of the effective date of a Tennessee Construction General Permit (CGP). Update as required for subsequent Small MS4 permits
Reporting Requirement	Identify if the regulatory mechanism has been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of subsequent CGPs.

5.

BMP/Activity	Stormwater ordinance
Primary Contact	Stormwater Coordinator
Management measure	Develop and implement a set of requirements to establish, protect and maintain permanent water quality riparian buffers
Measurable Goal	100% of projects must have the buffer as identified in subpart 4.2.5.4 of the Permit
Reporting Requirement	Did all the projects approved meet the buffer requirements of subpart 4.2.5.4. of the permit?

6.

BMP/Activity	SCM spreadsheet
Primary Contact	Stormwater Coordinator
Management measure	Implement and maintain a system to inventory and track the status of all public and private SCMs
Measurable Goal	Make the system available to the TDEC or members of the public upon request. 100% of all SCMs must be included in the system with complete information.
Reporting Requirement	Total number of request for inventory. Are all SCMs in the inventory tracking system? Do all SCMs in the system have complete information?

7.

BMP/Activity	SCM post-installation inspection
Primary Contact	Stormwater Coordinator
Management measure	Develop, implement and enforce policies and procedures for SCM installation verification
Measurable Goal	Verify 100% of SCMs are installed per design specifications in accordance with approved plans within 90 days of installation.
Reporting Requirement	Total number of sites verified. Were all SCMs installed per design specifications in accordance with approved plans within 90 days of installation?

8.

BMP/Activity	Stormwater ordinance
Primary Contact	Stormwater Coordinator
Management measure	Establish and maintain adequate legal authority assigning SCM maintenance responsibility and personnel access to the SCM and provide enforcement action.
Measurable Goal	Permittee has legal authority to access SCMs and assigned maintenance responsibility for 100% of SCMs and has legal authority for enforcement for 100% of SCMs that have not been properly maintained.
Reporting Requirement	Total number of request for inventory. Are all SCMs in the inventory tracking system? Do all SCMs in the system have complete information?

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

Pollution Prevention/Good Housekeeping for Municipal Operations The Permit requires the City of Bartlett to *develop and implement an operation and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations*. The program must include:

1. An employee training program for employees responsible for municipal operations at facilities that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s.
2. An operations and maintenance (O&M) program detailing the activities and procedures implemented to maintain the MS4 infrastructure to reduce the discharge of pollutants.

The City of Bartlett has developed several BMPs/activities to meet this minimum control measure. The following summarizes those BMPs/activities. Detailed information concerning the implementation of these programs is located in [Appendix 1](#).

1.	BMP/Activity	Municipal Employee Training Program.
	Primary Contact	Stormwater Coordinator
	OCR	Public Works and Parks Departments
	Management measure	Address awareness of water quality impacts from daily operations, pollution prevention and good housekeeping and awareness of identifying and reporting illicit connections/discharges, sanitary sewer diversions, seepages or spills, etc.
	Measurable Goal	Educate all new employees in the identified job category within 6 months of assignment and; Educate all existing employees in the identified job category once per permit period.
	Reporting Requirement	Report how many new employees in the identified job category not trained within 6 months of assignment and; Report how many existing employees in an identified job category were not trained within the permit term.
2.	BMP/Activity	Facilities Operations Plan.
	Primary Contact	Stormwater Coordinator
	OCR	Public Works and Parks Departments
	Management measure	Develop and implement an O&M facility plan
	Measurable Goal	All applicable municipal operations must have an O&M facility plan.
	Reporting Requirement	Number of municipal operations facilities and do all municipal operations facilities have an O&M facility plan?
3.	BMP/Activity	Facility site inspections.
	Primary Contact	Stormwater Coordinator
	OCR	Public Works and Parks Departments
	Management measure	Facility site inspections
	Measurable Goal	Conduct a facility site inspection at all municipal operations facilities at least once every 12 months.
	Reporting Requirement	Number of municipal operations facilities not inspected in the previous 12 months.

QUALIFYING TRIBE, STATE or LOCAL PROGRAM (QLP)

A QLP is a MS4 Stormwater Management Program that has been formally approved by the division as having met QLP minimum program requirements related to stormwater discharges associated with construction activity. The City of Bartlett does not participate in this program.

STORMWATER MANAGEMENT PROGRAM MODIFICATION

Section 4.4 of the Permit allows the MS4 to modify the Stormwater Management Program during the life of the permit. There are two types of modifications:

1. Minor modifications may add components to the program but not subtract or replace components controls or requirements of the Stormwater Management Program. A description of the modification is to be included in the annual report but the modification doesn't require formal public notice. Some examples include:
 - a. Correction of typographical errors;
 - b. Increases in monitoring;
 - c. Removing an outfall when the discharge from that outlet is terminated;
 - d. Replacing an ineffective or infeasible BMP or SCM which is specifically identified in the Stormwater Management Program along with an alternate BMP or SCM.
2. Major modifications are all other types of modifications and require formal public notice. TDEC-DWR is to be included in the distribution list.

1.	BMP/Activity	Program modifications.
	Primary Contact	Stormwater Coordinator
	Management measure	Identify modifications as minor or major and report as required by the Permit
	Measurable Goal	Report all minor and major modifications to the Stormwater Management Program as required.
	Reporting Requirement	Were any changes made to each program element? Description of modifications made.

The City of Bartlett must implement the Stormwater Management Program in all new areas annexed to the city as expeditiously as practicable, but not later than one year following annexation.

ENFORCEMENT

Enforcement Response Plan

The permit requires the MS4 to *develop and implement an enforcement response plan (ERP)*. The City must have the legal ability to employ progressive enforcement actions as described below and escalate responses where necessary:

1. Verbal warnings – at a minimum, should be as specific as possible to the nature of the violation and documented;
2. Written notice of violation – must stipulate the nature of the violation and the required corrective action, with deadlines for taking such actions.
3. Citations or administrative orders – indicate when monetary penalties will be assessed and may include civil and administrative penalties.
4. Stop work orders – requires activities at facilities to be halted except for those activities directed at cleaning up, abating discharges and installing appropriate control measures.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

5. Withholding plan approvals or other authorizations – the ERP may address how the approval process affecting a non-compliance facility's ability to discharge to the MS4 can be used to abate a violation.
6. Civil penalties – the permittee must have the authority to assess the maximum penalties per day for each day of violation as specified in TCA 68-221-1106.
7. Additional measures – the permittee may also use other escalated measures provided under local legal authorities.

The Enforcement Response Plan is described in [Appendix 1](#) and the City's stormwater ordinance.

NPDES Permit Referrals

If the City becomes aware that a construction activity or an industrial activity is discharging to the MS4 in violation of an NPDES permit or does not have the required permit, the City shall notify the Memphis Environmental Field Office of the situation as soon as possible. The City may also pursue enforcement actions under its illicit discharge program.

If the City has not been able to bring an NPDES permitted discharge into compliance through enforcement actions and protocols then the City must notify the Memphis Environmental Field Office.

Enforcement Tracking

The City must track instances of non-compliance. The documentation must include:

1. Name of owner/operator
2. Location of facility
3. Description of violation
4. Required schedule for returning to compliance
5. Description of enforcement response used
6. Accompanying documentation of enforcement response
7. Any referrals
8. Date violation was resolved

Enforcement tracking is further described in [Appendix 1](#).

Requirements for Chronic Violators

The City must identify chronic violators in order to reduce the rate of non-compliance. The City's stormwater ordinance defines chronic violators and outlines how the City plans to apply progressive enforcement to achieve compliance.

Annual Report Requirements

1.	BMP/Activity	Enforcement.
	Primary Contact	Stormwater Coordinator
	Management measure	Develop and implement an enforcement response plan
	Measurable Goal	Track violations and apply progressive enforcement actions to achieve compliance.
	Reporting Requirement	Report number of enforcement actions taken for each enforcement action type.

STORMWATER MONITORING AND PROGRAM EVALUATION

Monitoring Program, Sampling Requirements and Reporting. The Permit requires the City to develop and implement a monitoring and assessment program that provides data and information to identify pollutant sources and aid in determining the effectiveness of the stormwater program. The Permit requires the program be designed to meet the following objectives:

- a. Assess compliance with the permit;
- b. Measure the effectiveness of the City's stormwater management program;
- c. Evaluate stormwater impacts to the receiving waters;
- d. Identify sources of specific pollutants, including nutrients, pathogens, siltation, or other parameters related to stormwater discharges from the MS4; and
- e. Gather data to inform program decisions and prioritization of future activities related to the protection of water quality and identify corrective actions.

The permit provides two options that the City may select from to meet these program requirements. Regardless of which option is chosen, the City *shall perform monitoring as prescribed for stream segments subject to EPA approved TMDLs for streams with unavailable parameters for nutrients, pathogens, or siltation as applicable to the MS4.* The only TMDL applicable to the City of Bartlett is a TMDL for E.coli. The monitoring prescribed by the TMDL requires *analytical monitoring of pollutants of concern (e.g., monthly) in receiving waterbodies, both upstream and downstream of MS4 discharges, over an extended period of time. In addition, intensive collection of pollutant monitoring data during the recreation season (June – September) at sufficient frequency to support calculation of the geometric mean.*

The City has elected to perform monitoring in accordance with option 2 of the Permit. Detailed information concerning the monitoring program is included in [Appendix 1](#).

The primary goal of the City's monitoring program is to identify and eliminate or reduce sources of E.coli and nutrients. Siltation and sedimentation will be monitored as part of the City's construction stormwater pollution prevention program. Table 6.2 lists the affected stream segments and what sampling will be performed for each. The City has no MS4 discharge points on the Loosahatchie River stream segments so no sampling will occur on these segments.

Stream Segment	Stream Name	E.Coli	Nutrients
TN08010209 002-0500	Buckhead Creek	X	X
TN08010210 001-0100	Harrington Creek	X	X
TN08010209 002-0700	Howard Creek	X	X
TN08010209 002-0400	Oliver Creek	X	X
TN08010210 023-0100	Unnamed Tributary to Fletcher Creek	X	N/A
TN08010209 002-1000	Loosahatchie River	N/A	N/A
TN08010209 002-2000	Loosahatchie River	N/A	N/A

Table 6.2 Streams to be Sampled

A secondary goal of the City's monitoring program is to assess the effectiveness of the City's stormwater program as it concerns addressing pollutants of concern. BMPs/activities addressing pathogens and nutrients are summarized in Table 6.3 below. Data collected will be compared to historical data and evaluated for trends and impacts to the receiving waters.

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

BMP/Activity	Pollutants of Concern
Preventing Storm Water Pollution General Education PowerPoint™ Presentation	Sediments, nutrients , pathogens , trash and debris, pesticides, petroleum products
Tennessee Homeowners Guide to Cleaner Water Education Brochure	Sediments, nutrients , pathogens , pesticides, petroleum products, illegal dumping
Pet Waste and Water Quality Education Brochure	Pathogens
Clean Water – Everybody's Business Bookmark	Sediments, nutrients , pathogens , pesticides, petroleum products, illegal dumping
Storm Water Pollution Found in Your Neighborhood door tags	Sediments, nutrients , pathogens , trash and debris, pesticides, petroleum products
FYI Segments on the local cable channel	Varies upon broadcasts. May include one or more of the following: arsenic, sediments, nutrients , pathogens , trash and debris, pesticides, petroleum products, illicit discharges, illegal dumping
Tennessee Stormwater Association Social Media Campaign	Varies. May include one or more of the following: sediments, nutrients , pathogens , trash and debris, pesticides, petroleum products, illicit discharges, illegal dumping

Table 6.3 BMPs for Pathogens and Nutrients

A tertiary goal of the City's monitoring program is to provide data that can be utilized to identify and prioritize future activities related to the protection of water quality.

Additional monitoring may be required to aid in identifying the source of specific pollutants. Detailed information concerning additional monitoring is included in [Appendix 1](#).

Bacteriological stream sampling is performed in streams that have been identified in the State's 303(d) list as having unavailable parameters for pathogens (see [Table 6.2 Streams to be Sampled](#)). Stream sampling is performed utilizing methods identified in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water. At least one sample a month for 12 months will be obtained for each pathogen-impaired stream segment within a five-year period. A set of five samples within a 30 day period will be obtained for that sampling year during the months of June through September. This set of samples will replace the sample required for that month. Detailed information concerning bacteriological sampling is included in [Appendix 1](#).

Nutrient stream sampling is performed in streams that have been identified in the State's 303(d) list as having unavailable parameters for nutrients (see [Table 6.2, Streams to be Sampled](#)). Stream sampling is performed utilizing methods identified in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water. Sampling will be for total nitrogen and total phosphorous. At least one sample a month for 12 months will be obtained for each nutrient-impaired stream segment within a five-year period. A set of five samples within a 30 day period will be obtained for that sampling year during the months of June through September. This set of samples will replace the sample required for that month. At time of publication, the unnamed tributary to Fletcher Creek is not listed as having unavailable parameters for nutrients and will not be sampled. Detailed information concerning nutrient sampling is included in [Appendix 1](#).

Analytical monitoring for stream segments subject to TMDLs shall be performed as prescribed in the TMDL. As of the publication date of the SWMP, EPA approved TMDLs have only been established for E.coli for the Wolf River and the Loosahatchie River. The affected stream segments are identified in [Table 6.2 Streams to be Sampled](#). Although there are no specific monitoring requirements listed in the TMDL, sampling for E.coli as described above meets the

suggested monitoring for E.coli. Future TMDLs will be reviewed to assess their impact on this portion of the SWMP. Detailed information concerning TMDL monitoring is included in [Appendix 1](#).

Visual Stream Surveys (VSSs) shall be performed to satisfy the objectives of evaluating stormwater impacts to the receiving waters and gather data to inform program decisions and prioritization of future activities related to the protection of water quality and identify corrective actions. VSSs will be performed at each outfall to waters of the State. Detailed information concerning the VSSs is included in [Appendix 1](#).

On November 11, 2023, the City of Bartlett was notified that the TDEC Division of Water Resources acknowledged receipt of an acceptable monitoring plan, as described in [Section 10 of Appendix 1](#). Any changes to the monitoring plan will need to be coordinated through TDEC.

Sampling Methods and Procedures The City uses the sampling methods and procedures specified in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water. The Request for Bid will require the successful bidder to use the same protocols. The VSSs shall use a modified version of the State of Maryland Department of Natural Resources visual stream assessment. Sampling methods and procedures are more fully detailed in [Appendix 1](#).

Annual Report Requirements for Monitoring Program. A summary of monitoring activities shall be included in the MS4 annual report to the TDEC. All other records shall be made available to the TDEC upon request.

BMP/Activity	Stormwater Monitoring Program.
Primary Contact	Stormwater Coordinator
Management measure	Perform monitoring in accordance with Stormwater Management Program
Measurable Goal	Perform monitoring in accordance with the approved Option 2 monitoring plan.
Reporting Requirement	Monitoring for the reporting year has been performed in accordance with Option 2; Provide a summary of monitoring results; Upload a copy of all monitoring data.

Stormwater Management Program Evaluation. The permit requires the City to conduct an annual evaluation of the Stormwater Management Program to evaluate compliance with the terms and conditions of the permit, including the effectiveness of the BMPs, components or controls of its stormwater management program and the status of achieving the measurable requirements of the permit. This annual review shall be performed in conjunction with preparing information for the annual report.

BMP/Activity	Stormwater Management Program Evaluation
Primary Contact	Stormwater Coordinator
Management measure	Conduct an annual evaluation of the current Stormwater Management Program for every reporting period
Measurable Goal	Summarize evaluation results.
Reporting Requirement	Provide a narrative description

BMP/Activity	Stormwater Management Program Evaluation
Primary Contact	Stormwater Coordinator
Management measure	Conduct an annual evaluation of the current Stormwater Management Program for every reporting period
Measurable Goal	Identify modifications or replacement of an ineffective

SECTION 6 – STORMWATER MANAGEMENT PROGRAM

	activity/control measure/component/BMP
Reporting Requirement	Provide a narrative description

BMP/Activity	Stormwater Management Program Evaluation
Primary Contact	Stormwater Coordinator
Management measure	Conduct an annual evaluation of the current Stormwater Management Program for every reporting period
Measurable Goal	Summarize the assessment results, any modifications and improvements scheduled to be implemented in the next reporting period to improve the program or remedy weaknesses.
Reporting Requirement	Provide a narrative description

BMP/Activity	Stormwater Management Program Evaluation
Primary Contact	Stormwater Coordinator
Management measure	MCM Status Determination
Measurable Goal	Indicate compliance status for each of the six MCMs and the monitoring program
Reporting Requirement	Compliant with permit requirements? If no, provide more details.

LEGAL AUTHORITY

The permit requires the City to ensure it has legal authority to reduce the discharge of pollutants to the maximum extent practicable (MEP). The legal authority may be a combination of statute, law, rule, ordinance, resolution, permit, contract, or order. That legal authority must:

- a. Prohibit non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
- b. Require erosion and sediment controls as well as sanctions to ensure compliance;
- c. Address post-construction/permanent stormwater runoff from new development and redevelopment projects (**NOTE: This permit requirement has been waived by a Settlement Agreement with TDEC.**)
- d. Obtain remedies for noncompliance, seek injunctive relief, seek or assess penalties and enact the enforcement response plan as required by subpart 4.5 of the Permit;
- e. Require compliance with conditions in ordinance, permits, contract, orders, or other legal authority; and
- f. Conduct all inspections, surveillance, and monitoring activities necessary to determine compliance with the conditions of the Permit.

The City has established legal authority through a combination of a stormwater ordinance, a subdivision ordinance and a plan review process that includes the ability for compliance inspections and monitoring through contract documents and recorded instruments. Specifically:

- a. Section 14-205 of the City's stormwater ordinance prohibits non-stormwater discharges into the storm sewer system. Section 14-211 provides for enforcement response and abatement. Attachment 1 of the stormwater ordinance contains a table of initial assessments the City may impose for violations.
- b. Section 14-206(11) of the City's stormwater ordinance requires the appropriate erosion prevention and sediment control BMPs are in place before construction begins. Section 14-211 provides for enforcement response and abatement. Attachment 1 of the stormwater ordinance contains a table of initial assessments the City may impose for violations.
- c. Although a settlement agreement with TDEC waives the requirements for post-construction/permanent stormwater runoff from new development and redevelopment

- projects, Sections 14-206 and 14-207 of the City's stormwater ordinance address this requirement.
- d. Section 14-211 addresses the possible responses the City may employ for noncompliance. This section provides the City with the ability to refer noncompliance to TDEC, provide for the implementation of administrative remedies, apply civil and administrative penalties and provide for injunctive relieve through the Shelby County General Sessions Environmental Court.
 - e. Section 14-206(11) requires compliance with applicable permit requirements, federal, state or local requirements and all applicable requirements of the ordinance.
 - f. Sections 14-207, 14-208 and 14-209 of the City's stormwater ordinance provides for the inspections, surveillance and monitoring activities as required to meet the requirements of the Permit.

Annual Report Requirements for Legal Authority.

BMP/Activity	Legal Authority
Primary Contact	Stormwater Coordinator
OCR	City Attorney
Management measure	Provide a signed solicitor's certification statement
Measurable Goal	Statement contains name of the attorney. Confirm that the City has the adequate authority to carry out the Stormwater Management Program. List the documents that give the City that authority. Specifies the document and location of the specified authorities.
Reporting Requirement	Statement required in the 2024 annual report and when modifications are made to the legal authority.

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ANNUAL REPORTING PERIOD, DUE DATE AND SIGNATORY REQUIREMENT

The City of Bartlett must submit an annual report for the period beginning July 1st and ending June 30th.

- a. The report is due no later than September 30th following the reporting period.
- b. The report must be signed by the ranking elected official for the City.
- c. The report shall be submitted electronically through MyTDECForms (<https://forms.tdec.tn.gov/>).
- d. To utilize the reporting system, the report preparer, reviewer and signatory must establish a user account with the MyTDECForms reporting system.

ANNUAL REPORTING REQUIREMENTS

Annual Report Required Information
- All reporting elements as indicated in the permit including the information noted in the “Annual Report Requirement” column of the tables in Part 4 of the permit, information noted in narrative format. - The status of compliance with permit terms and conditions; - Notice that the permittee is relying on another governmental entity to satisfy some of the permit obligations (if applicable); and - Any other data specifically requested by the Division to substantiate statements and conclusions reached in the Annual Reports.

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RECORDS RETENTION

The Permit requires the City to retain all records associated with the City's stormwater management program for a minimum of three years. Examples of records to be retained include but are not limited to:

- a. Records of all monitoring information including:
 - 1. The date, exact place and time of sampling
 - 2. The individual(s) who performed the sampling
 - 3. The date analyses were performed
 - 4. The individual(s) who performed the analyses
 - 5. The laboratory where the analyses were performed
 - 6. The analytical techniques or methods used
 - 7. The results of such analyses
- b. Stormwater Management Program documentation;
- c. Reports required by the Permit; and
- d. Records of all data used to complete the NOI and the NOT.

The City has elected to retain records that may be necessary for TDEC audit or inspection purposes for a longer period of time.

ELECTRONIC SUBMISSION OF DOCUMENTS

The Permit requires the submission of forms developed by the TDEC in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permit coverage. The TDEC may make these forms available electronically. Electronic submission is required when available unless waived by the TDEC.

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Appendix 1

STORMWATER MANAGEMENT PROGRAM

Appendix 1, Stormwater Management Program, is also maintained in a separate binder labeled “Stormwater Management Program”. This binder is available for review at the City of Bartlett Department of Engineering and Utilities during normal business hours. The Program is also available for viewing and downloading at the City of Bartlett official web site:

<https://www.cityofbartlett.org/DocumentCenter/View/15066/2017-Storm-Water-Management-Program?bidId>

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City of Bartlett

Shelby County, Tennessee

Stormwater Management Program



Prepared by:

City of Bartlett
Department of Engineering and Utilities
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Bartlett TN 38134-3739

John Horne, Director
David Cook, Stormwater Coordinator

September 1, 2024

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TABLE OF CONTENTS

SECTION 1 – INTRODUCTION

AUTHORITY	1-9
PURPOSE	1-9
REQUIREMENTS	1-9
RESPONSIBILITIES	1-10

SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS	1-13
PUBLIC INFORMATION AND EDUCATION PLAN	1-13
PUBLIC EDUCATION AND OUTREACH	1-13
ENGINEERING AND DEVELOPMENT COMMUNITY EDUCATION AND OUTREACH	1-21
EMPLOYEE EDUCATION AND OUTREACH	1-24

SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

MINIMUM PROGRAM REQUIREMENTS	1-29
GENERAL PUBLIC	1-34
COMMERCIAL AND DEVELOPMENT COMMUNITY	1-38

SECTION 4 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

MINIMUM PROGRAM REQUIREMENTS	1-45
DRY WEATHER OUTFALL RECONNAISSANCE	1-47
MANAGEMENT MEASURES, GOALS AND ANNUAL REPORT REQUIREMENTS	1-48

SECTION 5 – CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

MINIMUM PROGRAM REQUIREMENTS	1-51
MANAGEMENT MEASURES, GOALS AND ANNUAL REPORT REQUIREMENTS	1-55

SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

MINIMUM PROGRAM REQUIREMENTS	1-59
PERMANENT STORMWATER STANDARDS	1-59
STORMWATER MITIGATION AND PUBLIC STORMWATER FUND	1-60
WATER QUALITY RIPARIAN BUFFERS	1-60
CODES AND ORDINANCES REVIEW AND UPDATE	1-61
DEVELOPMENT PROJECT PLAN REVIEW, APPROVAL AND ENFORCEMENT	1-61
MAINTENANCE OF PERMANENT STORMWATER CONTROL ASSESTS	1-62

**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
TABLE OF CONTENTS**

<u>INVENTORY AND TRACKING OF PERMANENT STORMWATER CONTROL MEASURE ASSETS</u>	1-63
SECTION 7 – POLLUTION PREVENTION/GOOD HOUSEKEEPING	
<u>EMPLOYEE TRAINING</u>	1-65
<u>OPERATIONS AND MAINTENANCE PROGRAM</u>	1-65
SECTION 8 – STORMWATER MANAGEMENT PROGRAM MODIFICATION	
<u>MINOR MODIFICATION</u>	1-67
<u>MAJOR MODIFICATION</u>	1-67
<u>TRANSFER OF OWNERSHIP, OPERATIONAL AUTHORITY OR RESPONSIBILITY</u>	1-67
SECTION 9 – ENFORCEMENT	
<u>STORMWATER ORDINANCE</u>	1-69
<u>ENFORCEMENT ACTIONS</u>	1-69
<u>NPDES PERMIT REFERRALS</u>	1-70
<u>ENFORCEMENT TRACKING</u>	1-70
<u>REQUIREMENTS FOR CHRONIC VIOLATORS</u>	1-71
<u>ANNUAL REPORT REQUIREMENTS</u>	1-71
SECTION 10 – STORMWATER MONITORING AND PROGRAM EVALUATION	
<u>MONITORING PROGRAM, SAMPLING REQUIREMENTS & REPORTING</u>	1-73
<u>STORMWATER MANAGEMENT PROGRAM EVALUATION</u>	1-76
TABLES	
<u>TABLE 1 MINIMUM CONTROL MEASURES IMPLEMENTATION TIMELINES</u>	1-10
<u>Table 2-1 PUBLIC EDUCATION AND OUTREACH ACTIVITIES AND MANAGEMENT MEASURES</u>	1-21
<u>TABLE 2-2 ENGINEERING AND DEVELOPMENT COMMUNITY EDUCATION AND OUTREACH ACTIVITIES AND MANAGEMENT MEASURES</u>	1-24
<u>TABLE 2-3 EMPLOYEE EDUCATION AND OUTREACH ACTIVITIES AND MANAGEMENT MEASURES</u>	1-28
<u>TABLE 3-1 GENERAL PUBLIC INVOLVEMENT/PARTICIPATION ACTIVITIES AND MANAGEMENT MEASURES</u>	1-28
<u>TABLE 3-2 COMMERCIAL AND DEVELOPMENT COMMUNITIES INVOLVMENT/PARTICIPATION ACTIVITIES AND MANAGEMENT MEASURES</u>	1-44
<u>TABLE 10-1 STREAMS TO BE SAMPLED</u>	1-73
<u>TABLE 10-2 POLLUTANTS OF CONCERN AND SOURCE IDENTIFICATION FROM 303(D) LIST</u>	1-73

ATTACHMENTS

1	Outfall Reconnaissance Inventory Report	1-79
2	Outfall Reconnaissance Inventory Procedures	1-83
3	Stormwater Inspection Report	1-91
4	Municipal Training Sign-in Sheet Sample	1-93
5	Fixed Facility Inventory Sample	1-99
6	Standard Operating Procedures	1-103
7	Visual Stream Survey Report	1-129

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SECTION 1 – INTRODUCTION

AUTHORITY

The City of Bartlett Stormwater Management Program (the Program) is established as required by section four of the Tennessee National Pollutant Discharge Elimination System (NPDES) general permit for small municipal separate storm sewer systems (MS4s), referred herein as the Permit. The Program is included as an appendix to the City of Bartlett Stormwater Management Plan (SWMP or the Plan) and is designed to function independently of the SWMP. Assessment of civil penalties for ordinance violations is authorized pursuant to TCA 68-221-1106. Other documents become part of the Program by reference. Addition of components, controls, or requirements and replacement of an ineffective or infeasible best management practice (BMP) or stormwater control measures (SCMs) with an alternate BMP/SCM expected to achieve the goals of the original BMP/SCM shall be considered a minor change and are made upon approval of the Program Manager. Other changes shall be in accordance with the provisions of section 4.4 of the Permit. The Director for the Department of Engineering and Utilities and, in the event of the Director's absence or a vacancy in the office of the Director, the Deputy Director, is responsible for the overall management of the Stormwater Management Program and is referred to in this document as the Program Manager or Manager. The City's Stormwater Coordinator is responsible for the day-to-day management of the program. Other department directors shall be responsible for the implementation of policies and procedures contained in the Program within their departments. Some elements of the Program are implemented under authority of the City of Bartlett stormwater ordinance, subdivision regulation and zoning ordinance.

PURPOSE

The purposes of the Program are:

1. To reduce the discharge of pollutants to the maximum extent practicable (MEP).
2. To protect water quality.
3. To satisfy the appropriate water quality requirements of the federal Clean Water Act of 1972.
4. Implement the requirements of the Permit.

REQUIREMENTS

Section 4.1 of the Permit requires the City of Bartlett to “*develop, implement, and enforce a Stormwater Management Program as described below (Section 4 of the Permit) and according to 40 CFR §§122.30-122.37 to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The Program shall include engineering methods, system design, control techniques and/or management practices appropriate for the control of pollutants of concern.*” This section of the SWMP outlines the City of Bartlett's Stormwater Management Program and the policies and procedures used to implement the minimum control measures and requirements of section 4.2 of the Permit. Where policies and procedures have yet to be developed, the Program outlines the plan to develop, implement and enforce the minimum control standards.

Further, section 4.2 of the Permit requires that the Stormwater Management Program include six minimum control measures:

1. Public education and outreach on stormwater impacts.
2. Public involvement/participation.
3. Illicit discharge detection and elimination (IDDE).
4. Construction site stormwater runoff control.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM

SECTION 1 – INTRODUCTION

5. Post-construction/permanent stormwater management in new development and redevelopment.
6. Pollution prevention/good housekeeping.

The activities/BMPs from one minimum control measure may apply to multiple minimum control measures. Those activities/BMPs will only be described once and cross referenced from the applicable sections.

The Permit requires all elements of the minimum control measures to be in place upon the effective date of the permit with the exception of those items listed in the table below:

Permit Requirement	Description	Implementation Date
Legal Authority e.g. Ordinance Updates	All updates to the legal authority required by changes to the Permit shall be fully implemented and adopted	As soon as possible in conjunction with the permanent stormwater legal authority (not to exceed 24 months from the effective date of the Permit). (September 1, 2024)
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of the NPDES general permit for construction stormwater runoff effective October 1, 2021.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 24 months of the effective date of the permit. (October 1, 2023)
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of any reissued NPDES general permit for construction storm water runoff with an effective date after September 30, 2026.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 18 months of the effective date of the NPDES general permit for construction stormwater runoff.
4.2.5	Implementation of permanent stormwater management program.	Either the effective date of the notice of coverage or as specified in the implementation plan (not to exceed 24 months from the effective date of the permit NOTE: This permit requirement has been waived by a Settlement Agreement with TDEC.
4.2.5.1d	Submit implementation plan for permanent stormwater management program	90 days from the effective date of the permit. NOTE: This permit requirement has been waived by a Settlement Agreement with TDEC.
4.6.1.1.2	Only required if Option 2 is selected, A proposed alternate monitoring plan must be submitted to the Nashville Central Office at Water.Permits@tn.gov	24 months from the Effective Date of the permit. (September 1, 2024)

Table 1 Minimum Control Measures Implementation Time-line

RESPONSIBILITIES

Section 4.1(d) of the Permit requires the Program to identify by name, job title or department those with the responsibility for implementing or coordinating the Program elements.

Office of Primary Responsibility (OPR). An OPR identified in the Stormwater Management Program has the primary responsibility for development and implementation of the Program or

element of the Program assigned. This includes providing feedback and data to the City's Stormwater Coordinator for inclusion in the annual report to TDEC. The Department of Engineering and Utilities is tasked with the overall management of the City of Bartlett's Stormwater Management Program.

Office of Collateral Responsibility (OCR). An OCR identified in the Stormwater Management Program has the responsibility for assisting the OPR in meeting the objectives of the Program or elements of the Program. The OCR may be required to assist in development and implementation of portions of the Program or elements within their operational control and provide feedback and data to the Stormwater Coordinator for inclusion in the annual report to TDEC. OCRs, and departments not specifically listed as OPR or OCR for Program elements that must be implemented by or affect their departments, shall establish procedures to implement those portions of the Program elements and provide the required data to the City's Stormwater Coordinator for inclusion in the annual report to TDEC.

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Section 2 - Public Education and Outreach on Stormwater Impacts

Section 4.2.1 of the Permit requires *“Permittees shall develop and implement an education and outreach program that includes public education and outreach on stormwater impacts as a component of the stormwater management program. The objective of this program is to reduce or eliminate behaviors and practices that cause or contribute to the impacts of stormwater discharges on water bodies and the steps the audiences can take to reduce pollutants in stormwater runoff to the maximum extent practicable. This program must be designed to reach three major audiences, (1) the public (4.2.1.1), (2) engineering and development community (4.2.1.2) and (3) employees (4.2.1.3). Some elements of this section overlap with elements of other sections of the Stormwater Management Program and will not be repeated in those sections. When applicable, those elements shall be referenced.*

2.1 Public Information and Education Plan (OPR: Engineering). The Permit requires the City of Bartlett to develop a Public Information and Education Plan (PIE). *“The plan shall include:*

2.1.1 Specific public information/education activities that are designed to meet management measures. The management measures are specified in the Permit and addressed in [section 2.2 Public Education and Outreach](#) and [section 2.3 Engineering and Development Community Education and Outreach](#) below. Each activity/BMP described shall specify which management measure it addresses. The activity/BMP may address more than one of the management measures.

2.1.2 Identification of job categories and applicable management measures for employee education. The management measures are specified in the Permit and are addressed in [section 2.4 Employee Education and Outreach](#) below. The specific job categories are for those employees assigned in the work areas listed here and are actively involved with handling potential stormwater pollutants. Administrative or other support/staff positions assigned to these work areas are not included.

2.1.2.1 Public Works Fleet Services

2.1.2.2 Public Works Solid Waste

2.1.2.3 Public Works Grounds Maintenance

2.1.2.4 Public Works Water & Wastewater Services/General Maintenance

2.1.2.5 Parks Maintenance

2.1.3 Schedule/calendar of events for each year. Those activities/BMPs that occur on a recurring basis shall be shown in the Program with the approximate month or time of year they are to take place. For instance, TNSA social media outreach occurs twice monthly and the Bartlett Fall Festival annually in September/October. Other activities, such as pre-application and pre-construction meetings, occur on an as required or as needed basis.

2.1.4 Methodology to evaluate components to assess overall effectiveness and need for improvement. Methodologies to evaluate components to assess overall effectiveness and need for improvement of elements of the PIE are included in the description of that element. It is expected that some elements of the plan will lack an effective methodology without further guidance from the TDEC and the EPA.

2.2 Public Education and Outreach. The Permit requires the City to conduct or sponsor a minimum of six (6) activities that address each of the management measures for the public audience portion of the PIE each reporting year. The total number of activities conducted are to be reported in the annual report including a description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached. For activities that are only sponsored, such as the TNSA Social Media Campaign, identify if the

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

event was sponsored monetarily or as a donation in kind. A Public Education and Outreach spreadsheet has been created to track this information and is located in the Stormwater Management Program file on the Department of Engineering's shared computer server.

- 2.2.1 Management Measures. The Permit identifies four management measures that Public Education and Outreach activities are to address. Some activities may address only one measurement while another may address all four. The goal is to address each management measure at least once during the reporting year. Those management measures are:

2.2.1.1 General awareness of the impacts on water quality

2.2.1.2 Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs. **NOTE: Under a settlement agreement with the TDEC, portions of the permit concerning permanent BMPs/SCMs are not applicable to the City of Bartlett. This management measure will not be addressed pending issuance and settlement of a Phase 1 permit for the City of Memphis that requires permanent SCMs.**

2.2.1.3 Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids

2.2.1.4 Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

2.2.2 Activities/BMPs. This section outlines the activities/BMPs that the City of Bartlett will use to address the management measures specified in the Permit for Public Education and Outreach. Each activity/BMP identifies the OPR and, if applicable, the OCR for that activity. Additionally, each management measure the activity/BMP addresses is identified as well as when the activity is expected to occur. If there is a method to evaluate the effectiveness of the activity/BMP, it is described.

2.2.2.1 *City of Bartlett official website (OPR: Engineering) (OCR: Information Technology (IT)).* The City's official website has a section dedicated to public education and outreach (<https://www.cityofbartlett.org/916/Public-Education-and-Outreach>). In addition to an overview of general water pollution awareness, the web page contains links to Public Service Announcements (PSAs); permanent BMP awareness; ordinance, regulation and guidance materials; chemical applicator awareness; automotive fluid awareness; illicit discharge awareness & reporting; construction guide to cleaner water brochure; homeowner's guide to clean water brochure; pet waste & water quality brochure; landscaping, gardening & pest control brochure; food service industry brochure; heavy equipment and earth moving activities brochure; detention basin maintenance brochure; home repair & remodeling brochure; public education videos; and watershed descriptions. The targeted audience is internet users.

2.2.2.1.1 Management measures addressed by this activity are general awareness of impacts on water quality, awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs, awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

2.2.2.1.2 This activity is continuous.

2.2.2.1.3 The methodology to assess overall effectiveness of this activity is to request the City's IT department provide a history of how many times the website was visited

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

during the reporting period. The history will be requested by the Stormwater Coordinator during preparation of the annual report.

- 2.2.2.1.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

2.2.2.2 *Stormwater Education Booth (OPR: Engineering)*. The Bartlett Fall Festival is an event held each year (normally the last weekend in September). The Stormwater Management Division sponsors a stormwater booth at the festival. Stormwater personnel make themselves available to festival goers to answer questions, accept complaints, distribute stormwater pollution prevention related literature and products and to administer the Stormwater Quiz.

- 2.2.2.2.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

2.2.2.2.2 This activity is scheduled to occur annually during the Bartlett Fall Festival in September/October. This activity may also occur at other times depending upon the event.

2.2.2.2.3 The methodology to assess overall effectiveness of this activity is to track the number of people who have taken the Stormwater Quiz. The quiz is five questions related to stormwater quality impacts with a prize for each correct answer to reinforce the lesson learned. If a question is answered incorrectly, the correct answer is provided immediately and an explanation provided as to why it is the correct answer.

- 2.2.2.2.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

2.2.2.3 *Preventing Stormwater Pollution PowerPoint™ presentation (OPR: Engineering)*. This presentation is made available for presentation at Homeowners Association meetings. It may be presented at other events when requested. An email is sent annually (July) to the homeowners associations informing them of the availability of this presentation and asking them to consider having it presented at their annual meetings. Topics include what stormwater run-off is, pollutants that can typically be found in the run-off, sources of those pollutants and what they can do to reduce or eliminate those pollutants. The target audience is homeowners associations and their members. The targeted pollutants are sediments, nutrients, pathogens, pesticides, petroleum products and illegal dumping.

- 2.2.2.3.1 The management measures addressed by this activity are general awareness of impacts on water quality and awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids.

2.2.2.3.2 This activity is expected to occur on an annual basis throughout the period of the permit, subject to invitations from the individual homeowners associations. Scheduling of this activity will be accomplished by the Stormwater Coordinator in coordination with the requesting homeowner association.

2.2.2.3.3 The methodology to assess overall effectiveness of this activity is to ask a question concerning some element of the presentation before it is presented and ask the

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

same question at the conclusion of the presentation. More people should be able to answer the question at the conclusion of the presentation.

2.2.2.3.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

2.2.2.4 *Tennessee Homeowner's Guide to Cleaner Water pamphlet (OPR: Engineering) (OCR: Water Department).* This pamphlet is used to provide general public awareness of general housekeeping maintenance/activities that can reduce or eliminate stormwater runoff pollution. Topics include minimizing pesticide use, composting, car washing, pet waste, fertilizer use, sediment control, and household hazardous waste disposal. The pamphlet is included with the Community Information Package distributed to each new City of Bartlett water customer. Pamphlets are also prominently displayed in the city hall building adjacent to the reception desk. The pamphlet is available on the City of Bartlett official website in the Stormwater Management Division section. A pamphlet is also sent to homeowners with any correspondence dealing with stormwater pollution prevention such as notice of violations. The target audience is homeowners and renters. The targeted pollutants are sediments, nutrients, pathogens, pesticides and petroleum products.

2.2.2.4.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids.

2.2.2.4.2 This activity is expected to occur on a semi-annual basis throughout the period of the permit, with pamphlets being distributed to City Hall in July and January of each reporting period. Pamphlets included with the city welcome packages will be distributed to new water customers as they register with the City's water department.

2.2.2.4.3 The methodology to assess overall effectiveness of this activity is tracking how many pamphlets are distributed at City Hall and with violation investigations.

2.2.2.4.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

2.2.2.5 *Pet Waste & Water Quality pamphlet (OPR: Engineering) (OCR: Water Department).* This pamphlet is used to provide general public awareness of pet waste impacts upon the quality of stormwater runoff. Topics include an explanation of what stormwater runoff is, pathogens found in pet waste and what the pet owner can do to reduce the pathogens in stormwater runoff. The pamphlet is included in the Community Information Package distributed to each new City of Bartlett water customer. The pamphlet is available on the City of Bartlett official website in the Stormwater Management Division section. It is also distributed to each animal clinic and animal hospital within the City of Bartlett, including the City of Bartlett Animal Shelter. Local clinics include the Wolfchase Animal Hospital, Gentle Care Animal Hospital, Petvax, Hillcrest Animal Hospital, Family Veterinary Practice and Community Pet Hospital. The target audience is pet owners. The targeted pollutant is pathogens.

2.2.2.5.1 Management measure addressed by this activity is general awareness of impacts on water quality.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

- 2.2.2.5.2 This activity is expected to occur on a semi-annual basis throughout the period of the permit, with pamphlets being distributed in July and January of each reporting period. Pamphlets included with the city welcome packages will be distributed to new water customers as they register with the City's water department.
- 2.2.2.5.3 The methodology to assess overall effectiveness of this activity is tracking how many pamphlets are distributed.
- 2.2.2.5.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.6 *Clean Water – Everybody's Business bookmarks (OPR: Engineering)*. This bookmark is used to provide general public awareness of ten things that can be done to reduce or eliminate stormwater runoff pollution. Topics include fertilizer use, car washing, sediment control, illegal dumping, composting, pesticide use, infiltration, vehicle maintenance, pet waste and septic system maintenance. The bookmarks are distributed to the City of Bartlett Library for distribution to library patrons. The target audience is library patrons.
- 2.2.2.6.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids.
- 2.2.2.6.2 This activity is expected to occur on a semi-annual basis throughout the period of the permit, with bookmarks being distributed in July and January of each reporting period.
- 2.2.2.6.3 The methodology to assess overall effectiveness of this activity is tracking how many bookmarks are distributed.
- 2.2.2.6.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.7 *City of Bartlett Official Social Media Platforms (OPR: Engineering) (OCR: Community Relations)*. The City's official social media platforms are managed by the Chief Communications Officer. The Stormwater Coordinator may request public service announcements (PSAs) be posted on the City's social media platforms. The subject matter of the PSAs vary and may include sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, and illegal dumping. The target audience is social media users.
- 2.2.2.7.1 Management measures addressed by this activity vary depending upon the PSA and may address general awareness of impacts on water quality, awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs, awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 2.2.2.7.2 This activity is expected to occur at least once per reporting period.
- 2.2.2.7.3 There has been no methodology established to assess overall effectiveness of this activity but the number of social media PSAs concerning water quality impacts shall

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

be tracked. A methodology that more adequately measures the effectiveness of this program element may be established in the future based upon guidance provided from the TDEC or the EPA.

- 2.2.2.7.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

2.2.2.8 *Tennessee Stormwater Association (TNSA) Statewide Social Media Campaign (OPR: Engineering)*. This program produces and broadcast PSAs to promote water quality efforts and provide citizens with the understanding of the various sources of water pollution, along with good steward tips the public can do to help protect water resources. The PSAs are posted on the TNSA's Facebook page with links provided to the MS4 stormwater program elements. The PSAs are also posted on TNSA's Twitter and Instagram accounts. The target audience is social media users. The City of Bartlett supports this program element monetarily at the amount specified for the size of the MS4.

- 2.2.2.8.1 Management measures addressed by this activity vary depending upon the PSA and may address general awareness of impacts on water quality, awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs, awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

- 2.2.2.8.2 This activity is scheduled to occur twice monthly throughout the reporting period.

- 2.2.2.8.3 The methodology to assess overall effectiveness of this activity is tracking how many "clicks" or "hits" are made. This information is provided by the TNSA in a quarterly report.

- 2.2.2.8.4 This program is administered by the TNSA. A report is provided to the City of Bartlett detailing the number "hits" or "clicks" made for a particular ad. A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached (hits) will be documented on the Public Education and Outreach spreadsheet.

2.2.2.9 *Detention Basin Maintenance Brochure (OPR: Engineering)*. This brochure is used to provide owners of detention basins with general information concerning the importance of detention basins for stormwater pollution control and provides information on how to properly maintain them. The brochure is also available on the City of Bartlett's official website. The target audience is owners of basins.

- 2.2.2.9.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs.

- 2.2.2.9.2 This activity is not a recurring activity and is expected to occur on an as needed basis.

- 2.2.2.9.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

- 2.2.2.9.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.10 *Automotive Maintenance and Care Brochure (OPR: Engineering)*. This brochure is used to provide professional automotive repair facilities, parts stores and motor vehicle owners with general information concerning the impact of automotive fluids on the environment and provides information on how to reduce or eliminate those impacts. The brochure is also available on the City of Bartlett's official website. The target audiences are gas stations, auto repair shops, auto body shops, car dealerships, mobile fleet managers, mobile fleet washers and motor vehicle owners.
- 2.2.2.10.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of the proper storage, use and disposal of oil and other automotive fluids.
- 2.2.2.10.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 2.2.2.10.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.2.2.10.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.11 *Illicit Discharge Detection and Elimination Handout (OPR: Engineering)*. A handout duplicating the information available on the City's official website is distributed at homeowners association meetings and the City of Bartlett Fall Festival. The target audience is homeowner association members and festival attendees.
- 2.2.2.11.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 2.2.2.11.2 This activity occurs annual during the Bartlett Fall Festival in September/October and homeowner association meetings when requested.
- 2.2.2.11.3 There has been no methodology established to assess overall effectiveness of this activity but the number of handouts distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.2.2.11.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.12 *IDDE – A Grate Concern Video (OPR: Engineering) (OCR: Community Relations)*. A video series posted on the City's official social media platforms that delivers the essential message the community needs about Illicit Discharge Detection and

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

Elimination including understanding illicit discharges, the damage they can do, what they look like, how to recognize them and what citizens can do to help eliminate them. The target audience is social media users.

- 2.2.2.12.1 Management measures addressed by this activity are general awareness of impacts on water quality and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 2.2.2.12.2 This activity is expected to occur once per reporting period.
- 2.2.2.12.3 There has been no methodology established to assess overall effectiveness of this activity but the number of postings shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.2.2.12.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.13 *Stormwater Pollution Found in Your Neighborhood Door Tags (OPR: Engineering).* These tags are used in neighborhoods where a stormwater pollution incident has occurred that cannot be traced to an individual. The tags inform the homeowners in the area of the major watershed they live in and describe the type of pollutant found in the area. Contact information is provided for reporting pollutants, an explanation of what stormwater runoff is and some simple things that can be done around the home to reduce or eliminate stormwater runoff pollution. The target audience is homeowners living in the area where a stormwater pollutant had been reported/discovered. The targeted pollutants are automotive fluids, paints, solvents, cooking grease, detergents, home improvement waste, pathogens, nutrients and trash.
- 2.2.2.13.1 Management measures addressed by this activity are general awareness of impacts on water quality, awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 2.2.2.13.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 2.2.2.13.3 There has been no methodology established to assess overall effectiveness of this activity but the number of door tags distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.2.2.13.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.14 *Keep Bartlett Beautiful Day (OPR: Parks).* This event is partnered with the City's City Beautiful Commission and involves a community effort to pick up trash and other types of stormwater pollutants in four of the City's largest parks, W.J. Freeman Park, Nesbit Park, Ellendale Park and Stoneridge Park. Volunteers are requested through the various notification methods described in section 3 as well as the Park's Department official web page.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

- 2.2.2.14.1 Management measures addressed by this activity is general awareness of impacts on water quality.
- 2.2.2.14.2 This event is scheduled to occur once per reporting period, usually in April.
- 2.2.2.14.3 There has been no methodology established to assess overall effectiveness of this activity but the number of participants will be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.2.2.14.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.
- 2.2.2.15 RESERVED FOR FUTURE USE.

Activity/BMP	Management Measure			
	A	B	C	D
City of Bartlett official website	X	X	X	X
Stormwater Education Booth	X			X
Preventing Stormwater Pollution PowerPoint™ presentation	X		X	
Tennessee Homeowner's Guide to Cleaner Water pamphlet	X		X	
Pet Waste & Water Quality pamphlet	X			
Clean Water – Everybody's Business bookmarks	X		X	
City of Bartlett Official Social Media Platforms	X	X	X	X
TNSA Social Media Campaign	X	X	X	X
Detention Basin Maintenance Brochure	X	X		
Automotive Maintenance and Care Brochure	X		X	
Illicit Discharge Detection and Elimination Handout	X			X
IDDE – A Grate Concern Video	X			X
Stormwater Pollution Found in Your Neighborhood Door Tags	X		X	X
Keep Bartlett Beautiful Day	X			
A = General awareness of the impacts on water quality				
B = Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs				
C = Awareness of the proper storage, use and disposal of pesticides, herbicides, fertilizers and oil and other automotive fluids				
D = Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.				

Table 2-1 Public Education and Outreach Activities and Management Measures

- 2.3 **Engineering and Development Community Education and Outreach (OPR: Engineering).** The Permit requires the City to conduct or sponsor a minimum of two (2) activities that address each of the management measures for the engineering and development portion of the PIE each reporting year. The total number of activities conducted are to be reported in the annual report including a description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached. An Engineering and Development Community Education and Outreach spreadsheet has been created to track this information and is located in the Stormwater Management Program file on the Department of Engineering's shared computer server.
- 2.3.1 Management Measures The Permit identifies two (2) management measures that Engineering and Development Education and Outreach activities are to address. Some activities may address only one measurement while another may address both. The goal

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

is to address each management measure at least once during the reporting year. Those management measures are:

2.3.1.1 Awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts; and

2.3.1.2 Awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.

2.3.2 Activities/BMPs This section outlines the activities/BMPs that the City of Bartlett will use to address the management measures specified in the Permit for Engineering and Development Community Education and Outreach. Each activity/BMP identifies the OPR and, if applicable, the OCR for that activity. Additionally, each management measure the activity/BMP addresses is identified as well as when the activity is expected to occur. If there is a method to evaluate the effectiveness of the activity/BMP, it is described.

2.3.2.1 *City of Bartlett official website (OPR: Engineering) (OCR: IT)*. The City's official website has a page dedicated to stormwater ordinance, regulations and guidance material awareness (<https://www.cityofbartlett.org/1084/Ordinance-Regulation-Guidance-Material>). Specific topics include the City's stormwater ordinance, the City's subdivision regulation, the Tennessee construction general permit, the TDEC Erosion Prevention and Sediment Control Handbook, local stormwater design manuals as well as links to websites concerning low impact development. The target audience is the local engineering and development community.

2.3.2.1.1 Management measures addressed by this activity are awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts; and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts. The specific goal of the program is to provide guidance material awareness to the local engineering and development community and users of the City's website.

2.3.2.1.2 This activity occurs continuously.

2.3.2.1.3 The methodology to assess overall effectiveness of this activity is to request the City's IT department provide a history of how many times the website was visited during the reporting period. The Stormwater Coordinator shall ask for the history during the preparation of the annual report.

2.3.2.1.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Engineering and Development Education and Outreach spreadsheet.

2.3.2.2 *Pre-application meetings (OPR: Engineering) (OCR: Planning)*. Pre-application meetings are conducted prior to the formal process of project plan application and approval. These meetings are normally requested by the engineer/developer to gather the requirements for development or construction for a particular parcel.

2.3.2.2.1 Management measures addressed by this activity are awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts; and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.

2.3.2.2.2 This activity is not a recurring activity and is expected to occur on an as needed basis.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

- 2.3.2.2.3 There has been no methodology established to assess overall effectiveness of this activity but the number of meetings conducted shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.3.2.2.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Engineering and Development Education and Outreach spreadsheet.
- 2.3.2.3 *Mid-South Clean Waters Day (OPR: TNSA) (OCR: Engineering)* This activity is sponsored through TNSA. The activity involves workshops with various topics related to water quality impacts from construction activities as well as the guidance material related to minimizing those impacts. The activity includes a demonstration of the various BMPs that can be utilized to minimize the impacts construction has on water quality. Local MS4 stormwater personnel are invited to participate/co-sponsor these activities.
- 2.3.2.3.1 Management measures addressed by this activity vary but may include awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts; and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.
- 2.3.2.3.2 This activity is a recurring event expected to occur once every two years, usually in April, during the term of the Permit.
- 2.3.2.3.3 There has been no methodology established to assess overall effectiveness of this activity but the number of attendees shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA
- 2.3.2.3.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Engineering and Development Education and Outreach spreadsheet.
- 2.3.2.4 *Engineering and Development Community mailing list (OPR: Engineering).* The Manager maintains an electronic mailing list for local engineers and developers. The Stormwater Coordinator may request the Manager, or the Manager may elect to disseminate pertinent information to those on the listing.
- 2.3.2.4.1 Management measures addressed by this activity vary but may include awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts; and awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts
- 2.3.2.4.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 2.3.2.4.3 There has been no methodology established to assess overall effectiveness of this activity but the number of emails sent shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 2.3.2.4.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Engineering and Development Education and Outreach spreadsheet.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

Activity/BMP	Management Measure	
	A	B
City of Bartlett official website	X	X
Pre-application meetings	X	X
Mid-South Clean Waters Day	X	X
Engineering and Development Community mailing list	X	X
A = Awareness of the stormwater ordinances, regulations and guidance materials related to long-term water quality impacts		
B = Awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts		

Table 2-2 Engineering and Development Community Education and Outreach Activities and Management Measures

2.4 Employee Education and Outreach (OPRs: Engineering) (OCRs: Public Works and Parks Department). The Permit requires the City to conduct activities that address each of the management measures for the employee portion of the PIE within six months of an employee's assignment to an applicable job category (see section 2.1) and then again at least once per permit cycle. The total number of new employees not trained within six months and the total number of employees not retrained within the permit cycle shall be reported in the annual report.

2.4.1 Management Measures. The Permit identifies three (3) management measures that Employee Education and Outreach activities are to address. Some activities may address only one measurement while another may address all three. The goal is to address each management measure at least once during the permit cycle. Those management measures are:

2.4.1.1 Awareness of water quality impacts from daily operations;

2.4.1.2 Pollution prevention and good housekeeping; and

2.4.1.3 Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc.

2.4.2 Activities/BMPS This section outlines the activities/BMPs that the City of Bartlett will use to address the management measures specified in the Permit for Employee Education and Outreach. Each activity/BMP identifies the OPR and, if applicable, the OCR for that activity. Additionally, each management measure the activity/BMP addresses is identified as well as when the activity is expected to occur. If there is a method to evaluate the effectiveness of the activity/BMP, it is described.

2.4.2.1 Public Works Fleet Services Stormwater Training (OPR: Public Works) (OCR: Engineering). Fleet Services Stormwater Training consists of a suite of training material including the Fleet Maintenance Stormwater Pollution Prevention Training PowerPoint presentation, Stormwater Training for Municipal Employees – Part 1 YouTube, Vehicle Maintenance YouTube and Illicit Discharge Detection and Elimination (IDDE) Training YouTube. The Fleet Services Division Manager shall be responsible for training material selection, scheduling and tracking of individual training.

2.4.2.1.1 Management measures addressed by this activity may include awareness of water quality impacts from daily operations, pollution prevention and good housekeeping; and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc., depending upon which training the Division Manager elects to use at that time. The

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

goal is to address each management measure at least once each permit cycle with newly assigned personnel receiving the training within six (6) months of assignment.

2.4.2.1.2 This activity occurs at least once each permit cycle. The Division Manager shall notify the Stormwater Coordinator when training is conducted to include the training material used, the number of employees trained and the management measures addressed by that training.

2.4.2.1.3 The methodology to assess overall effectiveness of this activity is to track the number of employees not trained during the permit cycle or within six (6) months of assignment. The Division Manager shall ensure all employees in the identified job categories are trained and notify the Stormwater Coordinator when the training goal is not met.

2.4.2.1.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented by the Stormwater Coordinator on the Employee Education and Outreach spreadsheet.

2.4.2.2 *Public Works Grounds Maintenance Stormwater Training (OPR: Public Works) (OCR: Engineering)* Grounds Maintenance Stormwater Training consists of a suite of training material including the Grounds Maintenance Stormwater Pollution Prevention Training PowerPoint presentation, Stormwater Training for Municipal Employees – Part 3 YouTube, Routine Street and Parking Lot Sweeping YouTube and Illicit Discharge Detection and Elimination (IDDE) Training YouTube. The Grounds Maintenance Division Manager shall be responsible for training material selection, scheduling and tracking of individual training.

2.4.2.2.1 Management measures addressed by this activity may include awareness of water quality impacts from daily operations, pollution prevention and good housekeeping; and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc., depending upon which training the Division Manager elects to use at that time. The goal is to address each management measure at least once each permit cycle with newly assigned personnel receiving the training within six (6) months of assignment.

2.4.2.2.2 This activity occurs at least once each permit cycle. The Division Manager shall notify the Stormwater Coordinator when training is conducted to include the training material used, the number of employees trained and the management measures addressed by that training.

2.4.2.2.3 The methodology to assess overall effectiveness of this activity is to track the number of employees not trained during the permit cycle or within six (6) months of assignment. The Division Manager shall ensure all employees in the identified job categories are trained and notify the Stormwater Coordinator when the training goal is not met.

2.4.2.2.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented by the Stormwater Coordinator on the Employee Education and Outreach spreadsheet.

2.4.2.3 *Public Works Solid Waste Stormwater Training (OPR: Public Works) (OCR: Engineering)* Solid Waste Stormwater Training consists of a suite of training material including the Solid Wastes Operations Stormwater Pollution Prevention Training PowerPoint presentation, Stormwater Training for Municipal Employees – Part 4

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

YouTube, Stockpile Management YouTube, Waste Disposal YouTube and Illicit Discharge Detection and Elimination (IDDE) Training YouTube. The Solid Waste Division Manager shall be responsible for training material selection, scheduling and tracking of individual training.

- 2.4.2.3.1 Management measures addressed by this activity may include awareness of water quality impacts from daily operations, pollution prevention and good housekeeping; and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc., depending upon which training the Division Manager elects to use at that time. The goal is to address each management measure at least once each permit cycle with newly assigned personnel receiving the training within six (6) months of assignment,
- 2.4.2.3.2 This activity occurs at least once each permit cycle. The Division Manager shall notify the Stormwater Coordinator when training is conducted to include the training material used, the number of employees trained and the management measures addressed by that training.
- 2.4.2.3.3 The methodology to assess overall effectiveness of this activity is to track the number of employees not trained during the permit cycle or within six (6) months of assignment. The Division Manager shall ensure all employees in the identified job categories are trained and notify the Stormwater Coordinator when the training goal is not met
- 2.4.2.3.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented by the Stormwater Coordinator on the Employee Education and Outreach spreadsheet.
- 2.4.2.4 *Public Works Water & Wastewater Services/General Maintenance Stormwater Training (OPR: Public Works) (OCR: Engineering).* Water & Wastewater Services/General Maintenance Stormwater Training consists of a suite of training material including the General Maintenance Stormwater Pollution Prevention Training PowerPoint presentation, Stormwater Training for Municipal Employees – Part 2 YouTube, Stormwater Training for Municipal Employees – Part 5 YouTube and Illicit Discharge Detection and Elimination (IDDE) Training YouTube. The Water & Wastewater Services/General Maintenance Division Manager shall be responsible for training material selection, scheduling and tracking of individual training.
 - 2.4.2.4.1 Management measures addressed by this activity may include awareness of water quality impacts from daily operations, pollution prevention and good housekeeping; and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc., depending upon which training the Division Manager elects to use at that time. The goal is to address each management measure at least once each permit cycle with newly assigned personnel receiving the training within six (6) months of assignment.
 - 2.4.2.4.2 This activity occurs at least once each permit cycle. The Division Manager shall notify the Stormwater Coordinator when training is conducted to include the training material used, the number of employees trained and the management measures addressed by that training.
 - 2.4.2.4.3 The methodology to assess overall effectiveness of this activity is to track the number of employees not trained during the permit cycle or within six (6) months of assignment. The Division Manager shall ensure all employees in the identified job

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

categories are trained and notify the Stormwater Coordinator when the training goal is not met.

- 2.4.2.4.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented by the Stormwater Coordinator on the Employee Education and Outreach spreadsheet.

- 2.4.2.5 *Parks Maintenance Stormwater Training (OPR: Parks) (OCR: Engineering)* Parks Maintenance Stormwater Training consists of a suite of training material including the Parks Maintenance Stormwater Pollution Prevention Training PowerPoint presentation, Stormwater Training for Municipal Employees – Part 3 YouTube, Parks Maintenance and Stormwater Protection Employee Training YouTube and Illicit Discharge Detection and Elimination (IDDE) Training YouTube. The Parks Maintenance Division Manager shall be responsible for training material selection, scheduling and tracking of individual training.

- 2.4.2.5.1 Management measures addressed by this activity may include awareness of water quality impacts from daily operations, pollution prevention and good housekeeping; and awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc., depending upon which training the Division Manager elects to use at that time. The goal is to address each management measure at least once each permit cycle with newly assigned personnel receiving the training within six (6) months of assignment.

- 2.4.2.5.2 This activity occurs at least once each permit cycle. The Division Manager shall notify the Stormwater Coordinator when training is conducted to include the training material used, the number of employees trained and the management measures addressed by that training.

- 2.4.2.5.3 The methodology to assess overall effectiveness of this activity is to track the number of employees not trained during the permit cycle or within six (6) months of assignment. The Division Manager shall ensure all employees in the identified job categories are trained and notify the Stormwater Coordinator when the training goal is not met.

- 2.4.2.5.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented by the Stormwater Coordinator on the Employee Education and Outreach spreadsheet.

- 2.4.3 RESERVED FOR FUTURE USE

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 2 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

Activity/BMP	Management Measure		
	A	B	C
Fleet Maintenance Stormwater Pollution Prevention Training PowerPoint	X	X	
Stormwater Training for Municipal Employees - Part 1	X	X	
Vehicle maintenance YouTube	X	X	
Grounds Maintenance Stormwater Pollution Prevention Training PowerPoint	X	X	
Stormwater Training for Municipal Employees - Part 3	X	X	
Routine Street and Parking Lot Sweeping	X	X	
Solid Wastes Operations Stormwater Pollution Prevention Training PowerPoint	X	X	
Stormwater Training for Municipal Employees - Part 4	X	X	
Stockpile management	X	X	
Waste Disposal	X	X	
General Maintenance Stormwater Pollution Prevention Training PowerPoint	X	X	
Stormwater Training for Municipal Employees - Part 2	X	X	
Stormwater Training for Municipal Employees - Part 5	X	X	X
Parks Maintenance Stormwater Pollution Prevention Training PowerPoint	X	X	
Parks Maintenance and Stormwater Protection Employee Training	X	X	
Illicit Discharge Detection and Elimination (IDDE) Training			X
A = Awareness of water quality impacts from daily operations			
B = Pollution prevention and good housekeeping			
C = Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.			

Table 2-3 Employee Education and Outreach Activities and Management Measures

Section 3 - Public Involvement/Participation

Section 4.2.2 of the Permit requires the City of Bartlett to *develop and implement a program for public involvement and participation as part of the stormwater management program. The objective is to promote, publicize and facilitate citizen's participation in the development and implementation of the stormwater management program. The program will be designed to reach two (2) major audiences, (1) the general public (4.2.2.1) and (2) the commercial and industrial communities (4.2.2.2).* Some elements of this section overlap with elements in other sections of the Stormwater Management Program and will not be repeated here. When applicable, those elements shall be referenced.

- 3.1 Minimum Program Requirements.** In addition to reaching the two (2) major audiences, the program must include the following items. When these items have a minimum management measure not listed in sections 3.2 or 3.3 below, those management measures and the activities/BMPs will be addressed.
- 3.1.1 Specific public involvement/participation activities that are designed to meet the management measures.** Management measures that are addressed in section 4.2.2.1 (General Public) and section 4.2.2.2 (Commercial and Development Community) of the Permit will be addressed in the applicable sections (3.2 or 3.3) below. Each activity/BMP described shall specify which management measure it addresses. The activity/BMP may address more than one of the management measures.
- 3.1.2 Schedule/calendar of events for each year.** Those activities/BMPs that occur on a recurring basis shall be shown in the Program with the approximate month or time of year they are to take place. For instance, TNSA social media outreach occurs twice monthly and the Bartlett Fall Festival annually in September/October. Other activities/BMPs, such as pre-application and pre-construction meetings, occur on an as required or as needed basis.
- 3.1.3 Methodology to evaluate components to assess overall effectiveness and need for improvement.** Modes for evaluating the effectiveness of elements of the PIE are included in the description of that element. It is expected that some elements of the plan will lack an effective means of evaluation without further guidance from the TDEC and the EPA.
- 3.1.4 A mechanism for citizen reporting of illegal spillage, dumping or otherwise illicit disposal of materials into the MS4 system.**
- 3.1.4.1 *IWorQ System Internet Based Reporting System.*** The IWorQ System is a web based system that allows citizens to report suspected illegal spillage, dumping or otherwise illicit disposal of materials into the MS4 system via the internet. A link (Submit a Request) is provided for accessing the system on the City of Bartlett official website home page. The system automatically sends a notification for report investigation to either Code Enforcement or Engineering. IWorQ is used for tracking incident response and elimination.
- 3.1.4.2 *Telephone System.*** Telephone reporting is perhaps the most common method that citizens use to report suspected illicit discharges. Telephone numbers are displayed on the City of Bartlett official website, mailings, directories, etc., and are easily available to most citizens. The calls are usually received at the departments of Engineering, Public Works or Code Enforcement. To ensure response and tracking is consistent, any information received via telephone reporting is manually keyed into the IWorQ System for incident response and elimination tracking.
- 3.1.4.3 *Electronic Mail.*** Citizens are encouraged to use the IWorQ System but sometimes find using electronic mail more convenient. As with telephone reporting, electronic mail

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

reports are usually received at the departments of Engineering, Public Works or Code Enforcement. To ensure response and tracking is consistent, any information received via electronic mail reporting is manually keyed into the IWorQ System for incident response and elimination tracking.

3.1.5 Publicity plan for public involvement and participation opportunities by methods designed to reach the intended audience.

3.1.5.1 *City of Bartlett Official Website (OPR: Engineering) (OCRs: Office of the Mayor, Community Relations, Information Technology, Planning).* The City of Bartlett official website can be used to advertise both long term and short notice public involvement opportunities. The Public Notices section is routinely used to advertise solicitations for public comments on documents or other associated stormwater programs. Planning commission and Board of Mayor and Alderman agendas and meetings dates are posted here, providing the public an opportunity to comment upon proposed projects. The calendar section may be used to advertise specific activities on known dates. The News and Announcement section may be used to publicize upcoming events or to make an announcement concerning stormwater runoff pollution prevention. The Stormwater Management Division section of the website provides information concerning activities as well as reporting of illicit discharges. Postings of events, public announcements, or other opportunities for public involvement relating specifically to stormwater matters shall be initiated by the Stormwater Coordinator and approved by the Program Manager. The Program Manager has authority to direct changes to the Engineering section of the website. Postings to other portions of the website shall be coordinated through the applicable OCR with final approval resting with the Mayor (if required).

3.1.5.2 *City of Bartlett Official Social Media Platforms (OPR: Engineering) (OCR: Community Relations).* The Chief Communications Officer manages the City's official social media platforms. Social media platforms can be used to advertise both long term and short notice public involvement opportunities via a post or a news flash. Postings of events, public announcements, or other opportunities for public involvement relating specifically to stormwater matters shall be initiated by the Stormwater Coordinator and approved by the Program Manager. The request shall be coordinated with the OCR, with final approval resting with the Mayor (if required). The OCR shall determine the best method for displaying the information on social media platforms.

3.1.5.3 *Water Bill Message Request (OPR: Engineering) (OCR: Water Department).* A Water Bill Message Request form is used to print a brief message on the water bills of all City of Bartlett water customers. When the participation opportunity is related specifically to stormwater matters, the form is initiated by the Stormwater Coordinator and approved by the Program Manager. Final approval is provided by the Mayor. The specific goal of this program is to advertise non-time sensitive participation activities to the general public. This activity is also used to provide general information concerning other program elements such as purchase opportunities for yard waste carts and illicit discharge reporting. The frequency of messages is dependent upon the program information and the best means for distributing that information.

3.1.5.4 *Bulletin Board (OCR: Engineering) (OCRs: Planning, Office of the Mayor).* A bulletin board is located adjacent to the entrance to the city hall. Meeting agendas and dates, such as Planning Commission Meetings, are routinely displayed here. Postings of events, public announcements, or other opportunities for public involvement relating specifically to stormwater matters shall be initiated by the Stormwater Coordinator and approved by the Program Manager. The posting shall be coordinated with the applicable OCR, with final approval resting with the Mayor (if required).

3.1.5.5 *Newspapers (OPR: Engineering)*. The City may elect to advertise participation activities using the local newspaper. Public notice soliciting comments will normally be posted in the local newspaper in addition to one or more of the afore mentioned methods. The Stormwater Coordinator shall draft the notice. With the approval of the Program Manager, the notice will be sent to the local paper for publication.

3.1.5.6 RESERVED FOR FUTURE USE

3.1.6 Permittees shall create opportunities for the public to participate in the decision-making processes for developing, implementing and updating the Stormwater Management Program.

3.1.6.1 *Stormwater Management Program Modification Workshops (OPR: Engineering)*. For major modifications to the Stormwater Management Program, the Stormwater Coordinator will draft the changes and schedule three (3) workshops to provide the public with an opportunity to participate in the decision making-process. This participation opportunity will be advertised using one or more of the methods described in section 3.1.5.

3.1.6.1.1 The first workshop will be used to introduce the draft to those members of the public who have decided to participate. A copy of the draft and the applicable portions of the Permit is to be provided to all attendees. Any initial questions will be addressed. The intent of this meeting is to ensure all interested participants have a copy of the draft to review and provide input to. If no one from the public attends this workshop, no other workshops will be scheduled.

3.1.6.1.2 The second workshop will be scheduled a minimum of four (4) weeks following the first workshop. The purpose of this workshop is to receive and discuss comments and suggestions concerning the draft from participants. All comments and suggestions consistent with the Permit requirements will be considered.

3.1.6.1.3 The third workshop will be scheduled a minimum of four (4) weeks following the second workshop. The purpose of this workshop is to provide the final draft to participants for discussion and comment. The final draft should be a collaborative work, and consistent with the requirements of the Permit and only require minor edits before being place on formal public notice.

3.1.6.2 Once the draft has been finalized, a public notice will be announced using one or more of the methods described in section 3.1.5. A copy of the public notice will also be sent to TDEC as required by section 4.4.1.2 of the Permit.

3.1.6.2.1 The public notice period will be for a period of at least 30 days.

3.1.6.2.2 The draft document will be made available for review during normal business hours in the Engineering Department. A copy will also be posted on the City's official website.

3.1.6.2.3 If comments are received during the formal notice period, they will be considered for inclusion in the final document.

3.1.6.2.4 All comments and the rationale for not including a comment in the final document shall be maintained on file.

3.1.7 Mechanisms, procedures and processes for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new development and redevelopment projects.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.1.7.1 *Planning Commission and Board of Mayor and Alderman (OPR: Planning and Office of the Mayor)* All new development and redevelopment projects are subject to review and approval by the City's Planning Commission with final approval resting with the Board of Mayor and Alderman.
- 3.1.7.1.1 Planning Commission meetings are scheduled to occur monthly and are posted on the City's official website and the bulletin board at the entrance to City Hall. The postings include an agenda that will include any new development or redevelopment projects.
- 3.1.7.1.2 The Board of Mayor and Alderman meetings are scheduled to occur every two weeks and are posted on the City's official website and the bulletin board at the entrance to City Hall. The postings include an agenda that will include any new development or redevelopment projects.
- 3.1.7.1.3 The meetings are open to the public. The public is afforded an opportunity to provide any comments on new development or redevelopment projects being considered at the meetings.
- 3.1.7.2 *Master Plan.* Master plans are governed by the City's subdivision ordinance and normally concern new subdivisions. This type of project does not require any formal public notice but requires review and approval by the City's Planning Commission and the Board of Mayor and Alderman. The advertising of this type of new development or redevelopment is through the Planning Commission and Board of Mayor and Alderman processes described above.
- 3.1.7.3 *Planned Development.* Planned developments are governed by the City's zoning ordinance. This type of project requires formal public notice to property owners adjacent to the development or redevelopment project and requires review and approval by the City's Planning Commission and the Board of Mayor and Alderman.
- 3.1.7.3.1 The City's Department of Planning and Economic Development will send formal public notice letters to the affected property owners.
- 3.1.7.3.2 The advertising of this type of new development or redevelopment is through the Planning Commission and Board of Mayor and Alderman processes described above.
- 3.1.7.4 *Site Plan.* A site plan normally involves commercial property development or redevelopment. This type of development/redevelopment project is processed similar to the Master Plan.
- 3.1.8 Develop and implement a public notice process in accordance with subpart 4.4.1 of the Permit. See sections 3.1.5 and 3.1.6 above.
- 3.1.9 Permittees shall track and maintain records of public involvement and participation opportunities.
- 3.1.9.1 *Stormwater Management Program Modifications (OPR: Engineering)* The City's Department of Engineering and Utilities shall maintain records associated with modification workshops.
- 3.1.9.2 *Planning Commission Meetings (OPR: Planning)* Meeting minutes and agendas shall be maintained by the Department of Planning and Economic Development and are archived on the City's official website.

3.1.9.3 *Board of Mayor and Alderman Meetings (OPR: Office of the Mayor)* Meeting minutes and agendas shall be maintained by the City Clerk and are archived on the City's official website.

3.1.9.3.1 RESERVED FOR FUTURE USE

3.1.10 RESERVED FOR FUTURE USE

3.1.11 Management Measures. Management measures for section 4.2.2 of the Permit are addressed here. Those management measures addressed in section 4.2.2.1 and 4.2.2.2 of the Permit are addressed in [sections 3.2, The General Public](#), and [3.3, The Commercial and Development Community](#), below.

3.1.11.1 *Provide public access to the Stormwater Management Program records, including a written description of the Stormwater Program available at reasonable times during regular business hours.*

3.1.11.1.1 The goal of this management measure is to make the written description of the Stormwater Management Program available to the public either on the City's official webpage or through the City's public records review process.

3.1.11.1.1.1 The Stormwater Management Program is posted on the City's official website and is available for review at the Department of Engineering and Utilities during normal business hours.

3.1.11.1.1.2 Supporting documents such as inspection reports or enforcement actions are available to the public through the City's public records request process.

3.1.11.1.2 The reporting requirement for this management measure is to provide the web address for the Stormwater Management Program.

3.1.11.2 *Develop and implement a formal public notice process including documenting and responding to public comments and mechanism to identify major modification to the Stormwater Management Program that require a formal public notice process.*

3.1.11.2.1 These processes have been described in sections 3.1.5 and 3.1.6 above.

3.1.11.2.2 The reporting requirement for this management measure is to provide a copy of the formal notice and response to comments when the Stormwater Management Program is required to be formally placed upon public notice.

3.1.11.2.3 For reporting periods when formal notice is not required, indicate so in the annual report.

3.1.11.3 *Mechanisms, procedures and processes for public access to information on projects and receiving and considering comments from the public on those projects.*

3.1.11.3.1 These processes have been described in section 3.1.7 above.

3.1.11.3.2 The reporting requirements for this management measure are to indicate (yes/no) that all information concerning construction sites are accessible to the public, the number of comments received from the public and if those comments (yes/no) are considered.

3.1.11.4 *Encourage and promote citizen reporting of illegal spillage, dumping or otherwise disposal of materials into the MS4 storm sewer system.*

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.1.11.4.1 The City's official website has a page dedicated to illicit discharge awareness and reporting (<https://www.cityofbartlett.org/1089/Illicit-Discharge-Awareness-Reporting>). Specific topics include what is an illicit discharge, why detection and elimination of illicit discharges are important and how to detect and report an illicit discharge.
- 3.1.11.4.2 Other methods to encourage and promote citizen reporting of illegal spillage, dumping or otherwise disposal of materials into the MS4 storm sewer system are described in section 3.2.2.
- 3.1.11.4.3 The processes for reporting illegal spillage, dumping or otherwise disposal of materials into the MS4 storm sewer system are described in section 3.1.4 above.
- 3.1.11.4.4 The reporting requirement for this management measure is to report the number of reports received from the public. This information can be extracted from IWorQ. IWorQ can not differentiate between reporting sources so the data will have to be scrutinized for reports from the public.

3.2 The General Public. The Permit requires the City to conduct or sponsor a minimum of six (6) activities that address each of the management measures for the general public audience portion of the PIE each reporting year. The total number of activities conducted are to be reported in the annual report including a description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached. For activities that are only sponsored, such as the TNSA Social Media Campaign, identify if the event was sponsored monetarily or as a donation in kind. A Public Involvement/Participation spreadsheet has been created to track this information and is located in the Stormwater Management Program file on the Department of Engineering's shared computer server.

3.2.1 Management Measures. The Permit identifies four (4) management measures that General Public Involvement/Participation activities are to address. Some activities may address only one measurement while another may address all four. The goal is to address each management measure at least once during the reporting year. Those management measures are:

3.2.1.1 Pollution Prevention

3.2.1.2 Impacts on water quality or local stormwater management issues.

3.2.1.3 Storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizer use.

3.2.1.4 Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

3.2.2 Activities/BMPs. This section outlines the activities/BMPs that the City of Bartlett will use to address the management measures specified in the Permit for General Public Involvement/Participation. Each activity/BMP identifies the OPR and, if applicable, the OCR for that activity. Additionally, each management measure the activity/BMP addresses is identified as well as when the activity is expected to occur. If there is a method to evaluate the effectiveness of the activity/BMP, it is described.

3.2.2.1 *City of Bartlett official website (OPR: Engineering) (OCR: IT).* As described in section 2.2.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.2.2.1.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.1.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.2 *Stormwater Education Booth (OPR: Engineering).* As described in section 2.2.
- 3.2.2.2.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.2.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.3 *Preventing Stormwater Pollution PowerPoint™ presentation (OPR: Engineering).* As described in section 2.2.
- 3.2.2.3.1 The management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, and storage, use and disposal household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers.
- 3.2.2.3.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.4 *Tennessee Homeowner's Guide to Cleaner Water pamphlet (OPR: Engineering) (OCR: Water Department).* As described in section 2.2.
- 3.2.2.4.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, and storage, use and disposal household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers.
- 3.2.2.4.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.5 *Pet Waste & Water Quality pamphlet (OPR: Engineering) (OCR: Water Department).* As described in section 2.2.
- 3.2.2.5.1 Management measure addressed by this activity is pollution prevention and impacts on water quality or local stormwater management issues.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.2.2.5.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.6 *Clean Water – Everybody’s Business bookmarks (OPR: Engineering)*. As described in section 2.2.
- 3.2.2.6.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.6.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.7 *City of Bartlett Official Social Media Platforms (OPR: Engineering) (OCR: Community Relations)*. As described in section 2.2.
- 3.2.2.7.1 Management measures addressed by this activity vary depending upon the posting and may address pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.7.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.8 *Tennessee Stormwater Association (TNSA) Statewide Social Media Campaign (OPR: Engineering)*. As described in section 2.2.
- 3.2.2.8.1 Management measures addressed by this activity vary depending upon the PSA and may address pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.8.2 This program is administered by the TNSA. A report is provided to the City of Bartlett detailing the number “hits” or “clicks” made in our local area. A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.9 *Detention Basin Maintenance Brochure (OPR: Engineering)*. As described in section 2.2.
- 3.2.2.9.1 Management measure addressed by this activity is pollution prevention and impacts on water quality or local stormwater management issues.

- 3.2.2.9.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.10 *Automotive Maintenance and Care Brochure (OPR: Engineering)*. As described in section 2.2.
- 3.2.2.10.1 Management measures addressed by this activity are pollution prevention and storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers.
- 3.2.2.10.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.11 *Illicit Discharge Detection and Elimination Handout (OPR; Engineering)*. As described in section 2.2.
- 3.2.2.11.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.11.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.12 *IDDE – A Grate Concern Video (OPR: Engineering) (OCR: Community Relations)*. As described in section 2.2.
- 3.2.2.12.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.12.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.
- 3.2.2.13 *Stormwater Pollution Found in Your Neighborhood Door Tags (OPR: Engineering)*. As described in section 2.2.
- 3.2.2.13.1 Management measures addressed by this activity are pollution prevention, impacts on water quality or local stormwater management issues, storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, fertilizers and identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- 3.2.2.13.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.

3.2.2.14 *Keep Bartlett Beautiful Day (OPR: Parks).* As described in section 2.2.

3.2.2.14.1 Management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.

3.2.2.14.2 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Involvement/Participation spreadsheet.

Activity/BMP	Management Measure			
	A	B	C	D
City of Bartlett official website	X	X	X	X
Stormwater Education Booth	X	X	X	X
Preventing Stormwater Pollution PowerPoint™ presentation	X	X	X	
Tennessee Homeowner's Guide to Cleaner Water pamphlet	X	X	X	
Pet Waste & Water Quality pamphlet	X	X		
Clean Water – Everybody's Business bookmarks	X	X	X	X
City of Bartlett Official Social Media Platforms	X	X	X	X
TNSA Social Media Campaign (depending upon ad)	X	X	X	X
Detention Basin Maintenance Brochure	X	X		
Automotive Maintenance and Care Brochure	X		X	
Illicit Discharge Detection and Elimination Handout	X	X		X
IDDE – A Grate Concern Video	X	X		X
Stormwater Pollution Found in Your Neighborhood Door Tags	X	X	X	X
Keep Bartlett Beautiful Day	X	X		
A = Pollution Prevention				
B = Impacts on water quality or local stormwater management issues				
C = Storage, use and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides and fertilizers use				
D = Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.				

Table 3-1 General Public Involvement/Participation Activities and Management Measures

3.3 The Commercial and Development Communities. The Permit requires the City to conduct or sponsor a minimum of two (2) activities that address each of the management measures for the commercial and development audience portion of the PIE each reporting year. The total number of activities conducted are to be reported in the annual report including a description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached. A Commercial and Development spreadsheet has been created to track this information and is located in the Stormwater Management Program file on the Department of Engineering's shared computer server.

3.3.1 Management Measures. The Permit identifies two (2) management measures that Commercial and Development Community activities are to address. Some activities may address only one measurement while another may address both. The goal is to address each management measure at least once during the reporting year. Those management measures are:

3.3.1.1 Pollution prevention.

3.3.1.2 Impacts on water quality or local stormwater management issues.

3.3.2 Activities/BMPs. This section outlines the activities/BMPs that the City of Bartlett will use to address the management measures specified in the Permit for Commercial and Development Communities. Each activity/BMP identifies the OPR and, if applicable, the OCR for that activity. Additionally, each management measure the activity/BMP addresses is identified as well as when the activity is expected to occur. If there is a method to evaluate the effectiveness of the activity/BMP, it is described.

3.3.2.1 *City of Bartlett official website (OPR: Engineering) (OCR: IT)*. The City's official website has a section dedicated to public education and outreach (<https://www.cityofbartlett.org/916/Public-Education-and-Outreach>) which includes items that target the commercial and development communities. In addition to pollution prevention, the web page contains links to PSAs; permanent BMP awareness; ordinance, regulation and guidance materials; chemical applicator awareness; automotive fluid awareness; illicit discharge awareness & reporting; construction guide to cleaner water brochure; homeowner's guide to clean water brochure; pet waste & water quality brochure; landscaping, gardening & pest control brochure; food service industry brochure; heavy equipment and earth moving activities brochure; detention basin maintenance brochure; home repair & remodeling brochure; public education videos; and watershed descriptions. The targeted audience is internet users.

3.3.2.1.1 Management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues

3.3.2.1.2 This activity is continuous.

3.3.2.1.3 The methodology to assess overall effectiveness of this activity is to request the City's IT department provide a history of how many times the website was visited during the reporting period. The history will be requested by the Stormwater Coordinator during preparation of the annual report.

3.3.2.1.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

3.3.2.2 *Construction Guide to Cleaner Waters (OPR: Engineering) (OCR: Code Enforcement)*. This brochure is used to provide local construction companies and contractors with general information concerning the impact of construction activities on water quality and provides information on how to reduce or eliminate those impacts. The brochures are distributed by the Department of Code Enforcement upon issuance of building permits and by the Department of Engineering during preconstruction meetings. The brochure is also available on the City of Bartlett's official website. The target audiences are construction companies and contractors.

3.3.2.2.1 The management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.

3.3.2.2.2 This activity is not a recurring activity and is expected to occur on an as needed basis.

3.3.2.2.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

be established in the future based upon guidance provided from the TDEC or the EPA.

- 3.3.2.2.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Public Education and Outreach spreadsheet.

3.3.2.3 *Landscaping, Gardening and Pest Control (OPR: Engineering)*. This brochure is used to provide homeowners, gardeners and landscapers with general information concerning the impact of landscaping activities on water quality and provides information on how to reduce or eliminate those impacts. The brochure is available on the City of Bartlett's official website and distributed when investigating illicit discharge complaints involving landscaping activities. The target audiences are homeowners and landscape companies and contractors.

- 3.3.2.3.1 The management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.

- 3.3.2.3.2 This activity is not a recurring activity and is expected to occur on an as needed basis.

- 3.3.2.3.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.

- 3.3.2.3.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

3.3.2.4 *Food Services Industries Brochure (OPR: Engineering)*. This brochure is used to provide restaurants, grocery stores and bakeries with general information concerning the impact of food services activities on water quality and provides information on how to reduce or eliminate those impacts. The brochure is available on the City of Bartlett's official website and distributed when investigating illicit discharge reports involving food services activities. The target audiences are restaurants and grocery stores.

- 3.3.2.4.1 The management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.

- 3.3.2.4.2 This activity is not a recurring activity and is expected to occur on an as needed basis.

- 3.3.2.4.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.

- 3.3.2.4.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.3.2.5 *Automotive Maintenance and Car Care Brochure (OPR: Engineering)*. This brochure is used to provide professional automotive repair facilities, parts stores and motor vehicle owners with general information concerning the impact of automotive fluids on water quality and provides information on how to reduce or eliminate those impacts. The brochure is available on the City of Bartlett's official website and is distributed when investigating illicit discharge reports concerning automotive fluids. The target audiences are gas stations, auto repair shops, auto body shops, car dealerships, mobile fleet managers, mobile fleet washers and motor vehicle owners.
- 3.3.2.5.1 The management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.
- 3.3.2.5.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 3.3.2.5.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 3.3.2.5.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.
- 3.3.2.6 *Heavy Equipment and Earth Moving Activities Brochure (OPR: Engineering)*. This brochure is used to provide site supervisors, bulldozer, backhoe and gardening machine operators, dump truck drivers, general contractors, home builders and developers with general information concerning the impact of heavy equipment and earth moving activities on the water quality and provides information on how to reduce or eliminate those impacts. The brochure is available on the City of Bartlett's official website and is distributed when investigating illicit discharge reports concerning automotive fluids. The target audiences are site supervisors, bulldozer, backhoe and gardening machine operators, dump truck drivers, general contractors, home builders and developers.
- 3.3.2.6.1 The management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.
- 3.3.2.6.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 3.3.2.6.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 3.3.2.6.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.
- 3.3.2.7 *Detention Basin Maintenance Brochure (OPR: Engineering)*. This brochure is used to provide owners of detention basins with general information concerning the importance of detention basins for stormwater pollution control and provides information on how to properly maintain them. The brochure is also available on the City of Bartlett's official website. The target audience is owners of basins.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

- 3.3.2.7.1 Management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.
- 3.3.2.7.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 3.3.2.7.3 There has been no methodology established to assess overall effectiveness of this activity but the number of brochures distributed shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 3.3.2.7.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.
- 3.3.2.8 *Pre-application Meetings (OPR: Engineering) (OCR: Planning).* Pre-application meetings are conducted prior to the formal process of project plan application and approval. These meetings are normally requested by the engineer/developer to gather the requirements for development or construction for a particular parcel.
- 3.3.2.8.1 Management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.
- 3.3.2.8.2 This activity is not a recurring activity and is expected to occur on an as needed basis.
- 3.3.2.8.3 There has been no methodology established to assess overall effectiveness of this activity but the number of meetings conducted shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA.
- 3.3.2.8.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.
- 3.3.2.9 *Pre-construction Meetings (OPR: Engineering) (OCR: Code Enforcement).* The City of Bartlett requires a pre-construction meeting for all construction activities that require permitting through the National Pollution Discharge Elimination System regardless of priority construction activity status. The pre-construction meeting is normally convened after all plan reviews have been completed, a Notice of Coverage has been issued and immediately before work commences. During the meeting, the erosion prevention and sediment control plans are reviewed to ensure the contractor/developer are aware of what is required in accordance with the plans and the Tennessee construction general permit.
- 3.3.2.9.1 Management measures addressed by this activity are pollution prevention and impacts on water quality or local stormwater management issues.
- 3.3.2.9.2 This activity is not a scheduled recurring activity and is expected to occur on an as needed basis.
- 3.3.2.9.3 There has been no methodology established to assess overall effectiveness of this activity but the number of meetings conducted shall be tracked. A methodology may

be established in the future based upon guidance provided from the TDEC or the EPA.

3.3.2.9.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

3.3.2.10 *Mid-South Clean Water Day (OPR: TNSA) (OCR: Engineering)*. This activity is sponsored through TNSA. The activity involves workshops with various topics related to water quality impacts from earth disturbing activities as well as the guidance material related to minimizing those impacts. The activity includes a demonstration of the various BMPs that can be utilized to minimize the impacts earth disturbance has on water quality. Local MS4 stormwater personnel are invited to participate/co-sponsor these activities. The targeted audience is commercial and development communities.

3.3.2.10.1 Management measures addressed by this activity vary but may include pollution prevention and impacts on water quality or local stormwater management issues.

3.3.2.10.2 This activity is a recurring event expected to occur once every two years, usually in April, during the term of the Permit.

3.3.2.10.3 There has been no methodology established to assess overall effectiveness of this activity but the number of attendees shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA

3.3.2.10.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

3.3.2.11 *Commercial and Development Group Mailing List (OPR: Engineering) (OCR: Community Relations)*. The Director of Community Relations maintains an electronic mailing list for area groups and organizations. The Stormwater Coordinator may request the Manager, or the Manager may elect to disseminate pertinent information to those on the listing. The specific goal of this activity/BMP is to provide time sensitive information and other information relevant to or of interest to group and organization members. The frequency of these mailings is dependent upon the program information and the best means for distributing that information.

3.3.2.11.1 Management measures addressed by this activity vary but may include pollution prevention and impacts on water quality or local stormwater management issues.

3.3.2.11.2 This activity is not a scheduled recurring activity and is expected to occur on an as needed basis.

3.3.2.11.3 There has been no methodology established to assess overall effectiveness of this activity but the number of group emails sent shall be tracked. A methodology may be established in the future based upon guidance provided from the TDEC or the EPA

3.3.2.11.4 A description of the activity, date of the activity, management measures addressed by that activity, the specifically targeted audience for that activity and the approximate number of that audience reached will be documented on the Commercial and Development Outreach spreadsheet.

3.3.2.12 RESERVED FOR FUTURE USE

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 3 – PUBLIC INVOLVEMENT/PARTICIPATION

3.3.3 RESERVED FOR FUTURE USE.

Activity/BMP	Management Measure	
	A	B
City of Bartlett official website	X	X
Construction Guide to Cleaner Waters	X	X
Landscaping, Gardening and Pest Control Brochure	X	X
Food Services Industries Brochure	X	X
Automotive Maintenance and Car Care Brochure	X	X
Heavy Equipment and Earth Moving Activities Brochure	X	X
Detention Basin Maintenance Brochure	X	X
Pre-application Meetings	X	X
Pre-construction Meetings	X	X
Mid-South Clean Waters Day	X	X
Engineering and Development Community mailing list	X	X
A = Pollution Prevention		
B = Impacts on water quality or local stormwater management issues		

Table 3-2 Commercial and Development Communities Involvement/Participation Activities and Management Measures

Section 4 - Illicit Discharge Detection and Elimination (IDDE)

Section 4.2.3 of the Permit requires the City of Bartlett to *develop, implement and enforce a program to detect and eliminate illicit discharges into the storm sewer system*. The objective is to detect and eliminate illicit discharges to the maximum extent practicable. Some elements of this section overlap with elements in other sections of the Stormwater Management Program and will not be repeated here. When applicable, those elements shall be referenced.

4.1 Minimum Program Requirements. The program must include the following items. When these items have a management measure, those management measures and the activities/BMPs will be addressed.

4.1.1 Develop, if not already completed, a storm sewer system map that includes MS4 outfalls, inputs into the storm sewer collection system, direction of stormwater flow through the system and the receiving streams.

4.1.1.1 *Storm Sewer Map (OPR: Engineering).* The City of Bartlett has developed the required storm sewer map which is maintained on the Geographic Information System (GIS) server and accessed using ArcReader. The GIS Division of the Department of Engineering and Utilities is tasked with the overall maintenance of the map.

4.1.1.1.1 The management measure for this program element is to develop a storm sewer map that contains all the required data elements listed in section 4.2.3.1 of the Permit.

4.1.1.1.2 The measurable goal is to continue to update mapping as new elements are identified.

4.1.1.1.2.1 Data obtained from as-built plans are scanned and geo-referenced to add data to the existing map. Drainage structures and outfalls are assigned unique numbers and names to ease data tracking and retrieval.

4.1.1.1.2.2 Data collected during Outfall Reconnaissance Inventories is added to the map as required. In some cases, data is removed, i.e., an outfall structure has been removed and the pipe line continued. In other cases the data may need to be revised, i.e., an outfall structure has been converted to a manhole or inlet.

4.1.1.1.3 The annual report requirement is to submit the geodatabase/shape file for the storm sewer map.

4.1.2 Effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement an appropriate enforcement response plan (ERP).

4.1.2.1 *Stormwater Ordinance (OPR: Engineering).* The City of Bartlett has a stormwater ordinance in place to satisfy this permit requirement. The ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012.

4.1.2.1.1 Section 14-205(2) specifically prohibits the introduction into the system any discharge not composed entirely of stormwater. Allowable non-stormwater discharges are listed in section 14-205(3).

4.1.2.1.2 Section 14-211 outlines the enforcement response the City may exercise to achieve compliance.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 4 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

- 4.1.2.2 *Enforcement Response Plan (ERP) (OPR: Engineering) (OCR: Code Enforcement).* The Enforcement Response Plan (ERP) is detailed in [Section 9](#) of the Stormwater Management Program.
- 4.1.3 Develop and implement a program to detect, investigate and address non-stormwater discharges, including illegal dumping, into the system. This includes standard procedures and forms to be followed to investigate illicit discharges throughout the MS4 jurisdiction. This must include:
- 4.1.3.1 *Procedures for locating priority areas likely to have illicit discharges.*
- 4.1.3.1.1 For the purpose of the Stormwater Management Program, priority areas likely to have the potential for an illicit discharge are commercial areas comprised of restaurants, automobile parts or servicing businesses and areas with large parking areas.
- 4.1.3.2 *Procedures for tracing the source of an illicit discharge.*
- 4.1.3.2.1 The procedures used for tracing the source of an illicit discharge are the same procedures described for dry weather outfall reconnaissance inventories and are described in [Attachment 2](#).
- 4.1.3.3 *Procedures for removing the source of the discharge.*
- 4.1.3.3.1 The procedures for removing the source of the discharge is through progressive response as described in [Section 9](#) and the City's stormwater ordinance.
- 4.1.3.4 *Procedures for tracking, investigating and addressing potential illicit discharges and confirmed illicit discharges.*
- 4.1.3.4.1 The City's IWorQ reporting system is used for documenting and tracking reports of potential and confirmed illicit discharges.
- 4.1.3.5 *Specify the timeframe for initiating complaint investigation within the ERP.* The ERP is described in [Section 9](#) and specifies the initial response to a complaint is not to exceed seven (7) calendar days.
- 4.1.3.6 *Initial enforcement actions for confirmed illicit discharges.* The ERP is described in [Section 9](#) and specifies that enforcement action will be taken within seven (7) calendar days of a confirmed illicit discharge.
- 4.1.3.7 *Confirmed illicit discharges eliminated.* The ERP is described in [Section 9](#) and specifies that confirmed illicit discharges are to be eliminated as soon as possible but not later than 14 calendar days of a confirmed illicit discharge.
- 4.1.3.8 *Referring to TDEC.* If the responsible party or source of a confirmed illicit discharge cannot be identified, the illicit discharge shall be referred to the local TDEC environmental field office within 14 calendar days of completing the investigation. All records and documents will be provided in the referral.
- 4.1.4 Address allowable non-stormwater discharges or flows only if the permittee identifies them as a significant contributor of pollutants to the MS4. The City of Bartlett has not identified any allowable non-stormwater discharges or flows as significant contributors of pollutants to the MS4.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 4 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

- 4.1.4.1 The management measure for this program element is to identify and investigate the categories of non-stormwater discharges or flows only if the permittee identifies them as a significant contributor of pollutants to the MS4. This management measure and its associated goals are not applicable to the City of Bartlett. See section 4.1.4 above.
- 4.1.4.2 Data for annual reporting of this item will be zero (0) and no. See section 4.1.4 above.
- 4.1.5 Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste. This program element is addressed in [section 2, Public Education and Outreach on Stormwater Impacts](#), and in [section 3, Public Involvement/Participation](#).
- 4.1.6 Develop a mechanism for the public to report suspected illicit discharges. See section 3.1.4.
- 4.2 **Dry Weather Outfall Reconnaissance Inventories** are intended to be a structured program of detecting and eliminating sources of pollution. The goals of this program element are to detect and investigate illicit discharges and direct correction of the cause of that illicit discharge.
- 4.2.1 For the purpose of the Stormwater Management Program, an outfall is defined as any man-made structure, device or channel used to channel stormwater runoff, or acts as the discharge point for collected stormwater runoff, to waters of the State. Structures with the sole purpose of simply conveying stormwater runoff from one side of a driveway, roadway, street or highway to the other side shall not be considered an outfall. Drain structures such as yard inlets, street and parking lot drains and curb drains shall not be considered outfalls.
- 4.2.2 Outfalls to waters of the state with an opening equivalent to a circular opening of 30 inches or larger or open channels draining an area of 50 acres or more shall be inventoried at least once every five years. Outfalls, regardless of size, displaying evidence of illicit discharges are subject to more frequent inspections.
- 4.2.3 Outfall Reconnaissance Inventories are scheduled by the Stormwater Coordinator and conducted by the Construction Inspection Division of the Department of Engineering and Utilities. The following schedule shall be used for conducting the inventories, with the goal of having 100 percent of the outfalls to waters of the State inventoried at the end of the fifth year of permit implementation. The City of Bartlett has no outfalls on the Loosahatchie River.

	MEASURABLE GOALS
Goal(s)	Perform and document inspections of outfalls 30" or larger to waters of the state.
Year 1	Perform outfall inspections for Unnamed Tributary to Fletcher Creek.
Year 2	Perform outfall inspections for Harrington Creek.
Year 3	Perform outfall inspections for Buckhead Creek.
Year 4	Perform outfall inspections for Howard & Raner Creek.
Year 5	Perform outfall inspections for Oliver Creek.

- 4.2.4 Completed Outfall Reconnaissance Inventory Reports ([Attachment 1](#)) are returned to the Stormwater Coordinator for processing. The Department of Public Works is notified when outfalls have been identified as requiring maintenance. The completed forms are then forwarded to the GIS Division to update the storm sewer map and other attributes

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 4 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

used to track and schedule outfall inventories. [Attachment 2](#) contains a complete description of this element of the Stormwater Management Program.

4.3 Management Measures, Goals and Annual Report Requirements. This section addresses the management measures identified in the Permit that are required to be reported as part of the annual report. Those items previously addressed will not be repeated but the applicable section will be referenced.

4.3.1 Storm Sewer Map. This management measure, goals and annual report requirements are described in section 4.1.1 above.

4.3.2 Allowable Non-stormwater Investigations. This management measure, goal and annual report requirements are described in section 4.1.4 above.

4.3.3 Illicit Discharge Reporting and Investigations. This management measure has four (4) measurable goals, each with two (2) annual report requirements.

4.3.3.1 *Track all potential illicit discharges reported, categorized by reporting source.* IWorQ is used to track illicit discharge reporting and response. The annual report has requirements for two (2) sources, the general public and City employees. This item differs from that required in section 3 in that this item asks for the number of reports made by employees as well. Since IWorQ is not set up to distinguish between reporting sources, the IWorQ query will have to be reviewed to separate the sources.

4.3.3.1.1 The annual report will include the number of potential illicit discharges reported by the public. This number should be the same as that reported in section 3.

4.3.3.1.2 The annual report will also include the number of potential illicit discharges reported by internal personnel (public employees).

4.3.3.2 *Initiate 100% of all potential illicit discharges investigations within seven (7) calendar days of the receipt of the complaint.* The ERP (see [Section 9](#)) requires investigations to be initiated within seven (7) calendar days of receipt of the complaint.

4.3.3.2.1 The annual report will include the total number of potential illicit discharges reported, from any source, that are under investigation at the time of the annual report. Note that this does not say how many were investigated during the report period so the report will include only those under active investigation as of June 30 of the reporting year. This data can be extracted from IWorQ.

4.3.3.2.2 The annual report will also include (yes/no) were all potential illicit discharges investigated within seven (7) calendar days of receipt of the complaint. IWorQ shows the date the complaint is received as well as the date of the initial investigation. Unless there is some extenuating circumstance that prevented the complaint from being investigated within seven (7) calendar days, this should be answered as yes. A no response should be explained at the end of the report in the section for comments.

4.3.3.3 *100% of all initial enforcement actions shall be taken within seven (7) calendar days of the investigation on confirmed illicit discharges.* The ERP (see section 9) requires enforcement actions to be initiated within seven (7) calendar days of confirmation that an illicit discharge has occurred.

4.3.3.3.1 The annual report will include the number of identified (confirmed) illicit discharges. This data can be extracted from IWorQ.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 4 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

- 4.3.3.3.2 The annual report will also include (yes/no) were all initial enforcement actions on confirmed illicit discharges taken within seven (7) calendar days of the investigation. IWorQ shows the date of the investigation and the enforcement action. Unless there is some extenuating circumstance that prevented the enforcement action from being initiated within seven (7) calendar days, this should be answered as yes. A no response should be explained at the end of the report in the section for comments.
- 4.3.3.4 *100% of all corrective action plans are reviewed in accordance with procedures.* Corrective action plans are required when illicit discharge elimination will exceed 14 days from notification of the owner/responsible person of the confirmed illicit discharge. Documents can be uploaded to IWorQ in order to have a complete history of the complaint.
- 4.3.3.4.1 The annual report requires the number of action plans received for confirmed illicit discharges. This information can be extracted from IWorQ.
- 4.3.3.4.2 The annual report also requires (yes/no) were all corrective action plans reviewed in accordance with established procedures. Since only approved plans will be uploaded to IWorQ, this should be answered yes. A no answer should be explained in the comments section of the annual report.
- 4.3.4 Educate public employees, businesses and the general public concerning the hazards and damage to water quality associated with illegal dumping and connections to the storm sewer and the improper disposal of waste. This management measure, goals and annual report requirements are described in sections 2.2 and 2.4 above.
- 4.3.5 Encourage and promote citizen reporting of illegal spillage, dumping or otherwise disposal of materials into the MS4 storm sewer system by developing and implementing a public reporting system. This management measure, goals and annual report requirements are described in section 3.1.11.4 above.

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Section 5 - Construction Site Stormwater Runoff Control

Section 4.2.4 of the Permit requires the City of Bartlett to *develop, implement and enforce a construction site stormwater runoff pollutant control program*. Additionally, the program must address pollutants in stormwater runoff from construction activities that result in a land disturbance of one acre or more as well as land disturbances of less than one acre when part of a larger common plan of development or sale. Some elements of this section overlap with elements in other sections of the Stormwater Management Program and will not be repeated here. When applicable, those elements shall be referenced.

5.1 Minimum Program Requirements. The program must include the following items. When these items have a management measure specified in the Permit, those management measures and the activities/BMPs will be addressed.

5.1.1 An ordinance to require erosion prevention and sediment controls (EPSCs) as well as sanctions to enforce compliance.

5.1.1.1 *Stormwater ordinance (OPR: Engineering) (OCR: Code Enforcement).* The City of Bartlett has a stormwater ordinance in place to satisfy this permit requirement. The ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012.

5.1.1.1.1 Section 14-206(11)(a)(iv) requires that EPSC BMPs are in place prior to beginning construction.

5.1.1.1.2 Section 14-211 contains the enforcement response and abatement actions the City may take to enforce compliance.

5.1.1.1.3 Attachment 1 of the ordinance lists the initial administrative assessment for violations of the ordinance. Enforcement response is outlined in [Section 9](#) herein.

5.1.2 Requirements for construction site operators to implement appropriate EPSC best management practices (BMPs) consistent with the TDEC EPSC Handbook.

5.1.2.1 *Stormwater ordinance (OPR: Engineering) (OCR: Code Enforcement).* The City of Bartlett has a stormwater ordinance in place to satisfy this permit requirement. The ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012.

5.1.2.1.1 Section 14-206(1) list the design and BMP manuals for EPSCs in the City of Bartlett. The list includes the TDEC EPSC handbook.

5.1.2.1.2 Section 14-206(11)(a)(iv) requires that EPSC BMPs are in place prior to beginning construction.

5.1.2.1.3 Section 14-206(11)(c) provides for the Program Manager to stop construction or administer other enforcement actions when EPSC measures are not in place or maintained.

5.1.3 Requirements for design storm for all waters as well as special conditions for unavailable parameter waters or exceptional Tennessee waters consistent with the current Tennessee construction general permit (CGP).

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

- 5.1.3.1 *Stormwater ordinance (OPR: Engineering) (OCR: Code Enforcement).* The City of Bartlett has a stormwater ordinance in place to satisfy this permit requirement. The ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012.
- 5.1.3.1.1 Section 14-206(6) contains the general design storm requirements for permanent stormwater management.
- 5.1.3.1.2 Although a specific design storm for EPSCs consistent with the Tennessee CGP is not listed, Section 14-206(11) requires construction activities to be in compliance with applicable permits. This would include the Tennessee CGP design storm.
- 5.1.3.1.3 The requirement for the design storm will be more fully described in the next change to the City's stormwater ordinance. The ordinance is planned for revision after issuance of a new Phase 1 permit to the City of Memphis and any appeal actions for that permit.
- 5.1.4 An inventory of actively permitted public and private construction sites. This management measure uses spreadsheets that contain the required information listed in subpart 4.2.4.d of the permit. All construction activities meeting the land disturbances limits must submit a Notice of Intent (NOI) to obtain coverage under the TDEC Construction General Permit. A copy of the NOI is also submitted to the Engineering Department as part of the plan review and approval process. The City of Bartlett uses the NOI, the Notice of Coverage (NOC) and the TDEC permit database website to maintain the City's inventory system current.
- 5.1.4.1 *Measurable goals.* The measurable goal for this management measure is to maintain an up-to-date inventory with all information identified in subpart 4.2.4.d of the permit.
- 5.1.4.1.1 Microsoft® Excel Spreadsheet (OPR: Engineering). A Microsoft® Excel spreadsheet (NPDES Permits) is used to duplicate the appropriate information obtained from the NOI, NOC and TDEC website. The spreadsheet is located in the Stormwater Management Program file on the Engineering Department shared server. In addition to using the information for the NPDES Permits spreadsheet, the information is also used to schedule and track recurring inspections outlined in Section 5.1.8, Inspection and Enforcement. The Stormwater Inspection Schedule (SWI Schedule) spreadsheet is also located in the Stormwater Management Program file on the Engineering Department shared server. Updates to the spreadsheets are made upon receipt of NOIs, NOCs, and Notice of Terminations (NOTs) or updates to the TDEC permit database. A comparison to the TDEC website information is normally accomplished monthly to ensure accuracy of the data.
- 5.1.4.1.2 The lat/long coordinates of the construction site is included in the spreadsheet. When this data is imported into the GIS system, the site locations can be mapped.
- 5.1.4.2 *Annual Report Requirement.* The annual reporting requirement for this management measure is to report the total number of active construction activities and the total number of active non-priority construction activities with incomplete inventory information.
- 5.1.4.2.1 Active construction activities is defined here as active permits that have had active construction at some point during the reporting period. This number is the total number of permits listed on the SWI Schedule spreadsheet, minus those that have been terminated, on the ending date of the reporting period, minus those that have not had active construction during the reporting period.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

- 5.1.4.2.2 Non-priority construction activities with incomplete inventory information should be reported as zero (0). Activities with incomplete inventory information should not receive an NOC and therefore would not be permitted yet.
- 5.1.5 Requirements for construction site operators to control waste. The Permit requires the City of Bartlett to establish requirements that *operators control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites to avoid adverse impacts on water quality.*
- 5.1.5.1 *Stormwater ordinance (OPR: Engineering) (OCR: Code Enforcement).* The City of Bartlett has a stormwater ordinance in place to satisfy this permit requirement. The ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012.
- 5.1.5.1.1 Section 14-206(11)(b) contains the requirement for operators to control waste at construction sites.
- 5.1.5.1.2 Section 14-211 provides for enforcement and abatement of violations of the City's stormwater ordinance.
- 5.1.5.1.3 Attachment 1 of the ordinance provides for initial assessments for violations of the City's stormwater ordinance. Violation of section 14-206(11)(b) of the ordinance is specifically addressed.
- 5.1.6 Specific procedures for construction site plan review and approval. The Permit requires the City of Bartlett to have *specific procedures for construction site plan (including erosion prevention and sediment controls) review and approval.*
- 5.1.6.1 The City of Bartlett's subdivision regulation provides the specific procedures for plan submittal, review and approval. An erosion prevention and sediment control element of the process is included.
- 5.1.6.2 The City of Bartlett's stormwater ordinance requires a copy of the construction site Stormwater Pollution Prevention Plan be submitted to the Director of the Department of Engineering and Utilities as part of the approval process. Approval of the construction project is subject to a favorable review by the Director and issuance of a Notice of Coverage from the TDEC.
- 5.1.6.3 A standard operating procedure, Construction Plan Review and Approval, has been developed to provide standard procedures for the review and approval of construction plans (see [Attachment 7](#)).
- 5.1.7 Mechanisms or plans for public access to information on new development and redevelopment projects. These mechanisms or plans for public access to information on new development and redevelopment projects have been described in section 3.1.7 herein.
- 5.1.8 Procedures for inspectors to evaluate and document construction site compliance. The City of Bartlett uses several procedures to meet this permit requirement. For the purpose of these inspections, an active construction site is a construction site with active earth disturbing activities. An inactive construction site is a construction site with no active earth disturbing activities and is stable.
- 5.1.8.1 *Routine Inspections (OPR: Engineering) (OCR: Code Enforcement).* Inspectors routinely visit active construction sites to inspect for compliance with construction codes

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

and specifications. During these routine visits, noticeable problems with the installed erosion prevention and sediment control BMPs are brought to the attention of the site supervisor for correction. Routine inspections may or may not be documented depending upon the degree of non-compliance.

- 5.1.8.2 *Compliance Inspections (OPR: Engineering)*. Compliance inspections are conducted at least once each month on all active priority construction sites and at least 10% of active non-priority construction sites or when corrective action has not been taken to correct deficiencies discovered during routine inspections. The inspectors use the Stormwater Inspection Report ([Attachment 3](#)) to document compliance inspections. Compliance inspections are scheduled and documented using the Microsoft® Excel spreadsheet described in Section 5.1.4.
- 5.1.8.3 *Blight Inspections (OPR: Code Enforcement)*. Blight inspections are conducted twice a week for all active and inactive construction sites. The purpose of these inspections is primarily to identify deficiencies that create an image of blight for the community. From a stormwater pollution prevention aspect, these conditions include mud/sediment in the streets and erosion prevention and sediment control BMPs that are in need of maintenance. Blight inspections are documented on a Microsoft® Excel spreadsheet maintained by the Department of Code Enforcement.
- 5.1.8.4 *Priority Construction Activities Inspections (OPR: Engineering) (OCR: Code Enforcement)*. Priority construction activities are defined in Section 5.1.10, Priority Construction Activities. Active priority construction activities are inspected at least once each month as described above for compliance inspections. Inactive priority construction sites will receive a compliance inspection if significant deficiencies are noted during blight inspections.
- 5.1.8.5 *Enforcement (OPR: Engineering) (OCR: Code Enforcement)*. Corrective action for deficiencies discovered during blight inspections are processed through the Department of Code Enforcement. If corrective action has not occurred within 10 days of notification to the owner, the Director for Code Enforcement may ask that enforcement actions be started in accordance with the City's stormwater ordinance or the Department of Public Works may contract to have the deficiencies corrected. Cost is assessed against the owner's tax bill. Enforcement for all other inspections is processed in accordance with the procedures in [Section 9](#), Enforcement, and the stormwater ordinance.
- 5.1.8.6 *Non-priority Construction Activities Inspections (OPR: Engineering) (OCR: Code Enforcement)*. The Permit requires that, at a minimum, 10% of all non-priority construction activities be inspected at least once during the reporting period. Active non-priority construction activities are inspected at least once each month as described above for compliance inspections. Inactive non-priority construction activities will receive a compliance inspection if significant deficiencies are noted during blight inspections.
- 5.1.9 Requirements for inspectors to maintain certification under the Tennessee Fundamentals of Erosion Prevention and Sediment Control, Level 1.
- 5.1.9.1 *Level 1 Certification (OPR: Engineering) (OCR: Code Enforcement)*. The Director for each department shall determine who within their departments are required to obtain and maintain this certification. Although 100% inspector and key staff member certification is desirable, availability of funding and construction activity must be considered. As of the publication date of this program, all inspectors assigned to the Department of Engineering and Utilities and construction code enforcement inspectors assigned to the Department of Code Enforcement are required to have this certification.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Directors may, at their discretion, elect to attend or send someone else to a Level 1 certification class as a means to remaining current with changing rules as they relate to stormwater pollution prevention.

5.1.9.2 *Level 2 Certification (OPR: Engineering).* The plan reviewers are registered Professional Engineers (PEs) in the state of Tennessee and are not required to maintain Level 2 certifications. The Director for the Department of Engineering and Utilities may, at his/her discretion, elect to attend, or send an engineer to, a Level 2 certification class to remain current with changing rules as they relate to stormwater pollution prevention.

5.1.10 Priority construction activities. The Permit defines those construction activities discharging directly into or immediately upstream of waters of the state recognized as unavailable condition for siltation or Exceptional Tennessee Waters be considered priority construction activities. The City has the discretion to define other construction activities as priority construction activities.

5.1.10.1 *Priority Construction Activities.* Construction activities that discharge directly into or immediately upstream of the stream segments listed in the following table shall be considered priority construction activities. As of the publication date of this program, these streams appear on the 2024 Clean Water Act Section 303(d) list and the TDEC GIS mapping tool as having unavailable parameters for siltation. There are no Tennessee Exceptional Waters within the City of Bartlett jurisdictional area.

Stream Segment	Stream Name
TN08010209 002-0500	Buckhead Creek
TN08010209 002-0400	Oliver Creek
TN08010209 002-1000	Loosahatchie River
TN08010209 002-2000	Loosahatchie River
TN08010200 023-0100	Unnamed Tributary to Fletcher Creek

5.1.10.2 *Pre-construction Meetings.* The Permit requires that a pre-construction meeting be conducted for all priority construction activities. The City of Bartlett requires a pre-construction meeting for all construction activities that require permitting through the National Pollution Discharge Elimination System regardless of priority construction activity status. The pre-construction meeting is normally convened after all plan reviews have been completed, a Notice of Coverage has been issued and immediately before work commences.

5.1.10.3 *Inspections.* The Permit requires that an inspection of priority construction activities be conducted at least once per month. Inspections for priority construction activities are conducted as described in section 5.1.8 above.

5.1.10.4 *Documentation.* The Permit requires the documentation of procedures including related meetings and inspections. All documentations for construction activities are maintained in the activity's file maintained on the Department of Engineering and Utilities shared file server. Inspection reports are maintained in the Stormwater section of the server and transferred to the activity's file when the activity is completed.

5.2 Management Measures, Goals and Annual Report Requirements. This section addresses the management measures identified in the Permit that are required to be reported as part of the annual report. Those items previously addressed will not be repeated but the applicable section will be referenced.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

- 5.2.1 Regulatory mechanism is required to be consistent with the currently effective Tennessee Construction General Permit (CGP). This management measure will not be a reporting element for the annual report until after a subsequent CGP has been issued. See section 5.2.1.2 below.
- 5.2.1.2 *Measurable Goals.* Modifications to ordinances or other regulatory mechanisms for construction site runoff control must be effective and implemented within 18 months of the effective date of the CGP with an effective date after September 20, 2026.
- 5.2.1.3 *Annual report requirement.* Identify if the regulatory mechanisms for construction site runoff control have been updated to be consistent with CGP and are effective and implemented within 18 months of the effective date of the subsequent CGP.
- 5.2.2 An inventory of actively permitted public and private construction sites that result in a total land disturbance as defined in subpart 4.2.4d of the Permit. This management measure is described in section 5.1.4 above.
- 5.2.3 Construction site plans review and approval. This management measure is described in section 5.1.6 above.
- 5.2.3.1 *Measurable Goals.* Review and approve (or deny) 100% of all plans submitted for new development and redevelopment projects in accordance with the procedures established.
- 5.2.3.2 *Annual Report Requirements.* There are two elements required for annual reporting.
- 5.2.3.2.1 The total number of development and redevelopment plans reviewed during the reporting period is maintained in a Microsoft® Excel spreadsheet maintained in the stormwater management program portion of the Department of Engineering and Utilities shared file server.
- 5.2.3.2.2 The second element is a simple yes/no to were all new development and redevelopment projects reviewed in accordance with the established policy and procedures. Unless there is an exception, this will always be reported as yes. A no response should be explained in the comments section of the annual report.
- 5.2.4 Mechanisms or plans for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new development and redevelopment projects. The description of this management measure, measurable goals and annual reporting requirements are described in section 3.1.7 herein.
- 5.2.5 Procedures for permittee inspectors to evaluate and document construction site compliance. This management measure is described in section 5.1.8 above.
- 5.2.5.1 *Measurable Goals.* Inspect a minimum of 10% of active non-priority construction sites in accordance with the Stormwater Management Program. Active non-priority construction activities are inspected at least once each month as described for compliance inspections in section 5.1.8.2 above.
- 5.2.5.2 *Annual Report requirements.* There are two (2) elements required for annual reporting.
- 5.2.5.2.1 The total number of active non-priority construction activities. This number is obtained from the SWI spreadsheet described in section 5.1.4 above. The total number of non-priority construction activities as of the last day of the reporting period

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 5 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

is counted. The number of non-priority construction activities that have been issued NOTs and the number of inactive non-priority construction activities is deducted from the total. The remaining number is then reported in the annual report.

- 5.2.5.2.2 The second element is a simple yes/no to were all non-priority construction activities inspections conducted in accordance with the Stormwater Management Program. Unless there is an exception, this should always be reported as yes. A no response should be explained in the comments section of the annual report.

- 5.2.6 Priority construction activities. This management measure is described in section 5.1.10 above. There are two (2) measurable goals and three (3) reporting requirements associated with this management measure.

- 5.2.6.1 *Measurable Goals.* There are two (2) measurable goals associated with this management measure.

- 5.2.6.1.1 Conduct Pre-construction meetings for 100% of Priority Construction Activities. Pre-construction meetings are described in section 5.1.10 above.

- 5.2.6.1.2 Inspect 100% of all Priority Construction Activities at least once per calendar month. Inspections are described in section 5.1.10 above.

- 5.2.6.2 *Annual Report Requirements.* There are three (3) elements required for annual reporting.

- 5.2.6.2.1 Total number of Priority Construction Activities. This number is obtained from the SWI spreadsheet described in section 5.1.4 above. The total number of Priority Construction Activities is counted and the number reported in the annual report.

- 5.2.6.2.2 The second element is a simple yes/no to did all Priority Construction Activities have a Pre-construction Meeting. Unless there is an exception, this should always be reported as yes. A no response should be explained in the comments section of the annual report.

- 5.2.6.2.3 The third element is a simple yes/no to were all Priority Construction Activities inspected at least once per calendar month. The inspection dates are recorded on the SWI spreadsheet. Unless there is an exception, this should always be reported as yes. A no response should be explained in the comments section of the annual report.

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Section 6 – Post-Construction/Permanent Stormwater Management in New Development and Redevelopment (waived under a settlement agreement)

Section 4.2.5 of the Permit requires the City of Bartlett include the following items to manage post-construction stormwater at all new development and redevelopment projects that disturb one (1) acre or more of land, or less than one acre if part of a larger common plan of development, and discharge into the MS4. ***Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. Although updates or changes to this section may be made to be consistent with the most current edition of the Phase 2 MS4 permit, implementation will not occur pending issuance and settlement of a Phase 1 permit for the City of Memphis.***

6.1 Minimum Program Requirements. The Permit requires the City of Bartlett to *develop and implement a permanent stormwater management program to reduce pollutants in stormwater discharges through management practices, control techniques, and system, design, and engineering practices implemented to the maximum extent practicable (MEP) as set forth below.*

6.1.1 Plans review and inspections. The plan review and approval process is described in section 5.1.6 herein. In addition to the inspections described in section 5.1.8, inspections concerning permanent SCMs are described in sections 6.1.2.1, 6.6 and 6.7 below.

6.1.2 Ordinance. The City of Bartlett *must develop and implement, and modify as necessary, an ordinance to address permanent stormwater management at new development and redevelopment projects.*

6.1.2.1 Stormwater ordinance. The City of Bartlett stormwater ordinance, § 14-207, addresses the operations, maintenance and inspection of permanent stormwater management facilities. § 14-211 addresses enforcement response and abatement as well as the maximum penalty for violations which meets the maximum penalties as specified in TCA 68-221-1106. The stormwater ordinance will be modified to address the Permit requirements for permanent stormwater control measures upon issuance and settlement of a Phase 1 permit for the City of Memphis.

6.1.2.2 Subdivision regulation. The City of Bartlett subdivision regulation, Article III, § 2, addresses the design requirements for stormwater drainage. Article IV, § 5 also addresses design requirements included for non-residential subdivisions. The subdivision regulation will be modified to address the Permit requirements for permanent stormwater control measures upon issuance and settlement of a Phase 1 permit for the City of Memphis.

6.1.3 Implementation Plan. An implementation plan consistent with the Permit requirements of subpart 4.2.5.1d of the permit will be submitted within 90 days upon issuance and settlement of a Phase 1 permit for the City of Memphis or as required for the implementation plan for the City of Memphis, whichever is greater.

6.2 Permanent Stormwater Standards. The Permit requires the permanent stormwater management program to *require new development and redevelopment projects to be designed to reduce pollutants to the MEP. Compliance is determined by designing and installing SCMs complying with the requirements of Tennessee Rule 0400-40-10-04. For design purposes, total suspended solids (TSS) may be used as an indicator for the reduction of pollutants. Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. This Permit requirement will be developed in accordance with the time lines specified for the City of Memphis upon issuance and settlement of a Phase 1 permit to the City of Memphis.*

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW
DEVELOPMENT AND REDEVELOPMENT

- 6.2.1 Treatment Capacity. The Permit requires that SCMs be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the SCM. This design requirement will be included in the stormwater ordinance and the subdivision regulation when modified upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.2.1.1 SCMs used shall be consistent with those contained in the current edition of the Tennessee Permanent Stormwater Management and Design Guidance Manual. This requirement will be included in the stormwater ordinance and the subdivision regulation when modified upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.2.1.2 Application of innovative SCMs is encouraged. §14-206(1) of the City of Bartlett stormwater ordinance encourages designers and engineers to use new and innovative techniques that perform to at least the minimum standards contained in the stormwater design and BMP manuals. This requirement will be included in the stormwater ordinance and the subdivision regulation when modified upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.2.2 Water Quality Treatment Design Storm. The Permit defines the design storm as a 1-year, 24-hour storm event as defined by Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent.
- 6.2.2.1 This requirement will be included in the stormwater ordinance and the subdivision regulation when modified upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.3 **Stormwater Mitigation and Public Stormwater Fund.** The Permit provides the City of Bartlett with the flexibility to develop an offsite mitigation program or payment in lieu into a public stormwater fund, or both, to offset the portion of the water quality treatment volume that cannot be treated on site to the maximum extent practicable. The City of Bartlett has elected not to establish an offsite mitigation program nor a stormwater fund.
- 6.4 **Water Quality Riparian Buffers.** The Permit requires the City of Bartlett to *develop and implement a set of requirements to establish, protect and maintain permanent water quality riparian buffers to provide additional water quality treatment in riparian areas of new development and redevelopment projects that contain streams, including wetlands, ponds, and lakes.* Section 8 of the Permit defines a water quality riparian buffer as a *permanent strip of natural perennial vegetation adjacent to a stream, river, wetland, pond or lake that contains dense vegetation made up of grass, shrubs and/or trees.*
- 6.4.1 The Permit requires permanent water quality riparian buffers be a minimum of 30 feet wide for waters with available parameters for siltation or habitat alteration and unassessed waters. A 60 foot buffer is required for waters with unavailable parameters for siltation or habitat alteration. Widths are measured from top of bank.
- 6.4.2 Appendix A of the City of Bartlett stormwater ordinance contains the requirements concerning waterway buffers. The minimum buffer is established as 60 feet from surveyed top of bank.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW
DEVELOPMENT AND REDEVELOPMENT

- 6.4.3 Article II, §6(B) of the City of Bartlett subdivision ordinance requires buffers of greenbelt area along aquatic resource streams in accordance with the stormwater ordinance. These greenbelts are required to be dedicated to the City of Bartlett.
- 6.4.4 Management Measure. The management measure for this reporting item is to develop and implement a set of requirements to establish, protect and maintain permanent water quality riparian buffers.
- 6.4.4.1 Appendix A of the City of Bartlett stormwater ordinance establishes and implements the requirements for water quality riparian buffers.
- 6.4.4.2 In order to protect and maintain these permanent water quality buffers, Appendix A of the City of Bartlett stormwater ordinance requires water quality riparian buffers be deeded to the City of Bartlett, ensuring no future development or use outside those uses authorized in the Permit.
- 6.4.4.3 Attachment 1 of the City of Bartlett stormwater ordinance provides for administrative assessments for failure to maintain buffer zones.
- 6.4.5 Measureable Goals. The measurable goals for this management measure is 100% of projects must have the buffer as required by subpart 4.2.5.4 of the Permit (30 or 60 feet).
- 6.4.6 Annual Report Requirement. (Yes/No) *Did all of the projects approved meet the buffer requirements of subpart 4.2.5.4 of the Permit?* Unless there is an exception, this should always be answered as yes. If there was an exception, an explanation should be provided in the comments section of the Annual Report.
- 6.5 **Codes and Ordinance Review and Update.** The Permit requires the City of Bartlett to *continue to implement the existing permanent stormwater management program and update legal instruments according to the compliance schedule in subpart 4.2.5.1d of the Permit.* See section 6.1.3 above.
- 6.5.1 Stormwater Ordinance. § 14-207 of the City of Bartlett stormwater ordinance addresses the operations, maintenance and inspection of permanent stormwater management facilities. § 14-211 addresses enforcement response and abatement as well as the maximum penalty for violations which meets the maximum penalties as specified in TCA 68-221-1106. The stormwater ordinance will be modified to address the Permit requirements for permanent stormwater control measures upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.5.2 Subdivision Regulation. Article III, § 2 of the City of Bartlett Subdivision Regulation addresses the design requirements for stormwater drainage. Article IV, § 5 also addresses design requirements included for non-residential subdivisions. The subdivision regulation will be modified to address the Permit requirements for permanent stormwater control measures upon issuance and settlement of a Phase 1 permit for the City of Memphis.
- 6.5.3 Annual Reporting. There is no reporting requirement for this management measure.
- 6.6 **Development Project Plan Review, Approval and Enforcement.** The Permit requires the City of Bartlett to *develop and implement a project plan review, approval and enforcement procedures applicable, at a minimum, to all new development and redevelopment projects, which shall include:*
- 6.6.1 Procedures for review and approval of plans. Section 5.1.6 describes the plan review and approval process.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

- 6.6.2 Design review process that requires SCMs to be properly designed, installed and maintained. ***Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. This Permit requirement will be developed in accordance with the time lines specified for the City of Memphis upon issuance and settlement of a Phase 1 permit to the City of Memphis.***
- 6.6.3 A verification process to document SCMs have been installed per design specifications. ***Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. This Permit requirement will be developed in accordance with the time lines specified for the City of Memphis upon issuance and settlement of a Phase 1 permit to the City of Memphis.***
- 6.6.4 Management Measure. The management measure for this reporting item is to develop, implement and enforce policies and procedures for submittal and review of plans as required by subpart 4.2.5.6 of the Permit (section 6.6 of this Program). Section 5.1.6 describes this management measure.
- 6.6.5 Measurable Goals. The measurable goal for this management measure is to establish policies and/or procedures for review and approval (or denial) of plans and review for all new development and redevelopment projects. Section 5.1.6 describes these policies and procedures.
- 6.6.6 Annual Report Requirements. There are two annual report requirements for this management measure.
- 6.6.6.1 *Total number of all new development and redevelopment projects reviewed.* A Microsoft® Excel spreadsheet maintained in the stormwater management program portion of the Department of Engineering and Utilities shared file server contains the total number of development and redevelopment plans reviewed during the reporting period.
- 6.6.6.2 *Number of new development and redevelopment projects reviewed in accordance with the established policy and procedure.* This number should match the number of the total number of development and redevelopment plans reviewed. If there was an exception, an explanation should be provided in the comments section of the annual report.
- 6.7 **Maintenance of Permanent Stormwater Control Measure Assets.** ***Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. This Permit requirement will be developed in accordance with the time lines specified for the City of Memphis upon issuance and settlement of a Phase 1 permit to the City of Memphis.*** The Permit requires the City of Bartlett to *develop and implement a program to require implementation of appropriate SCM maintenance procedures to sustain pollutant reduction efficiency for the life of the new development or redevelopment project.* The program must include:
- 6.7.1 The development and documentation of maintenance and inspection procedures.
- 6.7.1.1 All SCMs shall be inspected at least once every five (5) years.
- 6.7.1.2 Inspections are to be conducted by the City of Bartlett, a licensed professional engineer (PE), a licensed landscape architect or other qualified professional familiar with the applicable SCM design and maintenance requirements.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW
DEVELOPMENT AND REDEVELOPMENT

- 6.7.2 The development and documentation of the procedures the City of Bartlett will use to verify that SCMs are being inspected and maintained.
- 6.7.3 Clear, documented, legally binding agreements assigning SCM maintenance responsibilities.
- 6.7.4 An allowance or agreement for City of Bartlett personnel to access the SCMs for inspections and provide enforcement action for failure to maintain SCMs.
- 6.7.5 Management Measures. There are two management measures associated with this Permit requirement.
- 6.7.5.1 *Develop, implement and enforce policies and procedures for SCM installation verification as required by subpart 4.2.5.6 of the Permit.*
- 6.7.5.2 *Establish and maintain adequate legal authority assigning SCM maintenance responsibility and personnel access to the SCM and provide for enforcement action as required by subpart 4.2.5.7 of the Permit.*
- 6.7.6 Measurable Goals. There are three measurable goals associated with this Permit requirement.
- 6.7.6.1 *Verify that 100% of SCMs are installed per design specifications in accordance with the approved plan within 90 days of installation.*
- 6.7.6.2 *The permittee must have the legal authority to access SCMs and assigned maintenance responsibility for 100% of all SCMs.*
- 6.7.6.3 *The permittee must enforce as directed in the appropriate legal authority for 100% of all SCMs that have not been properly maintained.*
- 6.7.7 Annual Report Requirements. There are five annual reporting requirements for this Permit requirement.
- 6.7.7.1 *Total number of sites verified that SCMs are installed per design specifications within 90 days of installation.*
- 6.7.7.2 *(YES/NO) Were all SCMs installed per design specifications in accordance with approved plans?*
- 6.7.7.3 *(Yes/No) Does the permittee have adequate legal authority as required by subpart 4.2.5.7 for all SCMs installed?*
- 6.7.7.4 *Number of SCMs that have not been properly operated or maintained.*
- 6.7.7.5 *(Yes/No) Have enforcement actions been taken in accordance with the appropriate legal authority or ERP?*
- 6.8 **Inventory and Tracking of Permanent Stormwater Control Measure Assets. Under a settlement agreement with the TDEC, this portion of the permit is not applicable to the City of Bartlett. This Permit requirement will be developed in accordance with the time lines specified for the City of Memphis upon issuance and settlement of a Phase 1 permit to the City of Memphis.**

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 6 – POST-CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

- 6.8.1 The permit requires the City of Bartlett to implement and maintain a system to inventory and track the status of all public and private SCMs installed on new development or redevelopment projects.
- 6.8.2 The inventory and tracking system must be a searchable database that retrieves SCM information by location or other similar identification. The system should include information and records the permittee will use to demonstrate that SCMs are properly maintained, including but not limited to:
- 6.8.2.1 A brief description of the type of SCM and basic design characteristics.
 - 6.8.2.2 The responsible party contact information.
 - 6.8.2.3 Inspection schedules (both permittee and responsible party).
 - 6.8.2.4 A brief description of or reference to maintenance procedures and frequency.
 - 6.8.2.5 Photographs of the installed SCMs.
 - 6.8.2.6 Maintenance and inspection records.
- 6.8.3 Management Measures. The management measure associated with this Permit requirement is to implement and maintain a system to inventory and track the status of all public and private SCMs as required by subpart 4.2.5.8 of the Permit.
- 6.8.4 Measureable Goals. There are two measureable goals associated with this Permit requirement.
- 6.8.4.1 *The system must be made available to the Division or members of the public upon request.*
 - 6.8.4.2 *100% of all SCMs must be included in the inventory tracking system with complete information.*
- 6.8.5 Annual Report Requirements. There are four annual report requirements associated with this Permit Requirement.
- 6.8.5.1 *Total number of request for the inventory.* This number includes request made by the TDEC as well as the public.
 - 6.8.5.2 *(Yes/No) Are all SCMs in the inventory tracking system?*
 - 6.8.5.3 *(Yes/No) Do all SCMs in the inventory tracking system have complete information?*
 - 6.8.5.4 *Beginning with the 2025 annual report, submit the SCM tracking system information with the annual report.*

Section 7 - Pollution Prevention/Good Housekeeping

Section 4.2.6 of the Permit requires the City of Bartlett to *develop and implement an operation and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations*. The goals of this program are to prevent or reduce the amount of storm water pollution generated by municipal operations and conveyed into receiving waters, train employees on how to incorporate pollution prevention and good housekeeping techniques into municipal operations and identify appropriate BMPs and measurable goals for preventing or reducing the amount of stormwater pollution generated by municipal operations and facilities.

7.1 Employee Training (OPR: Engineering) (OCRs: Public Works and Parks). The Permit requires the program to include employee training *for employees responsible for municipal operations at facilities within the jurisdiction of the permittee that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s*. The employee training program is described in [section 2.4](#) herein.

7.2 Operation and Maintenance Program (OPR: Engineering) (OCRs: Public Works and Parks). The Permit requires the City of Bartlett to *develop an operation and maintenance (O&M) program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained to reduce the discharge of pollutants from the MS4*.

7.2.1 Standard Operating Procedures. The City of Bartlett has developed numerous Standard Operating Procedures (SOPs) in an effort to minimize potential impacts of municipal activities on water quality. One of the primary goals of these SOPs is to provide time tested, accepted routine procedures to minimize the release of pollutants from a site during the performance of municipal operations. Each owning agency has a copy of the applicable SOP and is responsible for its contents. Each SOP is contained in [Attachment 7](#) of this appendix.

7.2.2 Municipal Facilities Stormwater Pollution Prevention Plans. Each municipal facility that handles, stores or generates pollutants has an existing fixed facility inventory plan that identifies the pollutants of concern for that facility and inspection certification. New stormwater pollution prevention plans (SWPPPs) are being developed for these facilities and will be implemented as they are developed.

7.2.2.1 A SWPPP will be prepared for Public Works Fleet Services, Public Works Maintenance area, Public Works Solid Waste Transfer Station, Public Works Grounds Maintenance and Parks Maintenance.

Facility	SWPPP Implementation
Public Works Fleet Services	2024
Parks Maintenance	2025
Public Works Maintenance Area	2026
Public Works Solid Waste Transfer Station	2027
Public Works Grounds Maintenance	2027

7.2.2.2 Each SWPPP is maintained by the owning facility.

7.2.2.3 A comprehensive facility inspection (checklist contained in SWPPP) shall be performed and documented at least once each reporting period. The completed inspection certification form will be maintained with the SWPPP and a copy forwarded to the City of Bartlett Stormwater Coordinator for record keeping and annual reporting. Facilities will use the existing fixed facility plan until the SWPPP for that facility is developed and is implemented.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 7 – POLLUTION PREVENTION/GOOD HOUSEKEEPING

- 7.2.3 Management Measures. The management measures for employee training are addressed in section 2.4 herein. There are two management measures addressing the O&M program.
- 7.2.3.1 *Develop and implement an O&M facility plan.* The O&M plan is a combination of employee training (section 2.4 herein), SOPs (section 7.2.1 above) and facility SWPPPs (section 7.2.2 above).
- 7.2.3.2 *Facility site inspections.* Existing facility plans are being utilized to conduct facility inspections. Once the new SWPPP for a facility has been developed, the comprehensive facility inspection checklist contained in the SWPPP will be used.
- 7.2.4 Measurable Goals. The measurable goals for employee training are addressed in section 2.4 herein. There are two measurable goals addressing the O&M program.
- 7.2.4.1 *All applicable municipal operations must have an O&M facility plan.* Section 7.2.2 list the facilities that have an O&M facility plan.
- 7.2.4.2 *Conduct a facility site inspection in accordance with the Stormwater Management Program at all municipal operation facilities at least once every 12 months.* Facility site inspections are required to be conducted at least once per reporting period. Documentation of these inspections are maintained by the facility owner and the Stormwater Coordinator.
- 7.2.5 Annual Report Requirements. Annual report requirements for employee training are addressed in section 2.4 above. There are three annual report requirements for the O&M program.
- 7.2.5.1 *Number of municipal facilities.* As detailed in section 7.2.2 above, there are five (5) municipal facilities.
- 7.2.5.2 *(Yes/No) Do all municipal operations facilities have an O&M plan?* This question shall be answered yes. As of the publication date of this document, Fleet Services has an updated plan. Other facilities will continue using their existing facility plans until new SWPPPs are developed.
- 7.2.5.3 *Number of municipal operations facilities NOT inspected in accordance with the Stormwater Management Program in the previous 12 months.* Unless there is an exception, this item will be answered “0”. Exceptions shall be explained in the comments section of the report.

Section 8 – Stormwater Management Program Modification

Section 4.4 of the Permit allows the City of Bartlett to make stormwater management program modifications in accordance with the following:

- 8.1 Minor Modifications.** Minor modifications that add, but neither subtract nor replace, components, controls or requirements to the stormwater management program may be made at any time.
 - 8.1.1 Minor modifications do not require formal public notice but should be included in the Annual Report.
 - 8.1.2 Minor modifications that replace an ineffective or infeasible BMP/SCM which is specifically identified in the Stormwater Management Program shall be included in the Annual Report to include:
 - 8.1.2.1 A description of the replacement BMP/SCM.
 - 8.1.2.2 An analysis of why the former BMP/SCM was ineffective or infeasible.
 - 8.1.2.3 Expectations on the effectiveness of the replacement BMP/SCM.
 - 8.1.2.4 An analysis of why the replacement BMP/SCM will ensure the optimization of equipment use.
 - 8.1.3 Additions of facilities covered under the Permit will be included in the Annual Report.
- 8.2 Major Modifications.** Major modifications are modifications that subtract BMPs/SCMs, components, controls or requirements of the Stormwater Management Program.
 - 8.2.1 Major modifications require formal public notice as described in section 3.1.6 herein. TDEC-DWR shall be included in the distribution list.
 - 8.2.2 Modifications may not be made unless it can be clearly demonstrated that the eliminated of the component will allow the Stormwater Management Program to continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream. Modifications will be included in the subsequent Annual report to include:
 - 8.2.3.1 A description of the component that has been eliminated.
 - 8.2.3.2 An analysis of why the component was ineffective or infeasible.
 - 8.2.3.3 A detailed explanation of why, with the elimination of this component, the Stormwater Management Program will continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream.
- 8.3 Annual Report Requirements.** Annual report requirements are described in sections 8.1 and 8.2 above.
- 8.4 Transfer of Ownership, Operational Authority or Responsibility.** The City must implement the Stormwater Management Program in any new areas added to the City as expeditiously as practicable, but not later than one (1) year from the addition of the new area.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 8 – STORMWATER MANAGEMENT PROGRAM MODIFICATION

- 8.4.1 Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented within one (1) year.
- 8.4.2 Within 90 days, the City must have a plan for implementation in newly annexed areas.
- 8.4.3 Information on newly annexed areas and resulting updates required to the Stormwater Management Program must be included in the Annual Report.

Section 9 - Enforcement

Section 4.5 of the Permit requires the City of Bartlett to develop and implement an enforcement response plan (ERP) that *sets out the MS4's potential responses to violations and addresses repeat violations through progressive enforcement as needed to achieve compliance*. It is envisioned that the ERP consist of a suite of tools including policies and ordinances to achieve compliance. Policies developed to achieve the goals of this program element shall be included in this section of the Stormwater Management Program. Any ordinance and regulatory tools not already in place shall be included in revisions to the stormwater ordinance or subdivision regulation as applicable.

9.1 Stormwater Ordinance. The City's stormwater ordinance was adopted upon its third reading at a meeting of the Board of Mayor and Alderman on November 13, 2012 and includes the ERP. This ordinance provides the City of Bartlett with the legal authority and ability to employ progressive enforcement actions as described in the Permit and to escalate enforcement responses where necessary to address persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm.

9.2 Enforcement Actions. The Permit requires the ERP to describe *how the MS4 will use each of the following types of enforcement responses*.

9.2.1 Verbal Warnings. *At a minimum, verbal warnings should be as specific as possible to the nature of the violation and be documented.* §14-211(1)(a) of the City's stormwater ordinance provides for verbal warnings. Verbal warnings issued during routine inspections shall be documented in the applicable inspection log, a copy of which will be provided to the Stormwater Coordinator for tracking purposes. Verbal warnings resulting from response to complaints through the *iWorQ System* will be documented in the *IWorQ System*.

9.2.2 Written Notices. *Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.* §14-211(1)(b) of the City's stormwater ordinance provides for written notification in the forms of notices of non-compliance and notices of violations. Corrective action is expected to be completed within seven days.

9.2.3 Citations with Administrative Penalties. The ERP must *indicate when the MS4 will assess monetary penalties, which may include civil and administrative penalties.* §14-211(2) of the City's stormwater ordinance provides for civil and administrative penalties. §14-211 also provides for enforcement to be applied progressively until compliance is achieved but allows enforcement to be administered in any sequence the Manager deems appropriate for the violation.

9.2.4 Stop Work Orders. The MS4 must *have the authority to require activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.* §14-211(1)(b) of the City's stormwater ordinance gives the Manager authority to issue an order to cease and desist. Additionally, Article IV, §12(B) of the subdivision ordinance gives the Manager authority to issue a stop work order for failure of a developer to comply with any portion of that ordinance.

9.2.5 Withholding of Plan Approvals or Other Authorizations. *Where a facility is in non-compliance, the ERP may address how the MS4's approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.* §14-211(1)(e) of the City's stormwater ordinance authorizes the Director to withhold approvals or other authorizations.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 9 – ENFORCEMENT

- 9.2.6 Civil Penalties. *The MS4 must have the authority for the maximum penalties per day for each day of violation as specified in TCA 68-221-1106. §14-211(2)(b) of the City's stormwater ordinance authorizes assessments of civil penalties up to the maximum amount permitted by TCA 68-221-1106.*
- 9.2.7 Additional Measures. *The MS4 may also use other escalated measures provided under local legal authorities. The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and material. Article 4, §7(A)(1), of the City's subdivision regulation provides authority to the Program Manager to make the necessary improvements to eliminate an erosion problem and requiring the owner to pay all expenses associated with the work. The same authority is provided in §14-207(8) of the City's stormwater ordinance.*
- 9.2.8 Enforcement Response. *Initial response to complaints will not exceed seven (7) calendar days.*
- 9.2.8.1 *When an illicit discharge has been confirmed, enforcement action shall be taken within seven (7) days of confirmation of the illicit discharge.*
- 9.2.8.2 *Corrective actions (illicit discharge elimination) will begin as soon as possible with the discharge eliminated within 14 calendar days of confirmation of the illicit discharge. If corrective action cannot be completed within 14 calendar days, a corrective action plan is required.*
- 9.2.8.3 *If the responsible party or source of a confirmed illicit discharge cannot be identified, the illicit discharge shall be referred to the local TDEC environmental field office within 14 calendar days of completing the investigation. All records and documents will be provided in the referral*
- 9.3 **NPDES Permit Referrals.** *The Permit requires the City of Bartlett to report construction activities or industrial facilities that are subject to the construction general permit or the industrial general permit to the local environmental field office in the following cases:*
- 9.3.1 No Permit. *If the MS4 becomes aware of a construction or industrial activity that must be permitted under an NPDES permit but the activity is not permitted.*
- 9.3.2 Noncompliance. *If the MS4 has not been able to bring an NPDES permitted activity into compliance with the MS4s stormwater and water pollution related ordinances using the MS4s enforcement mechanisms and protocols. §14-211 of the City's stormwater ordinance provides authority to the Program Manager to file a complaint with the TDEC if he/she feels it is necessary to obtain compliance.*
- 9.4 **Enforcement Tracking.** *The Permit requires the City of Bartlett to track instances of non-compliance either in paper files or electronically.*
- 9.4.1 Electronically. *The iWorQ System described in Section 4 is utilized to track instances of non-compliance as well as the actions taken to obtain compliance. These enforcement actions are normally not construction related.*
- 9.4.2 Paper Files. *Paper files are utilized to augment the electronic files for construction projects where a project file is maintained. All written enforcement correspondence is scanned and maintained in portable document format (PDF) for the length of time specified in the stormwater ordinance or the Permit, which ever is longer.*

- 9.5 **Requirements for Chronic Violators.** The Permit requires the City of Bartlett to *identify chronic violators of any Stormwater Management Program component and reduce the rate of noncompliance recidivism*. The City of Bartlett uses the enforcement tracking procedures identified in Section 9.4 as well as the enforcement actions described in Section 9.2 to identify chronic violators. §14-211(2)(b) of the City's stormwater ordinance provides for additional enforcement for chronic violators.
- 9.6 **Annual Report Requirements.** Tracking data in iWorQ and the paper files for construction activities are used to provide a summary of the enforcement actions during the reporting period. The number of each type of enforcement action, described in section 9.2., is to be reported.

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Section 10 – Stormwater Monitoring and Program Evaluation

10.1 Monitoring Program, Sampling Requirements and Reporting.

10.1.1 Monitoring. The Permit requires the City of Bartlett to *develop and implement a monitoring and assessment program that provides data and information to identify pollutant sources and aids in determining the effectiveness of the stormwater management program. A description of this program must be included in the Stormwater Management Program.* The Permit provides for two options that the City may choose from to meet the objectives of the monitoring program. *Regardless of the option chosen, the permittee shall perform monitoring as prescribed for stream segments subject to EPA approved TMDLs as applicable to the MS4 jurisdiction.* The City of Bartlett has elected to develop a jurisdictional-specific monitoring plan in compliance with the objectives for option 2.

10.1.1.1 Option 2 Monitoring Plan. The monitoring plan must meet, at a minimum, the objectives of subpart 4.6.1.1 a through e of the Permit.

10.1.1.1.1 Justification for stream selections. Those streams selected for bacteriological and nutrient sampling are identified on the most recent State's 303(d) list as having unavailable parameters for pathogens and nutrients. Streams with unavailable parameters for siltation will not be sampled directly but shall be monitored through construction inspections. Two (2) segments of the Loosahatchie River will not be included in any sampling since the City of Bartlett MS4 does not have outfalls directly connected to them.

Stream Segment	Stream Name	E.Coli	Nutrients
TN08010209 002-0400	Oliver Creek	X	X
TN08010209 002-0500	Buckhead Creek	X	X
TN08010209 002-0700	Howard Creek	X	X
TN08010209 002-1000	Loosahatchie River	N/A	N/A
TN08010209 002-2000	Loosahatchie River	N/A	N/A
TN08010210 001-0100	Harrington Creek	X	X
TN08010210 023-0100	Unnamed Tributary to Fletcher Creek	X	N/A

Table 10-1, Streams to be Sampled

10.1.1.1.2 Identification and source determination of pollutants of concern. This objective is met through the use of the 303(d) list. The list identifies the pollutant of concern and the source. Section 10.1.1.1.3.5 below describes the process for isolating the pollutant source if the source is a point discharge.

Water Body Name	Pollutant of Concern	Pollutant Source
Oliver Creek	Nutrients, sedimentation/siltation and Escherichia coli	Discharges from MS4 area and land development
Buckhead Creek	Dissolved oxygen, sedimentation/siltation, nutrients and Escherichia coli	Discharges from MS4 area and land development
Howard Creek	Nutrients and Escherichia coli	Discharges from MS4 area
Harrington Creek	Dissolved oxygen, nutrients and Escherichia coli	Discharges from MS4
Loosahatchie River (TN08010209 002-1000)	Mercury, lead, chlordanes, PCBs, dioxin, nutrients, sedimentation/siltation, physical substrate habitat alterations, and Escherichia coli	Contaminated sediment, discharges from MS4 area, crop production, atmospheric deposition, land development

APPENDIX 1 – STORM WATER MANAGEMENT PROGRAM
SECTION 10 – STORMWATER MONITORING AND PROGRAM EVALUATION

		and channelization
Loosahatchie River (TN08010209 002-2000)	Escherichia coli, nutrients, physical substrate habitat alterations, and sedimentation/siltation	Discharges from MS4 area, crop production, land development, and channelization.
Unnamed Tributary to Fletcher Creek	Alteration in stream-side or littoral vegetative covers, arsenic, dissolved oxygen, physical substrate habitat alterations and Escherichia coli	Discharges from MS4 and channelization

Table 10-2, Pollutants of Concern and Source Identification from 303(d) List

10.1.1.1.3.3 Monitoring Details. As of the publication date, Waypoint Analytical, Inc. has been selected to collect and analyze samples and report results to the City of Bartlett.

10.1.1.1.3.3.1 Bacteriological stream sampling is performed in streams that have been identified with unavailable parameters for pathogens ([Table 10-1](#)) utilizing methods identified in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water. Water quality parameters are not required to be obtained.

10.1.1.1.3.3.2 Nutrient stream sampling is performed in streams that have been identified with unavailable parameters for nutrients ([Table 10-1](#)) utilizing methods identified in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water. Water quality parameters are not required to be obtained. Sampling will be for total nitrogen and total phosphorous.

10.1.1.1.3.3.3 At least one sample a month for 12 months will be collected for stream segments as identified in [Table 10-1](#) within a five-year period. A set of five samples will be obtained during one of the months of June through September for each stream segment in order to calculate a geometric mean. This set will replace the normal monthly sampling for that segment. The following table outlines the sampling schedule

Stream Segment	Stream Name	Sample Year
TN08010209 002-0400	Oliver Creek	2027
TN08010209 002-0500	Buckhead Creek	2026
TN08010209 002-0700	Howard Creek	2027
TN08010210 001-0100	Harrington Creek	2025
TN08010210 023-0100	Unnamed Tributary to Fletcher Creek	2024

10.1.1.1.3.3.4 Sampling locations will be at the established TDEC monitoring sites whenever possible. However, additional locations may be required for source identification or more effective land use monitoring. When identifying additional monitoring locations, station identification numbers will be established using the procedures found in the TDEC Quality System Standard Operating Procedure for Chemical and Biological Sampling of Surface Water, Protocol B. Station identification numbers for the unnamed tributary to Fletcher Creek and Harrington Creek were established using Protocol B. The following table identifies the sampling sites that will be used as of the publication date of this Program.

Stream Name	Location	Coordinates	Station ID
Oliver Creek	At Old Brownsville Road, south of bridge	-89.764830	OLIVE001.3SH
		35.263708	
Buckhead Creek	At Old Brownsville Road, south of bridge	-89.801716	BUCKH002.1SH
		35.261746	

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 10 – STORMWATER MONITORING AND PROGRAM EVALUATION

Howard Creek	At Old Brownsville Road, south of box culvert	-89.864729	HOWAR002.1SH
		35.258023	
Harrington Creek	At Elmore Road	-89.880476	HARRI002.5SH
		35.191118	
Unnamed tributary to Fletcher Creek	At Stage Road, north of bridge	-89.870557	FLETC4.4TO1.0SH
		35.204515	

- 10.1.1.1.3.5 If any monthly sampling analysis for pathogens results in an exceedance of 941 CFU/100 mL, another sample, obtained by City of Bartlett personnel, will be obtained upstream of the normal monitoring location at the first junction of any blue line branches. This sampling is intended to help isolate the source of the exceedance. Sample locations will continue upstream until the exceedance no longer occurs. At this point, the source should be between the point of exceedance and the point of non-exceedance. Additional sampling may be required to more accurately locate the source.
- 10.1.1.1.3.6 Analytical monitoring for stream segments subject to TMDLs shall be performed as prescribed in the TMDL. As of the date of publication of this Program, an EPA approved TMDL for E.coli exists for the Loosahatchie River and for Fletcher Creek. These TMDLs do not specifically list a monitoring requirement. Future TMDLs will be reviewed to assess their impact on this portion of the Plan.
- 10.1.1.1.4 Records Requirements. Sampling reports provided by WayPoint Analytical, Inc. shall be maintained in the Stormwater Management Program portion of the Engineering shared file server. Sampling results shall be documented in an Excel spreadsheet for ease of access for comparison to historical sampling for trend analysis. All monitoring records will be maintained for a minimum of three years or for the length of the permit period, whichever is longer. The request for bids requires the contractor to include information required by section 7.13 of the permit with sampling results
- 10.1.1.1.5 Description of how the City of Bartlett will evaluate stormwater impacts to receiving streams. Visual Stream Surveys (VSSs) will be performed immediately upstream and downstream of each outfall equivalent in size to a 30" diameter pipe that discharges into a stream segment as identified in section 10.1.1.1.3.3 above. The VSS will be scored to evaluate the stormwater impacts on the receiving stream.
- 10.1.1.1.5.1 The City of Bartlett performs the VSS using a modified version of the State of Maryland Department of Natural Resources visual stream assessment. A copy of the survey form is at [attachment 7](#) of this appendix.
- 10.1.1.1.5.2 In addition to recording the information on the VSS form, photographs of the outfall, the stream bank across from the outfall, the upstream side of the outfall and the downstream side of the outfall (as applicable) shall be taken.
- 10.1.1.1.5.3 The data collected will be stored electronically and linked to the outfall identification tag in such a way as to allow sorting of the data by the numerical score associated with the outfall. Sorting in this manner allows for prioritizing expenditure of funds for future mitigation or stream bank repair.
- 10.1.1.1.6 Description of how data will be gathered to inform program decisions and prioritization of future activities related to the protection of water quality. This program requirement has been fully described above.
- 10.1.1.1.7 Acknowledgement that TDEC protocols will be used for instream monitoring. This program requirement has been fully described above.

APPENDIX 1 – STORM WATER MANAGEMENT PROGRAM
SECTION 10 – STORMWATER MONITORING AND PROGRAM EVALUATION

- 10.1.1.1.8 Provisions for an administratively continued small MS4 permit. The procedures and methods described in this section will continue until a new permit is issued by the TDEC. If a new permit is not issued in 2027, four (4) years will be added to the each date identified in section 10.1.1.1.3.3 and sampling continued as described. Modifications to the program may be made after 2027 based upon the results obtained from the 2022 permit cycle. Any changes are to be coordinated with the TDEC.
- 10.1.1.1.9 On November 11, 2023, the City of Bartlett was notified that the TDEC Division of Water Resources acknowledged receipt of an acceptable Option 2 monitoring plan, as described herein. Any changes to the monitoring plan will need to be coordinated through TDEC.
- 10.1.2 Sampling Methods and Procedures. Sampling methods and procedures are fully described in section 10.1.1 above.
- 10.1.2.1 *Representative Sampling.* Sampling at those sampling sites identified in section 10.1.1 are representative for the streams being sampled. They are located at points where the stream segments leave the jurisdictional areas of the City of Bartlett.
- 10.1.2.2 *Test Procedures.* Sample testing is accomplished by a certified testing laboratory as described in section 10.1.1 above.
- 10.1.3 Annual Report Requirements. The Permit requires the City of Bartlett to perform monitoring in accordance with the Stormwater Management Program.
- 10.1.3.1 The measurable goal for this management measure is to perform monitoring in accordance with the approved Option 2 monitoring plan.
- 10.1.3.2 There are three (3) annual report requirements.
- 10.1.3.2.1 (Yes/No) Monitoring for the reporting year has been performed in accordance with 4.6.1.1.2 (Option 2). Unless there is an exception, this will always be answered as yes.
- 10.1.3.2.2 Provide a summary of monitoring results. Provide a brief synopsis of the pathogen, nutrient and VSS results. For pathogen and nutrients, report the high and low sampling results, average for the year and the mean obtained from the five in 30 day sampling. Include the identification of any sources that may have been eliminated as a result of sampling investigations. For VSSs, report the number performed and average score. Indicate if any maintenance resulting from the VSS.
- 10.1.3.2.3 Upload a copy of all monitoring data. Upload a copy of all reports for pathogen and nutrient sampling. Upload the completed VSS forms.
- 10.2 Stormwater Management Program Evaluation**
- 10.2.1 The Permit requires the City of Bartlett to conduct an annual evaluation of the City's stormwater management program to evaluate compliance with the terms and conditions of the permit.
- 10.2.1.1 The evaluation shall be conducted while preparing the annual report.
- 10.2.1.2 If the management measures of the permit are being met, the program is in compliance with the terms and conditions of the permit.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
SECTION 10 – STORMWATER MONITORING AND PROGRAM EVALUATION

10.2.1.3 If management measures are not being met, identify the shortfalls and corrective actions required to achieve compliance.

10.2.2 The Permit also requires the City of Bartlett to conduct an annual evaluation of the effectiveness of the BMPs, components or controls of the stormwater management program.

10.2.2.1 The evaluation shall be conducted while preparing the annual report.

10.2.2.2 Ensure BMPs, components or controls of the stormwater water management program are contributing to meeting the management measures of the Permit.

10.2.2.3 BMPs, components or controls that are not effective in achieving management measures should be considered for replacement.

10.2.3 Annual report requirements for stormwater management program evaluation

Management Measure	Measurable Goals	Annual Report Requirement
Conduct an annual evaluation of the current Stormwater Management Program for every reporting period.	Summarize evaluation results	Narrative description
	Identify modifications or replacement of an ineffective activity/control measure/component/BMP	Narrative description
	Summarize the assessment results and any modifications and improvements scheduled to be implemented in the next reporting period to improve the program or remedy deficiencies or weaknesses	Narrative description
MCM status determination	Indicate compliance status for each of the six MCMs and the monitoring program	Compliant with Permit requirements? Yes/No If no, provide more details.

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Attachment 1

Outfall Reconnaissance Inventory Report

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**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 1 – OUTFALL RECONNAISSANCE INVENTORY REPORT**

Outfall Reconnaissance Inventory Report

Section 1: Background Data

Outfall No: _____	Current Weather Conditions: _____
Outfall Type: ☐ Inlet ☐ Outlet	
Date of Inventory: _____	
Inventoried By: _____	
Camera Picture No: _____	
Land Use in Drainage Area (Check all that apply)	Notes: _____
☐ Industrial	_____
☐ Urban Residential	_____
☐ Suburban Residential	_____
☐ Open Residential	_____
☐ Commercial Urban	Known Industries: _____
☐ Commercial Rural	Known Industries: _____
☐ Open Area	_____
☐ Other: _____	_____

Section 2: Outfall Description

Location	Material	Shape	Dimensions (Inches)	Submerged
☐ Closed Pipe	☐ RCP ☐ PVC ☐ Steel ☐ CMP ☐ HDPE ☐ Other: _____	☐ Circular ☐ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimension: _____	In Water: ☐ No ☐ Partially ☐ Fully
☐ Open Drainage	☐ Concrete ☐ Earthen ☐ Rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
Flow Present? ☐ Yes ☐ No (If no, Skip to Section 4)				

Section 3: Physical Indicators for Flowing Outfalls

Indicator	Present?	Description	Relative Severity Indices M(1-3)		
Odor	☐ Yes ☐ No	☐ Sewage ☐ Sulfide ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Other: _____	☐ 1-Faint	☐ 2-Easily Detected	☐ 3-Noticeable from a distance
Color	☐ Yes ☐ No	☐ Clear ☐ Brown ☐ Orange ☐ Yellow ☐ Green ☐ Gray ☐ Red ☐ Other: _____	☐ 1-Faint	☐ 2-Easily Detected	☐ 3-Noticeable from a distance
Turbidity			☐ 1-Slight	☐ 2-Cloudy	☐ 3-Opaque
Floatable	☐ Yes ☐ No	☐ Human Sewage ☐ Suds ☐ Petroleum sheen ☐ Other: _____	☐ 1-Few Origin not obvious	☐ 2-Some indication of origin	☐ 3-Some; origin clear

Section 4: Physical Characteristics of Headwall

Indicator	Present?	Description	Comments
Headwall Damage	☐ Yes ☐ No	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐ Yes ☐ No	☐ Oily ☐ Paint ☐ Flow Line ☐ Other	
Abnormal Vegetation	☐ Yes ☐ No	☐ Excessive ☐ Inhibited	
Poor Pool Quality	☐ Yes ☐ No	☐ Odors ☐ Oil Sheen ☐ Suds ☐ Floatables ☐ Colors ☐ Other ☐ Excessive Algae	
Pipe Benthic Growth	☐ Yes ☐ No	☐ Brown ☐ Green ☐ Orange ☐ Other	

Section 5: Headwall Potential Failure

☐ Low (unlikely)
☐ Medium (presence of 2 or more indicators)
☐ High (one or more indicators with 3 that are severe)

Section 6: Comments and Any Non-Illicit Discharge Concerns (ex: trash, needed repairs, erosion)

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Attachment 2

Outfall Reconnaissance Inventory Procedures

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Outfall Reconnaissance Inventory Procedures

1. **Procedure:** The following procedures shall be used to facilitate outfall reconnaissance inventories. Coordination between the participating agencies shall be the responsibility of the City of Bartlett Stormwater Coordinator. The agency required to perform a task shall develop and implement any necessary procedures required to fulfill the program or task objectives. In order to more easily detect illicit discharges, inventories shall be accomplished during periods of dry weather.
 - a. Identify and map all outfalls within the City of Bartlett.
 - i. The Department of Engineering Construction Inspection Division shall conduct an initial inventory and inspection of each outfall in the City of Bartlett for the purposes of identifying each outfall, mapping the location and attributes using the GIS system, identifying any required maintenance, and identifying evidence of or actual illicit discharges.
 - ii. After the initial inspection, outfalls not requiring inspections in accordance with Section 1c below will not require any further inspections unless there is a report or evidence of illicit discharges.
 - iii. The Department of Engineering and Utilities GIS Division shall provide watershed basin maps showing the location and identification number for each known outfall to the Construction Inspection Division.
 - iv. Inventories shall be field documented using the Outfall Reconnaissance Inventory Report and by photographing the outfall using a digital camera. The Construction Inspection Division shall develop and use a suitable method for identifying the outfall in the photographs.
 - v. If evidence of or an actual illicit discharge is identified during the inspection, comply with the applicable portions of section 1c below.
 - vi. If an outfall not shown on the watershed basin map is discovered, the approximate location of the outfall shall be annotated on the basin map, the outfall inventoried and an outfall number assigned in accordance with the procedures listed in Section 5 below.
 - vii. If an outfall shown on the watershed basin map can't be located during the inspection, the inspector, Storm Water Coordinator and GIS Division will confer to try to determine the status of the outfall. The Department of Public Works shall assist if so requested. If it is determined that the outfall does not exist, the Outfall Reconnaissance Inventory Report shall be annotated as such and processed as described below and the outfall data shall be removed from the GIS mapping system.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 2 – OUTFALL RECONNAISSANCE INVENTORY PROCEDURES

- viii. The completed Outfall Reconnaissance Inventory Report shall be delivered to the GIS Division and the digital pictures transferred to a common file server.
 - ix. The GIS Division shall update the GIS mapping system to include the outfall attributes required for tracking and scheduling using the data collected on the Outfall Reconnaissance Inventory Report.
 - x. The GIS Division shall electronically scan the completed inventory form and store the electronic version and the associated outfall photograph in a common file together.
 - xi. If outfall maintenance is required, comply with the procedures listed in Section 1b below.
 - xii. The electronic forms shall be maintained for the life of the outfall.
- b. Identify and repair outfalls that require maintenance.
- i. When an Outfall Reconnaissance Inventory Report indicates that an outfall requires maintenance, the GIS Division shall forward the inventory form to the Stormwater Coordinator after scanning.
 - ii. The Stormwater Coordinator shall send the outfall number, location of the outfall, description of the maintenance required and a digital photograph of the outfall to the Department of Public Works.
 - iii. The Department of Public Works shall take the necessary action to repair the outfall or defer the work based upon their assessment of the outfall, availability of personnel and availability of funds.
 - iv. After the required maintenance has been performed or the work deferred, the Department of Public Works shall provide the Stormwater Coordinator with the work order (ticket) number, date and action taken. If the work was deferred, an explanation for deferral shall be included.
 - v. The Stormwater Coordinator shall provide the information to the GIS Division for inclusion in the electronic file with the previously scanned outfall inventory report and digital photograph.
 - vi. The repair information will be attached to the inspection form and filed in accordance with section 1a(xii) above.
- c. Detect illicit discharges and direct correction of the cause.
- i. The Construction Inspection Division shall inspect each outfall with a discharge dimension of 30" or larger and each open channel discharge point draining an area of 50 acres or more that discharge directly into waters of the State (see

**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 2 – OUTFALL RECONNAISSANCE INVENTORY PROCEDURES**

Section 4) as directed by the Stormwater Coordinator. More frequent inspections may be warranted based upon the presence of an illicit discharge.

- ii. Inspections shall be documented using the applicable procedures outlined in section 1a above.
- iii. If an illicit discharge is detected, the inspector shall attempt to determine the source of the discharge.
- iv. If the source can be identified, the inspector shall notify the Stormwater Coordinator of the source and type of discharge.
- v. The Stormwater Coordinator shall initiate action to have the illicit discharge stopped using procedures in the City of Bartlett Stormwater Ordinance or the Enforcement Response Plan.
- vi. If the cause of the discharge can not be readily identified, the inspector shall notify the Stormwater Coordinator of the type and location of the discharge.
- vii. The Stormwater Coordinator shall investigate to the maximum extent possible. If the source still can not be identified, the area shall be monitored on a weekly basis in an attempt to isolate the source.
- viii. Upon source identification, comply with the procedure identified in 1c(v) above.

2. Tracking and Scheduling: The following procedures shall be used to track and schedule outfall inspections.

a. Tracking.

- i. The GIS Division shall develop and implement a method of electronically identifying and storing the initial and subsequent inventories of each outfall. This data shall be maintained for the life of the outfall so as to preserve a history of the outfall inspections.
- ii. The GIS Division shall develop and implement a method to identify and print a list of those outfalls required to be inspected every five years.
- iii. The GIS Division shall update the mapping system and attributes as inventory reports are received. Updating may be delayed until a number of reports have been received to maximize utilization of resources.
- iv. The GIS Division shall provide the Stormwater Coordinator with the percentage of outfalls inventoried, broken out by type of inspection (initial or five year), on a monthly basis.

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 2 – OUTFALL RECONNAISSANCE INVENTORY PROCEDURES

- v. The Stormwater Coordinator shall provide the status of the inventories to the Construction Inspection Division to aid in scheduling the remaining inspections.
 - b. Scheduling.
 - i. Each September, the GIS Division shall provide the initial and five year inventory list and associated basin maps to the Stormwater Coordinator.
 - ii. The Stormwater Coordinator shall prepare a list of which outfalls to be inventoried for the following year and forward the list to the Construction Inspection Division.
 - iii. The Construction Inspection Division shall schedule and conduct the required inventories so they are completed within the time frame required.
- 3. **New outfalls:** When a new outfall is installed as a result of new development or capital improvement project (CIP), the following procedures shall apply.
 - a. Identify and map.
 - i. The GIS Division shall input the outfall location and attributes into the GIS mapping system using the data contained in the development or CIP plans provided for electronic scanning and assign an outfall number.
 - ii. Upon acceptance of the subdivision, the Construction Inspection Division shall conduct an initial inventory of the outfalls in accordance with the applicable portions of section 1a above.
 - b. Scheduling (for Section 1c outfalls only). After the as-built drainage data for the subdivision or CIP has been received, outfall inspection scheduling shall be as described in Section 2b above.
- 4. **Converted or removed outfalls.** When outfalls are removed or converted to a structure other than an outfall, the GIS Division shall remove the outfall from the GIS mapping system and any scheduling system in use. The associated electronic inspections file shall be renamed to indicate the outfall is no longer in use and a memo inserted into the file to indicate the reason, i.e., “converted to man hole”.
- 5. **Outfall Numbering Procedures.** The GIS Division assigns numbers to outfalls shown on the drainage layer of the City of Bartlett GIS mapping system and subsequently submitted plans. Any outfall found during field inventories that are not shown on the drainage layer are known as undocumented outfalls. In order to accurately track undocumented outfalls, a system must be in place to prevent one number being assigned to more than one outfall. The following procedures apply for numbering undocumented headwalls.
 - a. Each Construction Inspection Division inspector is assigned a block of numbers. The blocks are large enough that the inspector should not be in need of another number block.

**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 2 – OUTFALL RECONNAISSANCE INVENTORY PROCEDURES**

- i. Inspector 1: 5000 through 5999
 - ii. Inspector 2: 6000 through 6999
 - iii. Inspector 3: 7000 through 7999
 - iv. Inspector 4: 8000 through 8999
 - b. The inspector discovering the undocumented outfall will assign it the first available number in their number block. The approximate location of the outfall shall be annotated on the basin map used for the inspection. Each inspector must keep track of the last number they used to prevent using the same number more than once.
 - c. When the completed Outfall Reconnaissance Inventory Report is given to the GIS Division, the basin map with the approximate location of the undocumented outfall annotated upon it will also be provided so the GIS Division can add the location and attributes to the GIS mapping and scheduling systems.
6. **Five Year Outfall Inventories.** The following water basins are considered waters of the State. Outfalls with a discharge opening of 30" or greater and open channels draining an area of 50 acres or more which directly discharge into them shall be inventoried at least once every five years, with the goal of 20% inventoried on an annual basis.
- a. **Loosahatchie River Basin.**
 - i. Howard Creek
 - ii. Raner Creek
 - iii. Unnamed Loosahatchie River Tributary (Rockyford Basin)
 - iv. Unnamed Loosahatchie River Tributary (Sandeman Basin)
 - v. Buckhead Creek
 - vi. Oliver Creek
 - b. **Wolf River Basin.**
 - i. Harrington Creek Main Stem
 - ii. Harrington Creek Lateral C and D
 - iii. Harrington Creek Lateral E
 - iv. Unnamed Fletcher Creek Tributary (Basin 1)
 - v. Fletcher Creek Lateral A
 - vi. Fletcher Creek Lateral C
 - vii. Fletcher Creek Lateral D
 - viii. Fletcher Creek Lateral E
 - ix. Fletcher Creek Wolfchase Basin

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Attachment 3

Stormwater Inspection Report

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**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 3 – STORMWATER INSPECTION REPORT**



CITY OF BARTLETT
Department of Engineering 901-385-6499
Department of Code Enforcement 901-385-6425
6382 Stage Road, Bartlett TN 38134-3739

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Monthly Construction Stormwater Pollution Prevention Compliance Inspection Report

Site or Project Name:		NPDES Tracking Number: TNR	
Lot # or Address:		Date of Inspection:	
Contact Name:	Contact Phone:	Name of Inspector:	
Type Inspection: Routine ☐ Complaint ☐ Follow-up ☐		Inspector's TNEPSC Certification Number:	

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Site contact information

Best Management Practices (BMPs).

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly?

1.	Are all applicable EPSCs installed and maintained (silt fences, inlet protection, check dams, etc.)?	☐ N/A	☐ Yes	☐ No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas?	☐ N/A	☐ Yes	☐ No
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts?	☐ N/A	☐ Yes	☐ No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	☐ N/A	☐ Yes	☐ No
5.	Are temporary sediment basins installed, maintained and functioning with sufficient capacity?	☐ N/A	☐ Yes	☐ No
6.	If applicable, have discharges from dewatering activities been managed by appropriate controls?	☐ N/A	☐ Yes	☐ No
7.	Have inactive areas been stabilized within 14 days?	☐ N/A	☐ Yes	☐ No
8.	Are vegetated areas being maintained (mowed, pruned, irrigated, etc.)?	☐ N/A	☐ Yes	☐ No
9.	Are clearing limits, tree protection zones or other buffer zones in place and being observed?	☐ N/A	☐ Yes	☐ No
10.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters?	☐ N/A	☐ Yes	☐ No
11.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained?	☐ N/A	☐ Yes	☐ No
12.	Have all previous deficiencies been addressed?	☐ N/A	☐ Yes	☐ No

Explanation of problems and/or pertinent observations:

Recommendations:

Date of Scheduled Follow-up Inspection (if required):

Site Supervisor Name and Title:	Signature:	Date:
Inspector:	Signature:	Date:

WTNSA-1000

Instructions on reverse

2013-05

Monthly Construction Stormwater Pollution Prevention Inspection Report

Purpose of this form/ Instructions

An inspection shall be performed at least monthly for all priority construction sites and documented on this form.

Inspectors performing the monthly inspections must be a minimum of EPSC Level 1 certified in the Tennessee Erosion Prevention & Sediment Control Program.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation is a violation of the NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems and any other applicable acts or rules.

NOTES:

Item 1: Silt fence should be entrenched and have less than 50% of the height of the silt fence covered in sediment. Inlet protection (other than silt fence) should be kept cleared of accumulated sediment.

Item 2: If a material storage yard is associated with the construction site, it shall be inspected for applicable BMPs.

Item 3: Sediments are being maintained on site. Outlets are free of obstructions such as sediment, litter, etc. Rip-rap and filter cloth are properly installed.

Item 4: Construction entrances built per specifications. Maintenance is being performed to include rock replacement and street sweeping.

Item 5: Installed per specifications with outlet structures functioning properly. Basins being maintained with sediment removed at clean-out elevations. Berms in good condition with no erosion.

Item 6: Water sediment free prior to discharge/draining. Outlet structure control maintained closed except for draining.

Item 7: Seed and mulch applied or other stabilization efforts in effect.

Item 8: Vegetated areas being maintained in accordance with property maintenance ordinances. Height of grass, absence of trash and other construction debris, etc.

Item 9: Delineation devices (safety fence) in place.

Item 10: Wash water being maintained on site and treated prior to discharge.

Item 11: Concrete wash area contained.

Item 12: If this is a follow-up inspection, all previous deficiencies have been corrected.

Attachment 4

Municipal Training Sign-in Sheet Sample

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City of Bartlett
Storm Water Pollution Prevention Program
Municipal General Education Training
Sign-in Sheet

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Return copy of completed form to the Stormwater Coordinator

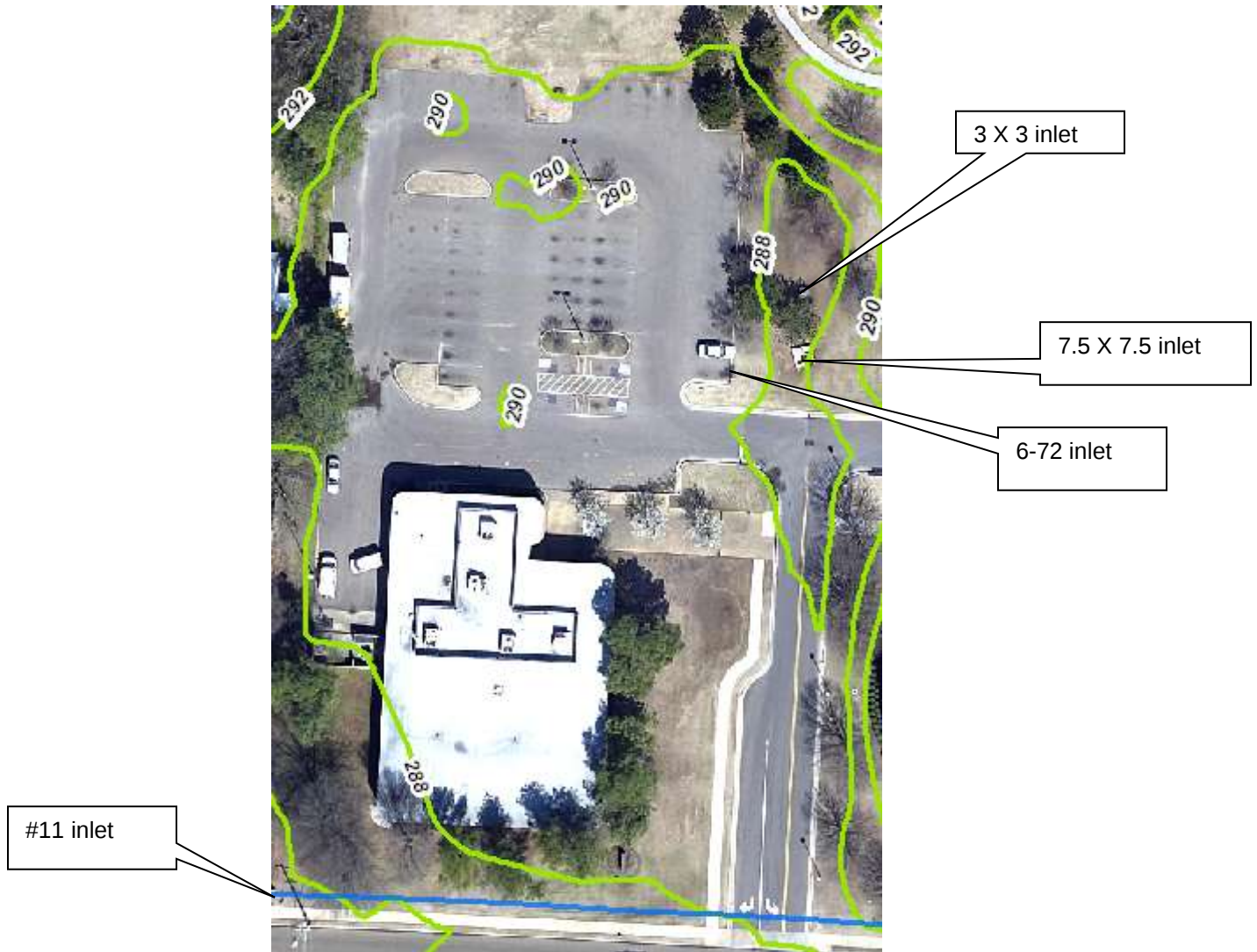
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Attachment 5

Fixed Facility Inventory Sample

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**APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 5 – FIXED FACILITY INVENTORY SAMPLE**



General Information

City Hall Annex
6382 Stage Road
Bartlett TN 38134-3739

Contact Name:
Contact Number:
Coordinates: 89°51'1.56"W 35°12'18.7"N

Facility Type: Other municipal owned and/or operated facility
Subcategory: Public building

Watershed: Wolf River
Sub-watershed: Harrington Creek Lateral C & D
Nearby Water Bodies: City Hall Park ponds
Is facility within 200 feet of an impaired water body? Yes

Facility activities: Administrative

(Continued on back)

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 5 – FIXED FACILITY INVENTORY SAMPLE

Potential Pollutants & Non-storm Water Discharges

1. Parking lot run-off
2. Pesticides
3. Herbicides
4. Trash

Best Management Practices Employed

1. Parking lot run-off.
 - a. Parking lot routinely swept by public works.
 - b. Leaking pool vehicles are taken to Vehicle Maintenance for repair.
2. Pesticides.
 - a. Used in accordance with manufacturers instructions.
 - b. Disposed of in accordance with manufacturers instructions.
3. Herbicides.
 - a. Used in accordance with manufacturers instructions.
 - b. Disposed of in accordance with manufacturers instructions.
4. Trash.
 - a. Disposed of in approved containers.
 - b. Tops of containers kept closed.

Inspection Record

Signature indicates that there have been no changes to the general information, potential pollutants or best management practices employed and that any deficiencies discovered have been reported to the Storm Water Coordinator.

Conducted by	Signature	Date

Attachment 6

Standard Operating Procedures

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City of Bartlett

Shelby County, Tennessee

Asphalt Repair Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Public Works
3585 Altruria Road
Bartlett TN 38135

Matt Crenshaw, Director
Kasey Williamson, General Maintenance Division Manager

September 1, 2024

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SCOPE

The City of Bartlett is responsible for maintaining roadways used by the public. Many times, this maintenance involves repairing pot holes or other surface defects that affect public safety.

Standard Operating Procedures (SOPs) have been prepared for roadway surface asphalt repair activities for the City of Bartlett in an effort to minimize potential impacts on sensitive areas. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to minimize the impact of asphalt repairs on the environment.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for surface asphalt repairs which aid in the reduction of the release of pollutants including petroleum hydrocarbons, toxic organic compounds, oils and greases, metals, suspended solids and water with high pH from entering drainage systems, sensitive areas and water bodies.

PROCEDURES

1. Where feasible, avoid performing asphalt repairs when rain is falling or expected.
2. Sweep slurring and cuttings during the activity to prevent migration off site; do not allow the material to remain on permanent concrete or asphalt overnight.
3. Collect, treat and properly dispose of runoff that comes in contact with diesel or coatings used in the asphalt application.
4. Continually monitor operations to determine whether cuttings or wastewater could enter the Stormwater system. If observations indicate that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment and vacuum truck.
5. Sweep or shovel loose aggregate chunks and dust and collect the material for recycling or proper disposal at the end of each workday.
6. Dispose of collected slurry and cuttings in a manner that does not violate groundwater or surface water quality standards.

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City of Bartlett
Shelby County, Tennessee

Snow and Ice Control
Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Public Works
3585 Altruria Road
Bartlett TN 38135

Matt Crenshaw, Director
Kasey Williamson, General Maintenance Division Manager

September 1, 2024

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SCOPE

The City of Bartlett uses sand and salt as a method of controlling snow and ice on roadways during the winter months. The use of salt can potentially pollute waterways when introduced into the City's drainage system. The City of Bartlett needs to be judicial in the use of salt in an effort to reduce the impact upon the environment but at the same time make the roadways safe for the public to travel upon.

Standard Operating Procedures (SOPs) have been prepared for snow and ice control activities for the City of Bartlett in an effort to minimize potential impacts on sensitive areas. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to minimize the impact of salt on the environment.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for the use of sand and salt for snow and ice control which aid in the reduction of vehicle accidents that may adversely affect sensitive areas. This minimizes pollutants resulting from vehicle accidents such as petroleum, hydrocarbons, heavy metals and road wash off from entering storm drains/drainage systems.

PROCEDURES

1. Store salt in covered storage bin until ready to be loaded on spreaders.
2. Minimize the use of salt by reducing the salt-to-sand ratio to the minimum rate expected to achieve the desired outcome.
3. Apply only as needed using the minimum quantities.
4. Perform before storm hits when streets are generally in good condition and only patches of ice/snow may exist (temperature must be 35 degrees or continuing to drop).
5. Plow snow in areas that allow vegetation to act as a filter and contain sand.
6. Inspect roadway conditions daily during potential icy conditions and apply salt/sand mixture when needed.
7. Sweep or clean up accumulated grit from roads as soon as possible after the road surface clears.
8. Prioritize clean up efforts to minimize impacts on aquatic habitat areas.

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City of Bartlett
Shelby County, Tennessee

Storm Drain Inlet Repair
Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Public Works
3585 Altruria Road
Bartlett TN 38135

Matt Crenshaw, Director
Kasey Williamson, General Maintenance Division Manager

September 1, 2024

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SCOPE

The City of Bartlett is responsible for maintaining the City's storm drainage system. When storm drain inlets are damaged, the City must make repairs in a manner that return the inlets to serviceable condition while at the same time protects the environment from potential pollutants used during the repair.

Standard Operating Procedures (SOPs) have been prepared for storm drain inlet repair activities for the City of Bartlett in an effort to minimize potential impacts on sensitive areas. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to minimize the impact of storm drain inlet repairs on the environment.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for storm drain inlet repairs which aid in the reduction of the release of pollutants cement, mortar or other suspended solids and water with high pH from entering drainage systems, sensitive areas and water bodies.

PROCEDURES

1. Where feasible, avoid performing storm drain inlet repairs when rain is falling or expected.
2. If practical, use a drop cloth in the bottom of the inlet to catch any stray materials used for the inlet repair.
3. If a mortar mix is used, mix the mortar in a suitable container. If mix materials are to be combined on the ground, use a plastic sheet, plywood or other suitable material as a barrier between the ground and the mix.
4. Continually monitor operations to determine whether material or wastewater could enter the storm water system. If observations indicate that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment and vacuum truck.
5. Sweep or shovel loose material and dust and collect the material for proper disposal at the end of each workday.
6. Dispose of collected material in a manner that does not violate groundwater or surface water quality standards.

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City of Bartlett

Shelby County, Tennessee

Street Sweeping Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Public Works
3585 Altruria Road
Bartlett TN 38135

Matt Crenshaw, Director
Jonathan Walker, Grounds Maintenance Division Manager

September 1, 2024

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SCOPE

Street sweeping is an operational best management practice developed to control pollutant discharges by promoting efficient pick-up of sediment, pollutants and debris on city streets, parking lots and other paved surfaces outdoors that carry a large portion of the pollutant load. The operation and maintenance of street sweepers can actually contribute to the problem of storm water pollution. Procedures for sweeping debris and pollutants must be managed appropriately.

Standard Operating Procedures (SOPs) have been prepared for street sweeping activities for the City of Bartlett in an effort to minimize potential impacts of sweeping activities for pollution. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to minimize the release of pollutants from a site during the performance of municipal operations.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for operating the sweeper effectively and efficiently to minimize the amount of pollutants entering storm water drains or waterways as a result of sweeper operations.

PROCEDURES

1. Pre-operation.
 - a. Perform daily maintenance checks.
 - i. All lights to include traffic safety signals are functioning properly.
 - ii. No evidence of fluid leaks.
 - iii. Check brooms and replace as necessary.
 - iv. Report any broken items or items that need repair to management.
 - b. Fuel vehicle taking care not to overfill.
 - c. Fill water tank. Never operate the sweeper without water.
2. Operations.
 - a. Drive sweeper at low speeds to minimize airborne particulates and remove the maximum amount of debris.
 - b. Always use the water system when sweeping to reduce dust and keep pollutants from becoming airborne.
 - c. Avoid sweeping without the use of the water system (dust suppression system). Water also cools the brooms, takes drag off the broom motors and prevents premature wear on the brooms.
 - d. Adjust the brooms pressure as needed for the job site to maximize the amount of pollutants to be removed.
 - e. Avoid sweeping unknown objects or substances that may be potentially hazardous.
 - f. If oil, gas or unknown fluids are noticed coming from the sweeper or on the roadways, notify management immediately so proper procedures can be implemented to contain and clean the spill.
3. Waste Disposal.
 - a. Only dump the sweeper's load at the Solid Waste Complex.
 - b. Remove any caked debris from the sweeper's hopper while at the Solid Waste Complex to reduce the amount of pollutants to be washed out.
 - c. Clean the sweeper and tools on the wash bay at either the Solid Waste Complex or at the Grounds Maintenance Shop. Runoff from these areas go to the sanitary sewer system.
4. Miscellaneous - Report any illegal dumping or areas that need special attention to your manager.

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City of Bartlett
Shelby County, Tennessee

Vacuum Truck Waste Handling
Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Public Works
3585 Altruria Road
Bartlett TN 38135

Matt Crenshaw, Director
Kasey Williamson, General Maintenance Division Manager

September 1, 2024

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SCOPE

The City of Bartlett uses a vacuum truck primarily to remove sewage from sewer systems that are blocked. It can also be utilized to assist in clean-up operations involving sewer overflows as well as excavations involving the use of potting. Waste collected by vacuum trucks must be properly disposed of in order to reduce its potential impact as a source of water pollution.

Standard Operating Procedures (SOPs) have been prepared for vacuum truck waste handling activities for the City of Bartlett in an effort to minimize potential impacts of waste for pollution. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to minimize the release of pollutants from a site during the performance of municipal operations.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for the handling of vacuum truck waste which effectively and efficiently minimize the amount of pollutants entering storm water drains or waterways as a result of waste handling operations.

PROCEDURES

1. Material Discharge Options.
 - a. Gravel and other construction debris will be taken to the Solid Waste Transfer Station and off loaded for delivery to the landfill.
 - b. Sanitary waste and truck rinse water will be disposed of at the Waste Water Treatment Plant.
2. Operations. After handling sanitary wastes, the truck's holding chamber will be washed. The wash water will be managed the same as the sanitary wastes.
3. Miscellaneous - Report any illegal dumping or areas that need special attention to your manager.

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City of Bartlett

Shelby County, Tennessee

Construction Plan Review and Approval Standard Operating Procedure



Prepared by:

City of Bartlett
Department of Engineering and Utilities
6382 Stage Road
Bartlett TN 38134

John Horne, Director
Max Gomez-Pedro, Land Development Engineer

September 1, 2024

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SCOPE

The NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems requires the City of Bartlett to have specific procedures for construction site plan (including erosion prevention and sediment controls) review and approval. The procedures must include an evaluation of plan completeness and overall BMP effectiveness.

Standard Operating Procedures (SOPs) have been prepared for construction plan review and approval. One of the primary goals of this SOP is to provide time tested, accepted routine procedures to effectively review and approve construction plans that minimize the release of pollutants from a construction site. Plan review is normally conducted by the Land Development Engineer but may be accomplished by any EPSC Level 2 certified individual in the Department of Engineering and Utilities.

The City's subdivision regulation and stormwater ordinance requires the submittal of plans for review and approval. They also require that an erosion control plan be included in the submittal. The Planning Department provides a subdivision plan checklist to assist the developer with providing the required material for review and approval. This SOP is intended to address plans once they are submitted and not the communications that may occur between City staff and developer prior to plan submittal.

OBJECTIVE

The objective of this SOP is to provide standard operating procedures for the review and approval of construction plans to effectively and efficiently minimize the amount of pollutants entering storm water drains or waterways because of construction activities.

PROCEDURES

1. Initial submittal
 - a. Is the submittal complete in that it contains the information required by the subdivision plan checklist? Incomplete submittals will not be processed.
 - b. Is the receiving stream exceptional waters or waters with unavailable parameters for siltation? Reference TDEC Mapviewer for stream status and coordinate with TDEC.
 - c. If required, has an NOC been issued by TDEC? Reference CGP for NOC requirements and TDEC Dataviewer for issue status.
 - d. If required, is a SWPPP included?
 - e. Does the SWPPP address the minimum requirements for EPSC as specified in the CGP?
 - f. Are the required number of sheets to address erosion control based upon the size of the construction site included? Reference CGP.
 - g. Are EPSC measures designed to the appropriate design storm (2 year or 5 year)? Reference CGP for the design storm.
 - h. Is a sediment basin required (draining ten acres (five acres if draining to waters with unavailable parameters or exceptional waters) or more to an outfall)? If so, are the design and design calculations included and appear to be accurate and consistent with the design storm?
 - i. If required, are quality riparian buffers identified and the correct size? Reference CGP and the City's stormwater ordinance. The more stringent requirement applies.
 - j. Are the BMPs specified in the project SWPPP included in the erosion control plan?
 - k. Are the BMPs specified in the erosion control plan included in the SWPPP?

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 6 – STANDARD OPERATING PROCEDURES

- l. Are the BMPs specified consistent with those in the TDEC EPSC Handbook and the City's storm water ordinance and specifications?
- m. If non-standard BMPs are specified, is there sufficient data included to determine their effectiveness as compared to traditional BMPs?
- n. Are the BMPs specified appropriate and effective for the locations used?

Plans are marked up and comments are typed. The project is presented to the Planning Commission for approval with conditions. Markups are returned to the project owner for corrections.

2. Subsequent plan submittal

- a. Are the markups included with the corrected plans?
- b. Have the required changes been made?
- c. Have any changes been made to previously reviewed items?

If no changes are required, process as final submittal. Otherwise, return new markups to the plan designer/engineer for corrections.

3. Board of Mayor and Alderman

The project contracts are created and presented to the Board of Mayor and Alderman for approval. This may occur prior to the plans being approved. The Board of Mayor and Alderman approve the project. The plans are not considered approved until the City Engineer/Assistant City Engineer has signed the plans.

4. Preconstruction Meeting

After the project is approved, the plans have been corrected to the satisfaction of the City Engineer/Assistant City Engineer, and an NOC has been issued (if required), a preconstruction meeting is scheduled. The City Engineer/Assistant City Engineer may elect to sign (approve) the plans at this time or delay signature/approval until after the preconstruction meeting. If the project includes a sediment basin, TDEC is invited to attend. After the preconstruction meeting and the plans have been signed, work may begin on the project.

Attachment 7

VISUAL STREAM SURVEY (VSS) REPORT

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Visual Stream Survey Protocol

Outfall ID: _____ Watershed: _____
Stream Segment: _____ Channel Width: _____
Date of Evaluation: _____ Evaluated by: _____

Weather Conditions _____

Dominate Substrate: ☐ Boulder ☐ Gravel ☐ Sand
☐ Silt ☐ Clay ☐ Mud

Obtain at least 4 photos, outfall, bank opposite outfall, downstream and upstream of outfall.

Scoring Conditions on Back of Form (rate from 1 to 10)

Chanel Condition: _____

Riparian Zone: _____

Bank Stability: _____

Pools: _____

Overall Score:
(Total divided by the
numbered scored,
example 32/4=8) _____

<6.0 Poor
6.1 – 7.4 Fair
7.5 – 8.9 Good
>9.0 Excellent

Remarks:

APPENDIX 1 – STORMWATER MANAGEMENT PROGRAM
ATTACHMENT 7 – VISUAL STREAM SURVEY REPORT

Channel Condition			
Natural channel; no structures, dikes. No evidence of down cutting or excessive lateral cutting	Evidence of past channel alteration, but with significant recovery of channel and banks. Any dikes or levies are set back to provide access to an adequate flood plain.	Altered channel; <50% of the reach with riprap and/or channelization; excess aggradation; braided channel. Dikes or levees restrict flood plain width	Channel is actively down cutting or widening. >50% of the reach with riprap or channelization. Dikes or levees prevent access to flood plain.
10	7	3	1

Riparian Zone				
Natural vegetation extends at least two active channel widths on each side	Natural vegetation extends one active channel width on each side. or If less than one width, covers entire flood plain.	Natural vegetation extends half the active channel width on each side	Natural vegetation extends a third of the active channel width on each side. or Filtering function moderately compromised	Natural vegetation less than a third of the active channel width on each side. or Lack of regeneration or Filtering function severely compromised
10	8	5	3	1

Bank Stability			
Banks are stable; banks are low (at elevation of active flood plain); 33% or more of eroding surface area of banks in outside bends is protected by roots that extend to the base-flow elevation	Moderately stable; banks are low (at elevation of active flood plain); less than 33% of eroding surface area of banks in outside bends is protected by roots that extends to base-flow elevation.	Moderately unstable; banks may be low, but typically are high; outside bends are actively eroding (overhanging vegetation at top of bank, some mature trees falling into stream annually, some slope failure apparent).	Unstable; banks may be low, but typically are high; some straight reaches and inside edges of bends are actively eroding (overhanging vegetation at top of bare banks, numerous mature trees falling into stream annually, numerous slope failures apparent).
10	7	3	1

Pools			
Deep and shallow pools abundant; greater than 30% of the pool bottom is obscured due to depth or the pools are at least 5 feet deep.	Pools present, but not abundant; from 10 to 30% of the pool bottom is obscured due to depth, or the pools are at least 3 feet deep.	Pools present, but shallow; from 5 to 10% of the pool bottom is obscured due to depth; or the pools are less than 3 feet deep.	Pools absent, or the entire bottom is discernable
10	7	3	1

Appendix 2

RECORD OF CHANGES

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