

Recertification Notice of Intent (NOI)

Regulated Small Municipal Separate Storm Sewer Systems (MS4's) General Permit ARR040000

You must **complete, certify, and sign** this Recertification Notice of Intent (NOI) form and return it along with the **updated Stormwater Management Program (SWMP)** to the Department in order to continue permit coverage under the General Permit ARR040000. You must submit this form **no later than July 1, 2019**. Please keep a copy of this form for your records once completed and signed.

Permittee Name	Permit Tracking Number	AFIN
City of Bentonville	ARR040009	88-00828

If any changes or additions need to be made to the information shown below, please update the new information in the corrections section below and/or attach documentation.

	Current Information in ADEQ's database	Corrections/Additions, If Needed
Small MS4 Physical Address	117 W. Central Avenue	
County	Benton	
Urbanized/Core Areas	Fayetteville-Springdale-Rogers	
Receiving Stream	McKissic Creek, Little Sugar Creek, Osage Creek, Illinois River, Elk River	
Ultimate Receiving Stream	Arkansas River	
Contact Person & Title	Bob McCaslin , Mayor	Stephanie Orman
Telephone Number	(479) 271-5966	
Cognizant Official & Title	Bob McCaslin , Mayor	Stephanie Orman
Responsible Official & Title	Bob McCaslin , Mayor	Stephanie Orman

Are the mailing and invoice addresses the same?

Yes or No*

*If "No," please provide invoice address: _____

Additional Comments: _____

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

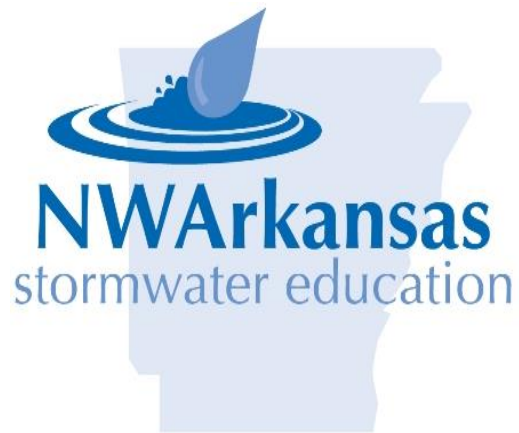
I certify that I have read and will comply with all the requirements of the Regulated Small Municipal Separate Storm Sewer Systems (MS4's) General Permit ARR040000.

Responsible Official Name: Stephanie Orman
 Responsible Official Title: Mayor
 Responsible Official Signature: Stephanie Orman
 Date: 10-27-2019

Return the NOI form to the address below or send it electronically to: water.permit.application@adeq.state.ar.us or via ePortal at the following web address: <https://eportal.adeq.state.ar.us/>

NPDES Permits Section, Office of Water Quality
 Arkansas Department of Environmental Quality
 5301 Northshore Drive
 North Little Rock, AR 72118-5317

City of Bentonville
**STORMWATER
MANAGEMENT PLAN**



City of Bentonville

Permit ARR 040009

CITY OF BENTONVILLE STORMWATER MANAGEMENT PLAN

Background and Context

The Bentonville Stormwater Management Plan (Stormwater Plan) has been developed to provide policy and management guidance for activities affecting stormwater throughout the City of Bentonville. It is intended to help the City fulfill certain State and Federal water quality requirements, and to meet local water resources management objectives. Through the implementation of the policies and management practices embodied in the Stormwater Plan over time, Bentonville hopes to preserve urban stormwater quality, and to develop and preserve the urban drainage infrastructure in a manner that meets the community's needs for years to come.

While the State and Federal regulatory programs place significant emphasis on improving water quality and the health of Arkansas's watersheds, Bentonville, as part of the Illinois River and Grand Lake Watersheds further emphasizes the need for local management of urban stormwater and waterways. It becomes even more important that management of these resources occur in a manner that minimizes destructive long-term impacts to drainage infrastructure and the natural features that help protect water quality and control flooding.

Description of the Permit Area

The City of Bentonville "The City" currently serves a population of 35,301 people (2010) within the city boundaries. The geographic boundaries of the MS4 plan are the City limits and the service area for stormwater planning encompasses approximately 33 square miles. The City has complete authority and responsibility for planning, building, operating, maintaining and regulating the stormwater drainage system within the city limits. Therefore, the MS4 NPDES permit for which this MS4 plan is submitted covers only the area within the City limits. The City lies at the upper east and north portion of the Illinois River Watershed and east portion of the Grand Lake Watershed. The area includes Town Branch Creek, Black Apple Creek, Shewmaker Creek, Hidden Springs Creek, McKissic Creek, Osage Creek, Little Osage Creek, Little Sugar Creek, Pumpkin Hollow Creek, Coler Creek, Hendren Creek, plus Lake Bentonville and Lake Bella Vista and the unnamed tributary streams of the aforementioned streams and lakes. The City's stormwater management practices have evolved to include efficient and cost-effective approaches that reduce or eliminate stormwater pollution and protect the riparian (stream bank) areas of open waterways. These approaches provide natural pollutant removal and stormwater management of system capacity, flood prevention and control. However, the City's revised Stormwater Management Plan is intended to provide comprehensive stormwater management guidance for the entire City organization to systematically cover the Six Control Measures.

Purpose:

The purposes of the Stormwater Plan are threefold. First, the Stormwater Plan characterizes the City's entire stormwater drainage system, including both the open and piped systems, their connections to the streams, and the overall condition of the system. This characterization is necessary to address relevant State and Federal regulatory requirements and it provides baseline information on which to develop focused stormwater management strategies.

Second, the Stormwater Plan establishes goals, policies, and implementation actions that will achieve the City's long-term objectives in a way that is understandable to the public, usable by City staff, and meets regulatory needs. Finally, the Stormwater Plan establishes a means for measuring, reporting, and adaptively managing the City's water resources, by presenting benchmarks that will ensure meaningful progress, as well as ensuring compliance with applicable laws and permit requirements.

Scope and Areas of Focus:

The Stormwater Plan addresses stormwater quality management policies and management practices that are, or will be implemented in the City. The scope of the Stormwater Plan is determined primarily by the Federal MS4 permit requirements, but is intended to address local water resources issues as well. These areas of focus in the Stormwater Plan include:

- **ADEQ-required Municipal Separate Storm Sewer System (MS4) Plan elements.** The NPDES Stormwater Program requires that the City submit a MS4 plan in order to acquire a MS4 permit to legally discharge stormwater to the waters of the U.S.
- **Pollution incidents and unlawful (illicit) discharges to the City's stormwater drainage system.** These discharges can be systematic (recurring) or episodic (occasional or one-time) discharges, and include pollutant runoff from parking lots, discharges from industrial outfalls, accidental spills, vehicular accident discharges, poor construction site management, major fires and firefighting resulting in large discharges, and a variety of ways people dump pollutants into street gutters or catch basins.
- **On-site management of stormwater to reduce the quantity of stormwater and pollution entering the drainage system.** Similar to illicit discharges, events that cause flooding, system surcharges, or ongoing pollutant loading can occur, and originate from a variety of causes. These include inadequacies in the type and design of infrastructure, inadequate maintenance, insufficient erosion and/or sediment control practices, and increases in impervious area without provision for on-site infiltration of stormwater. The City regulates these issues through implementation of the Bentonville Municipal Code within the city limits.
- **Reduction and prevention of pollution at City facilities and resulting from City activities and business practices.** The City provides services with a potential for creating water pollution, erosion, and sedimentation. These include field activities such as ditch cleaning and excavation/maintenance activities, fertilizer and nutrient management, pesticide and herbicide chemicals management, as well as activities at City facilities, such as vehicle washing and maintenance, painting, and material handling such as street sweeper dumping and processing. The Federal NPDES Stormwater Program requires the City to implement pollution prevention practices that reduce or eliminate stormwater pollution from City activities.
- *Beyond this regulatory motivation, it is important that the City lead by example in areas where similar practices and behaviors from citizens and businesses are required.*

Public education geared toward broad community stewardship of water resources. The Federal NPDES Stormwater Program places significant emphasis on public education as part of the long-term solution to stormwater pollution. As such, education is a required element of the Stormwater Plan. The long-term success of the City's efforts will hinge on increased awareness and stewardship throughout the community.

The Stormwater Plan will result in formal, organized educational and outreach efforts that are targeted broadly throughout the metropolitan area. Many of these efforts are most effectively approached on a Northwest Arkansas MS4 basis, through cooperative efforts with the University of Arkansas Extension Service.

- **Public awareness and involvement in the City's Stormwater management program.** Broad awareness and participation in the development and implementation of the Stormwater Plan by residents and local area businesses is a key component to ensure effectiveness of the Stormwater Plan. The Stormwater Plan includes a public involvement component in its development that meets the Federal NPDES program
- **Targeted capital improvements and maintenance programs to improve water quality and restore high priority areas.** Concurrent with the development of the Stormwater Plan, the City continues to evaluate a drainage systems which will update the City's needs assessment and Capital Improvement Program (CIP) for future drainage infrastructure. The Stormwater Plan will support

development and implementation of the Stormwater Drainage Plan and CIP in a manner that helps meet the City's water quality objectives.

The Federal rules and, therefore, ADEQ's permit requirements, direct that the City's MS4 plan address six minimum areas, which are termed "Minimum Control Measures." These areas are broadly titled in the rules as follows:

- Public Education and Outreach on Stormwater Impacts;
- Public Involvement/Participation;
- Illicit Discharges Detection and Elimination;
- Construction Site Stormwater Runoff Control;
- Post-Construction Stormwater Management for New Development and Redevelopment;
- Pollution Prevention in Municipal Operations;

Under each of these areas described above, the City's MS4 plan must contain the following information:

- The structural and non-structural Best Management Practices (BMPs) that the permittee or another entity will implement for each of the stormwater Minimum Control Measures;
- The measurable goals (Benchmarks) for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action; and
- The person or persons responsible for implementing or coordinating the BMPs for the permittees MS4 plan.

In addition to the requirements listed above, the permittee must provide a rationale for how and why each of the BMPs is selected and measurable goals for the permittees stormwater management program.

Stormwater Best Management Practices (BMPs) is a *catch-all* term for approaches to managing stormwater that reduce negative impacts of runoff on the receiving streams. While the term has become widely used by the regulatory agencies and throughout the stormwater management industry, it does *not* imply that each BMP is necessarily the "Best" at achieving a particular stormwater management objective. BMPs are alternatives to practices that reduce the water quality and flow management functions and benefits of the open drainage system such as piping, filling or hardening open drainage ways. BMPs include, but are not limited to:

- physical structures or created natural features such as wetlands or ponds that improve water quality and/or attenuate flow;
- maintenance or construction practices that prevent erosion, control sedimentation, and reduce pollution entering runoff;
- educational strategies that inform the public, developers, business/industry, etc. on stormwater pollution prevention;
- regulations and enforcement programs that protect water quality;
- protection of open drainage ways for stormwater treatment and conveyance, and maintaining adjacent (riparian) buffers to provide natural stormwater filtration, cooling and long-term channel stability and other stormwater management functions; and the avoidance of piping, filling, or deteriorating the condition of open drainage ways.

Overview of Bentonville's Stormwater Drainage Systems

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. The City performs all operation and maintenance on the public drainage system that is designed and constructed to City standards and located within easements or rights-of-way, or real property that has been conveyed or dedicated to the City. The City also maintains open channels throughout the City, and public

outfalls to natural streams within the City's jurisdiction. The geographic area covered by this Plan includes approximately 33 square miles inside the Bentonville city limits.

The City's urban area's stormwater drainage systems also include private stormwater management facilities that help moderate and reduce the volume and pollutant content of stormwater leaving private property and entering the public stormwater drainage system and/or local streams.

Stormwater Drainage Basin Characterization

The City's stormwater drainage system has two major drainages, Osage Creek and Little Sugar Creek. The City is further broken down into several separate tributaries to these streams. A drainage basin can be described as a geographic area within which stormwater drains from many small systems converging on a larger drainage way, ultimately culminating in outfalls to the two major drainage ways. The character and condition of the drainage ways varies significantly throughout the basins, depending on surrounding land uses and contributing drainages.

GOALS, POLICIES, & IMPLEMENTATION ACTIONS

This section provides overall guidance to the City in performing stormwater management activities in a manner consistent with State and Federal laws, while meeting local goals and the long-term outcomes the City hopes to achieve. The following goals are derived from long-term key outcomes that have been reviewed. The policies provide specific direction, consistent with the local goals, and State and Federal requirements. Implementation actions include BMPs discussed in detail in the MS4 plan and other actions needed to achieve local objectives. The work plan for completion of implementation actions is in the Stormwater Plan Implementation Action Summary.

GOAL 1: Protect citizens and property from flooding.

Policies

- 1.1 Maintain surface drainage in the City to reduce the threat of flooding, through proper maintenance of the City's stormwater drainage system infrastructure, with practices that are protective of water quality.
- 1.2 Through the development review process, ensure that new development incorporates adequate stormwater management infrastructure to avoid downstream capacity and water quality problems.
- 1.3 Preserve open stormwater drainage infrastructure where feasible, to best accommodate peak storm flows, maintain flood storage capacity, and promote water quality.
- 1.4 Adhere to standards, policies, and practices which comply with Federal Emergency Management Agency (FEMA) Flood Management Program requirements to insure that the City maintains flood insurance coverage under this program.

Implementation Actions

1. a. Continue evaluation of City maintenance practices and implement appropriate BMPs to assure that the City adequately maintains the stormwater drainage system capacity in an environmentally responsible manner.
1. b. Evaluate and refine the City's drainage program, including educational outreach, inspection, and enforcement components to reduce the negative stormwater impacts from land alteration, erosion, sedimentation, and excessive runoff.
1. c. Continue adding to the City Drainage Master Plan to assess the City's stormwater drainage system and capacity needs, and identify capital improvements and other measures necessary to maintain adequate system capacity for planned community growth.
1. d. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to ensure that the public is aware of the importance of preventing pollution from entering the streams and water bodies of the State.
1. e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize or eliminate erosion and sedimentation in the stormwater drainage system.

1. f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, to ensure that new development is in compliance with flow-regulating management practices, such as detention ponds, on-site stormwater storage, etc.
1. g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, to ensure adequate maintenance of the stormwater system.

GOAL 2: *Improve surface for aquatic life and other beneficial uses.*

Policies

- 2.1 The City will monitor and implement practices and regulatory programs with the objective of improving surface to, at a minimum, address State water quality standards, adequately protect threatened and endangered wildlife, and address the State beneficial use guidelines.
- 2.2 The City will maintain its open channels and waterways in a manner that is protective of their natural stormwater management and habitat functions for the benefit of the citizens of the City, local wildlife, including threatened or endangered species, and future generations.

Implementation Actions

2. a. Promote pollution protection educational efforts, including signage, development project review, and public outreach.
2. b. Enhance erosion and illicit discharge detection and compliance efforts, including permitting and Code enforcement.
2. c. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to enhance citizens' and businesses' knowledge regarding water quality regulations as well as the benefits to the community from properly functioning waterways.
2. d. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to eliminate or minimize toxic discharges from business and industry.
2. e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize sedimentation and channel degradation from construction sites.
2. f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, to ensure long-term functioning of newly-developed sites.
2. g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, to ensure that the stormwater drainage system is maintained in properly functioning condition.

GOAL 3: *Preserve and maintain surface waters, wetlands, and riparian areas.*

Policies

- 3.1 Through the development review process, the City will ensure that development is protective of significant open waterways, wetlands, and riparian areas.
- 3.2 The City will implement permitting programs, educational outreach, compliance inspections and enforcement activities as needed to reduce erosion, sedimentation, illicit discharges, and other pollution impacts to the City's waterways.

Implementation Actions

3. a. The City will review and refine its drainage program, which addresses erosion, sedimentation, and the impacts of land alteration, including permitting, inspections, technical educational and outreach, and enforcement.
3. b. The City will review development proposals for impacts on open drainage ways, wetlands, and riparian areas, and protect the functions and benefits of these areas as provided for in the Code of Ordinances and Drainage Criteria Manual.
3. c. The City will work cooperatively with citizens, businesses, and agencies to protect and improve surface waterways, seek opportunities for stewardship partnerships, further enhance educational opportunities, and continue participation in intergovernmental work groups.

- 3. d. The City will implement and continue to refine/improve BMPs for all City activities with potential to impact water quality and/or the functions of waterways, wetlands, and riparian areas.
- 3. e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to reduce or eliminate sedimentation from construction sites as a contributor to poor water quality and quantity management.
- 3. f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, so new development at a minimum maintains the functioning of the stormwater drainage system, and doesn't contribute to future degradation.
- 3. g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, which is critical to maintaining properly functioning wetland and riparian areas and open channels.

GOAL 4: *Citizens, businesses, and industries understand the need to protect water quality.*

Policies

- 4.1 The City will develop targeted education and outreach and technical assistance programs regarding practices and obligations for keeping debris and pollutants out of the stormwater drainage system and train stakeholder groups in appropriate erosion control and sediment prevention practices, as well as stormwater management BMPs.
- 4.2 The City will seek to form partnerships with neighborhoods or groups interested in providing stewardship of local waterways.
- 4.3 The City will develop, implement, and enforce appropriate building, design, and Municipal Codes to address water quality compliance issues, including pollution, habitat, and aesthetic issues, to encourage the development of urban waterways that are positive amenities in the community.

Implementation Actions

- 4. a. The City will continue to support outreach and education efforts regarding water quality, riparian and wetland areas, including business, contractor, and developer outreach programs to educate these parties about their impacts on stormwater quality.
- 4. b. Continue to maintain enforcement and compliance activities, including inspections, technical assistance, and Code enforcement.
- 4. c. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to engage the public in the efforts to create positive urban amenities.
- 4. d. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to ensure that waterways are safe, meet State water quality standards, and can function as positive amenities.

GOAL 5: *Urban drainage ways become community amenities.*

Policies

- 5.1 The City will conduct education and outreach activities to appropriate target groups to increase understanding of the importance of maintaining safe and clean drainage ways, and to seek volunteers willing to be caretakers for water features near them.
- 5.2 The City will, through the Code of Ordinances, protect existing significant open waterways and encourage site planning and landscaping that enhances the attractiveness and natural functions of the water features.
- 5.3 The City will maintain urban drainage ways in a manner that provides for safe and attractive conditions within the limits of its fiscal constraints.

Implementation Actions

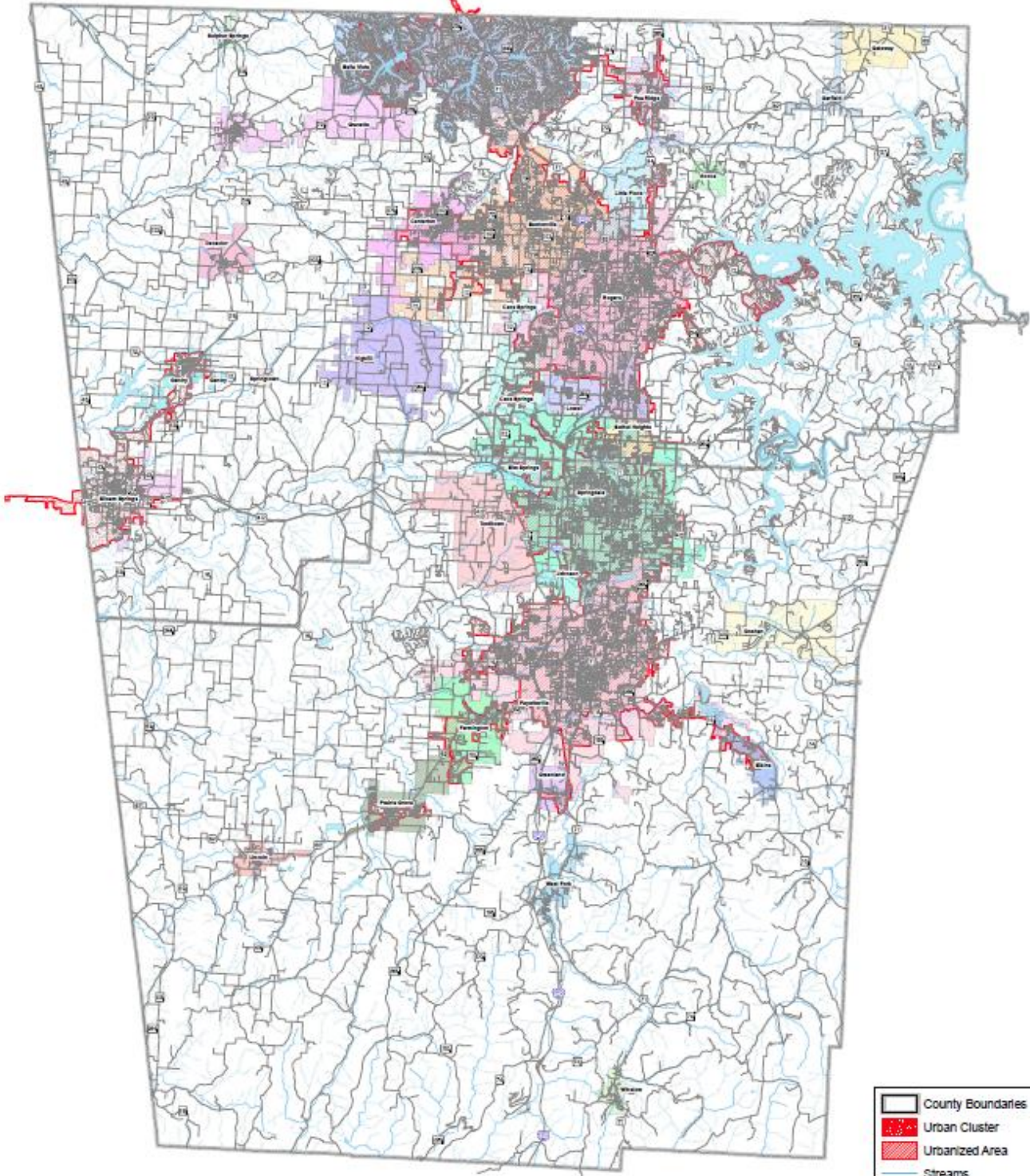
5. a. Enhance the City's erosion control program, including educating developers and the community regarding the positive aspects of open waterways to promote acceptance, and integrating effective compliance and enforcement components.
5. b. Provide adequate funding within the City's restraints for public maintenance of the stormwater drainage system, and ensure ongoing maintenance of private stormwater features through development agreements.
5. c. Increase educational outreach to schools to increase awareness of children regarding the need to keep litter and pollutants out of urban drainage ways.
5. d. Implement all six of the NPDES Minimum Control Measure BMPs. Implementing all of the provisions of the MS4 plan will ultimately result in improved water quality and quantity management, improved habitat and resource protection, and, ultimately, enhance urban waterways as desirable community amenities.

Bentonville's NPDES MS4 Plan

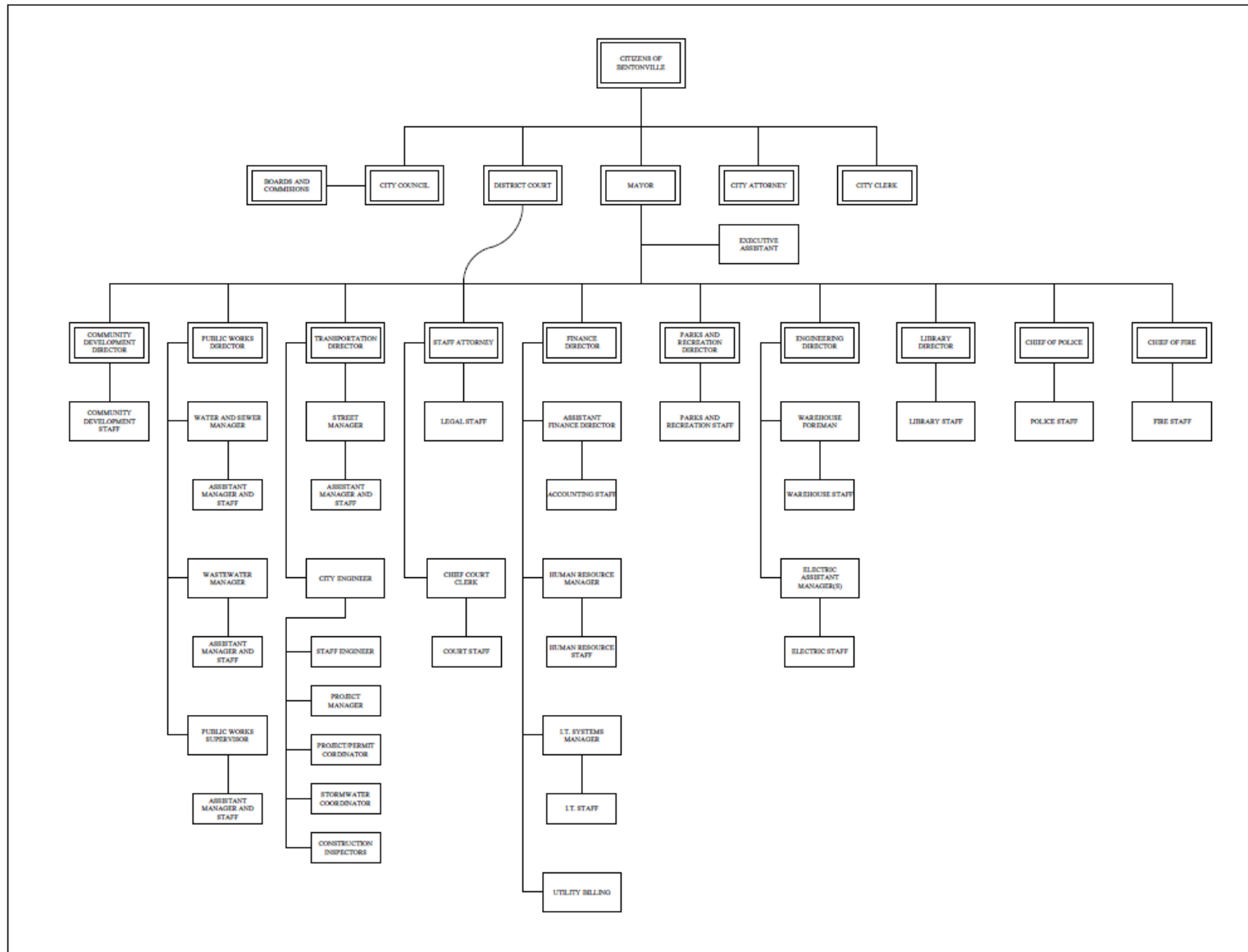
City Stormwater Management Program - Responsible Parties:

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. In response to the NPDES Phase II stormwater requirements, the City has developed a MS4 plan addressing each of the six required Minimum Control Measures, as specified in the Federal-NPDES Phase II rules. The City's stormwater management program is currently the responsibility of the Engineering Department. However, the implementation of the City's MS4 plan will extend throughout the City organization by implementing a Stormwater Pollution Prevention Team with representatives from Planning, Transportation, Public Works, Airport, Wastewater, Water/Sewer, Electric, Inventory, Library, Parks and Recreation, Building Permit and Inspection, Code Enforcement, Library, Fire Department and Police. Each Department's task would be recognizing stormwater issues of their facility, the field work they do, and documenting data for both positive and negative events that are stormwater related that previously went unnoted. The Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service has contracted with the City to be responsible for the development and implementation of the public education efforts even though the City recognizes their services are only partial coverage and the City is ultimately responsible for these control measures. Public Education and Involvement would also be encouraged with each department within their crew members, families and neighbors. Fliers, bulletins, and various stormwater media are intended to be made available online as well as message boards for comments from the general public.

Washington and Benton County MS4 2010 Urbanized Areas



CITY ORGANIZATION CHART



NPDES Phase II BMP Requirements:

Specific BMPs are proposed for each Minimum Control Measure, which are intended to support the reduction of discharges of pollutants in stormwater runoff to the maximum extent practicable (MEP) as required by the Federal-NPDES Phase II rules. In this section, a summary sheet is provided for each Minimum Control Measure, which includes a list of the selected BMPs, the rationale for their development and selection, and a summary of the measurable goals and implementation schedule. The summary sheet is followed by a fact sheet for each of the selected BMPs. Together, the summary sheets and the BMP fact sheets provide the following information in accordance with the Federal rules:

- A list of the responsible parties for the BMP implementation;
- A brief description of the BMP;
- A description of existing conditions
- The proposed MS4 plan activities and rationale;
- Measurable goals; and
- An implementation schedule

The BMP development/implementation schedule shows when certain activities will be completed on a fiscal year basis. The NPDES Phase II rules provide for a five-year continuation and implementation schedule starting from August 1, 2019 and running through July 31, 2024. And the City submitted its MS4 permit application materials before July 31, 2019. Therefore, the BMP implementation schedule lays out a five-year schedule starting with fiscal year 2019-2024.

A. Minimum Control Measure #1: Public Education and Outreach on Stormwater Impacts

Decision Process

The City of Bentonville participates in meetings of the NWA Stormwater Compliance Group to discuss stormwater pollution prevention and provide input on education activities. The city also has representation on the NWA Stormwater Education Steering committee (public membership comprised of diverse backgrounds/interests) which convenes at least once each year to review and evaluate program accomplishments and plan future stormwater educational topics. Both groups provide the localized input used to identify critical stormwater pollutants, education needs, target audiences, program methods, and public relations strategies.

Public Education and Outreach BMPs

Public Education (PE):

PE1 - Plan outreach and education efforts in conjunction with regional partners such as the stormwater education steering committee, the stormwater compliance group, local watershed organizations, and the Beaver Water District.

PE2 - Prepare and update educational documents and fliers.

PE3 – Approve and edit utility billing inserts; fact sheets, brochures and posters; press releases and PSAs; and stormwater displays. A stormwater web link will be maintained as a way of using multiple venues to reach the community.

PE4 – Educate the public on pollution prevention activities such as proper use and storage of fertilizers; proper use and storage of pesticides; pet waste management; disposal of household hazardous waste, managing yard debris and composting; water conservation; litter prevention; and many others as well provide training to reduce pollution to construction personnel.

Public Education/Outreach BMPs

Develop and distribute electronic and printed educational materials

Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics are identified, materials will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Examples may include fact sheets, videos, social media content, website content, newsletters, press releases, and PSAs.

Measureable Goals:

- Mechanism types and numbers of educational materials will be documented.
- Develop 5 educational materials across the permit term
- Attendance of MS4 Stormwater Compliance Group and Education Steering Committee meetings attendance will be documented.

Conduct stormwater education activities

Educational presentations will be given to illustrate stormwater dynamics, identify potential pollutants and pathways, describe techniques to reduce stormwater pollution and encourage voluntary BMP implementation according to the annual topic/audience emphases outlined in the following table.

Measureable Goal:

Stormwater education programs will be conducted and documented.

Rationale

In order to cover a wide range of audiences including government staff, the general public, and youth, multiple outreach genres and methods must be used (booths and materials at local festivals, newspaper articles, school programs, etc.) The contract with Regional Planning and the University of Arkansas Cooperative Extension Service allows for more educational activities to be pursued while providing a unified message for the residents of Northwest Arkansas. (See Appendix II for contract) There is also a great need to partner with various organizations to maximize the educational impact. Coordinating with other agencies like the Cities of Rogers, Springdale, Washington and Benton Counties, Illinois River Watershed Partnership and others, helps to keep government staff informed and educated on regional stormwater-related issues, such as existing materials and information available for common use (e.g., monitoring data and results of BMP evaluations), and issues such as Endangered Species Act (ESA) implications for City stormwater management activities. The Cooperative Extension Service also partners with these organizations and uses media outlets and Extension Service listings to promote volunteer opportunities for stream clean ups and water monitoring. Bentonville's strategy for developing and distributing the public education materials is to start with information such as the most typical sources of pollutants in stormwater runoff and the impacts associated with those pollutants, and making this information available as educational handouts, flyers, and mailings handled by the University of Arkansas Cooperative Extension Service. Future activities will include outreach presentations, advertisements, and workshops for the public, businesses, industry, and various other stakeholders, to educate them on impacts that the City's stormwater management program may have, and what they can do to improve stormwater quality. Different ethnic and economic ground will be engaged too. Outreach presentations, advertisements, and workshops can target development businesses to utilize new technology methods for stormwater runoff control and encourage Low Impact Development (LID) within development planning. Numerous topics can be covered by these outreach methods and will include recommendations for topics of interest via steering committees. Topic areas are coordinated to target populations that are defined by the different committees. These multiple partners, venues, and materials allow for much of the population of the MS4 areas to be reached. It can potentially affect commercial and industrial businesses, trade associations, environmental groups, homeowner associations, and educational organizations etc.

Bentonville's strategy for developing the stormwater section on the City web link is to create another venue for providing educational materials for public education and to start with information such as the most typical sources of pollutants in stormwater runoff and the impacts associated with those pollutants. Educational material would include frequently changing pollution "did you know" items, duplication of stormwater fliers used in other outreach areas and a comment/complaint form and e-mail address to the Stormwater Coordinator Website links to other formalized stormwater information websites are provided too.

Responsible Party

The Northwest Arkansas Regional Planning Commission and the University of Arkansas Cooperative Extension Service have contracted with the municipality to be responsible for the development and implementation of the public education efforts. A copy of that agreement is included in this plan.

Performance Standard:

Urban stormwater outreach/education programs will reach at least 50% of the urbanized area population.

Summary of Measurable Goals

University of Arkansas Cooperative Extension Service Staff may use public events, periodic neighborhood surveys, and consultation with community and citizen group leaders to solicit feedback on specific education/outreach efforts. Specific goals are outlined in the contract agreement with the municipality and will not be mentioned here to save space, but will be described in detail on the annual report.

**Minimum Control Measure #1:
5 Year Implementation Schedule**

BMP#	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
PE1	Utilize education steering committee to plan outreach/education methods, measurable goals, and evaluate program impacts. Coordinate with Cooperative Extension Service stormwater program and receive feedback on educational efforts and regional training needs.				
PE2	Prepare and update documents and fliers. Monitor and revise material as necessary.				
PE3	Use multiple outreach methods to reach the general public highlighting season-specific and media-driven stormwater management and pollution prevention topics				
PE4	<i>Topic Emphases:</i> Storm drain awareness/dumping	<i>Topic Emphasis:</i> Litter	<i>Topic Emphasis:</i> Sediment Control	<i>Topic Emphasis:</i> Yard Waste	<i>Topic Emphasis:</i> Automotive maintenance and Household Hazardous Waste
	<i>Target Audience:</i> General Public	<i>Target Audience:</i> General Public	<i>Target Audience:</i> Land development community	<i>Target Audience:</i> General public and green industry	<i>Target Audience:</i> General public and vehicle owners
	<i>Rationale:</i> Pollutants entering the storm drain	<i>Rationale:</i> Improper handling and disposal of litter can allow it to enter the storm drain system and degrade water quality	<i>Rationale:</i> Sediment leaving construction sites can enter the storm drain system and degrade water quality stormwater quality	<i>Rationale:</i> Improper yard waste disposal can clog drainage ways and excess fertilizer and pesticide applications can enter the storm drain system and degrade water quality	<i>Rationale:</i> Improper vehicle maintenance and HHW disposal can allow pollutants to enter the storm drain system and degrade water quality

Minimum Control Measure #2: Public Involvement and Participation

Decision Process

The City of Bentonville participates in meetings of the NWA Stormwater Compliance Group to discuss stormwater pollution prevention and provide input on education activities. The city also has representation on the Stormwater Education Steering committee (public membership comprised of diverse backgrounds/interests) which convenes at least once each year to review and evaluate program accomplishments and plan next steps. Both groups provide the localized input used to identify critical stormwater pollutants, education needs, target audiences, program methods, and public relations strategies.

Target Audience

The audience for public involvement programs and activities will be the general public and may include businesses, trade associations, environmental groups, homeowners, and civic organizations.

Public Involvement/Participation BMPs

Public Involvement (PI):

PI1 -- Public Involvement/Participation in Stormwater Management and Policy Development

PI2 – City Participation in Stormwater related activities

PI3 -- Public Engagement in Outreach and Education programs

Engage Residents in Public Participation/Involvement Activities

Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of educational materials, educational programs, and public involvement efforts. Residents will participate in public involvement activities. Examples may include stormwater compliance meetings, stormwater steering meetings, clean ups, etc...

Measureable Goals:

Public participation activities will be documented.

Rationale

The jurisdiction selected BMPs to address the Public Involvement/Participation Minimum Control Measure #2 and complement its public education efforts. PI1 details the public involvement and participation required under the NPDES program. The jurisdiction is working through the Northwest Arkansas Regional Planning Commission to contract with the University of Arkansas Cooperative Extension Service to continue a public involvement/participation program addressing this and 22 other MS4 jurisdictions. Components of this program will include organizing citizen participation in periodic creek cleanup efforts, storm drain stenciling, or assisting with educational or interpretive events etc. The City Library will be part of the Stormwater Pollution Prevention Team and can host some citizen events. Some components of Public Outreach/Involvement utilized are:

- Serving as a meeting location for public seminars.
- Serving as a meeting location for focus group input.
- Holding educational programs for adults/youth on local stormwater issues.

Responsible Parties

The jurisdiction has contracted with the Northwest Arkansas Regional Planning Commission and the University of Arkansas Cooperative Extension Service to develop and implement public involvement and participation efforts. A copy of the agreement is included in this plan. The Engineering Dept supports and provides feedback for these initiatives.

Performance Standard

At least 5 public participation and involvement activities will be coordinated over the permit term.

**Minimum Control Measure #2:
5 Year Implementation Schedule**

BMP#	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
PI1	Identify and advertise public involvement activities related to Stormwater Policies, regulations, implementation actions and BMPs. Participate in Northwest Arkansas Stormwater Compliance group. Post SWMP and annual report on website.				
PI2	Participate in professional organizations, conferences, and in local watershed and environmental events. Communicate and provide technical assistance to other MS4 programs				
PI3	<i>Administer Public Involvement activities</i> Support and monitor Cooperative Extension Service stormwater programs	<i>Administer Public Involvement activities</i> Support and monitor Cooperative Extension Service	<i>Administer Public Involvement activities</i> Support and monitor Cooperative Extension Service stormwater programs	<i>Administer Public Involvement activities</i> Support and monitor Cooperative Extension Service stormwater programs	<i>Administer Public Involvement activities</i> Support and monitor Cooperative Extension Service stormwater programs

Minimum Control Measure #3: Illicit Discharges Detection and Elimination

Decision Process

Reported illicit discharges are investigated and evaluated according to local codes. Nearby stormwater system locations are identified and procedures are followed to mitigate impairments to water resources. Information is given to public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. (IDDE1, IDDE3, IDDE5, IDDE6). The storm sewer map is updated regularly based on asbuilt data. Dry weather screening identifies non-stormwater flows. This information is used to identify trends and prevent future releases.

IDDE BMPs

Illicit Discharge Detection and Elimination (IDDE):

IDDE1 -- Illicit Discharges Reporting and Tracking System program

IDDE2 -- Outfall Inventory, Mapping and database

IDDE3 -- Illicit Discharges Response and Enforcement

IDDE4 -- Water Quality Monitoring for Illicit Discharges

IDDE5 -- Citywide Illicit Discharge Detection and Elimination response

IDDE6 -- Non-Stormwater Discharge Assessment

IDDE7 -- Assessment of Occasional Incidental Non-stormwater Discharges

Rationale

The City selected the above seven BMPs to address the permit requirements. *BMPs IDDE1, IDDE3, and IDDE 5* provide for and describe the City's processes that respond to and document complaints regarding water quality, including illicit discharges. The Stormwater Coordinator records concerns and geolocates the data. Follow-up investigations ensue. Responsible parties are contacted regarding corrective actions. The Stormwater Coordinator maintains electronic log and IDDE concern resolution is documented.

IDDE1, reporting and monitoring, has several methods of documenting presumed illicit spills, sightings and discharges. City personnel, while doing their daily jobs, will report potential illicit problem areas to the Stormwater Program, handle through their department, or report to other departments with assessment, enforcement and or cleanup capabilities. Public reporting's are received too. The problem area will be investigated soon or immediately depending on the situation. Minor infractions will be brought to the owner's attention, followed up on, and an investigation report to the Illicit Discharge files complete with pictures and the investigation results. Major infractions will be brought to the owner's attention, followed up on, an investigation report filed, and enforcement protocol followed as per the ordinance, "Stormwater Pollution Prevention and Erosion Control Standards". Other larger incidents with water bodies, fish kills with unknown circumstances will be reported to State Fish and Wildlife and or the ADEQ for their expertise and water quality measurement capabilities. These BMPs include phone numbers (and public knowledge of phone numbers of City Hall, Police Dispatch, and several other City numbers) for tips or complaints and protocols for the most efficient and effective follow-up actions in response to calls. Additionally, the recently developed City Stormwater Website (PI2 - Control Measure #1) will add another avenue for discharge complaints and sightings for public reporting. The incidents are tracked electronically.

BMP IDDE2 Outfall Inventory, Mapping and Database are a project the City has begun, and will be maintained during the permit period. The storm sewer map includes inlets, pipes, concrete ditches, and public and private stormwater management features. The map is updated as needed coordinating both dry weather screening and locating previously unmarked outfall locations by observing stream beds in search of IDDEs, GPS-ing unmarked outfall locations and recording outfall information for the outfall. New development designs are created on Civil Auto-Cad using survey crews for the platted area. Approved construction

drawings on Civil Auto-Cad showing streets, inlets and development tie-ins to existing storm drains or outfalls can be transferred to the storm sewer map software program. The outfall map shows outfall points that discharge to Waters of the State. It is superimposed on city limit boundaries and named streams. Inspection data collected in the field is entered into database. (IDDE2).

The City's program to prohibit and enforce elimination of illicit discharges is described under **BMP IDDE3**, regulatory authority for implementation and enforcement of the City's IDDE program and is provided in two ordinances, the Stormwater Pollution Prevention and Erosion Control Standards Ordinance and the Nuisance Abatement. Additionally, to address requirements **1** and **3** above, as a part of **BMP IDDE3**, findings of illicit discharges would be brought to the owner or responsible person of the site to correct the problems or face additional City regulatory and enforcement criteria.

BMP IDDE4 includes the monitoring program conducted by the City to identify and track the sources of illicit discharges, which will support compliance. This BMP will recognize that Town Branch Creek is on the 303(d) list and will work toward identifying potential sources of the stream impairment. The target pollution is total phosphorus. Requirements to inform the public regarding the hazards of illicit discharges is implemented through several of the public education BMPs such as informational documents other media. Other streams in the city will be walked and monitored. Dry weather screening, located by maintenance activities, citizens reporting or other means shall be tracked to their source if possible, sampled if the substance is not obvious and assessed for elimination requirements. Tracking may include associating the type of illicit discharge to certain facilities upstream. Based on the appropriate number of known facts, enforcement shall follow as per Stormwater Pollution Prevention and Erosion Control Standards ordinance requirements. Citizen hotline requirements are covered by public knowledge of phone numbers of City Hall, Police Dispatch, and several other City numbers. Complaints and tips phoned in regarding an incident are forwarded to the appropriate City personnel that handle the particular type situation. And as mentioned above, illicit discharges can be reported through the Bentonville Stormwater web link.

MS4 employees, businesses, industries and general public will be informed and educated on the hazards associated with illicit discharges and improper disposal of wastes in conjunction with **BMPs PE1** and **PE2** and requirement 5 as needed per reporting. Activities conducted under **BMP IDDE5** to detect and eliminate non stormwater discharges, including illegal dumping shall be provided with the implementation of a Stormwater Pollution Prevention Team that will extend throughout the City organization with representatives from Engineering, Airport, Wastewater, Water/Sewer, Planning, Public Works, Parks and Recreation, Electric, Inventory, Building Permit and Inspections/Code Enforcement, Transportation, Library, Fire Department and Police. Each Department's task would be education on recognizing illicit discharge issues of their facility, the field work they do, alerting other departments, and documenting data for both positive and negative events that is illicit discharge related that previously went unnoted. Negative findings will be enforced by various Departments of City Enforcement and the City Code of Ordinances.

BMP IDDE6 and requirements 6 and 7, addressing non-stormwater discharges, will require the City to assess illicit discharges, and determine if they adversely impact the stormwater system. If they are found to cause an adverse impact, appropriate management practices or regulations will be used. Commercial and industrial sectors (manufacturing facilities, mechanic shops, junk car sites and restaurants) would also be prioritized recognizing the improperly handled waste products from these facilities have the potential of illicit discharges. Areas that have a concentration of industry may be the first to be investigated or sites that have a significant opportunity for stormwater pollutant releases. Another proposal would be to electronically overlay a copy of the sanitary sewer system map with the storm sewer system map. This will show areas within the City limits with housing or commercial businesses that have no sanitary system and likely are on septic systems. These areas would be prioritized first for site investigations and dry stream observations for potential illicit discharges. Each system could be investigated would be logged by GPS and with a condition report, and scheduled for inspection the following year.

BMP IDDE7 -- An assessment of occasional incidental non-stormwater discharges that are exempt will be conducted. Activities may include occasional charity car washes.

Responsible Parties

Engineering - Coordinate Management and Implementation of the IDDE Control Measure, respond and investigate citizen complaints and tips, assess and enforce as necessary.

Transportation - Recognizes illicit discharges and illegal dumping along streets, inlets, sewers, streams and water bodies. Responds to assessment and cleanup.

Building Permitting and Inspection - Recognizes illicit discharges and trash at residential building sites and responds to assessment and enforcement as necessary.

Code Enforcement - Responsible for enforcement of primary codes with regulatory requirements.

Police - Respond to accidental illicit discharges (car accidents or other spills on or near public streets and public places). Reports to necessary assessment, enforcement and cleanup departments.

Fire - Respond to accidental illicit discharges (car accidents or other spills on or near public streets and places)

Performance Standard

Tabulate incident responses/completions. Document the prevention and reduction of releases by recording incident resolutions.

Summary of Measurable Goals

The measurable goals of the illicit discharges program will include:

- Establish procedures to track and document the type of calls received and the actions taken in response.
- Review of outfall maps. Coordinate with GIS Dept and others to update.
- City wide detection of illicit discharges that are encountered and document enforcement and elimination procedures
- Conduct and document monitoring of significant outfalls and document illicit discharge detection actions taken as warranted.
- All required outfalls will be dry-weather screened over the term of permit coverage.
- Educate public to explain illicit discharge detection, clean up response, and management plans to eliminate future discharges
- Track commercial/industrial uses assessed for possible illicit discharges and document resolution of illicit discharges identified
- Complete an assessment of occasional incidental non-stormwater discharges along with implementing any additional local controls where identified as needed.

Minimum Control Measure #3

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
IDDE1	Document hot line calls received on electronic systems	Evaluate types of discharges	Monitor and revise as necessary. Update the Stormwater Web Link as warranted.	Implement program improvements as warranted	Monitor and revise as necessary
IDDE2	Stormwater drainage and outfall mapping data. Add new inlets & outfalls to previously developed maps.	Update maps as necessary	Collect the field data and upload onto city GIS. Update accordingly.	Monitor and maintain existing data sources	Monitor and maintain existing data sources
IDDE3	Implement protocols for responding to complaints and maintain complaint log. Track the illicit discharges that are encountered and document enforcement and elimination procedures that are conducted.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.
IDDE4	Conduct dry inspections of existing outfalls. Identify and inspect new outfalls as they are constructed. Document illicit discharge detection actions taken as warranted.	Conduct dry inspections of existing outfalls. Identify and inspect new outfalls as they are constructed or found. Document illicit discharge detection actions taken as warranted. Observe local stream networks.	Conduct dry inspections of existing outfalls. Identify and inspect new outfalls as they are constructed or found. Document illicit discharge detection actions taken as warranted. Identify sites with industrial stormwater permits or without sanitary sewer connections	Conduct dry inspections of existing outfalls. Identify and inspect new outfalls as they are constructed or found. Document illicit discharge detection actions taken as warranted. Observe local stream networks conditions.	Document illicit discharges identified and eliminated. Conduct dry inspections of existing outfalls. Identify and inspect new outfalls as they are constructed or found. Document illicit discharge detection actions taken as warranted.

IDDE5	Coordinate protocols for finding and responding to illicit discharges, including dumping and spills. Coordinate training, implementation, and enforcement with public and other departments.	Review protocols, reports, etc. to improve the reporting and detecting processes. Educate public to explain illicit discharge detection, clean up response, and management plans to eliminate future discharge per case.	Use outfall inspection data. Review protocols, reports, etc. to improve the reporting and detecting processes.	Review protocols, reports, etc. to improve the reporting and detecting processes.	Review protocols, reports, etc. to improve the reporting and detecting processes.
IDDE6	Create & implement Non-Stormwater Discharge Assessment program Address categories of non-storm water discharges such as pool dewatering, crawl space pumping, lawn drainage etc.	Coordinate with illicit discharge electronic reporting system	Monitor and revise as necessary	Monitor and revise as necessary	Monitor and revise as necessary
IDDE7	Complete an assessment of non-stormwater discharges along with implementing any additional local controls where identified as needed	Document identified non-stormwater discharges that are exempt	Maintain list of non-stormwater discharges that are exempt	Maintain list of non-stormwater discharges that are exempt	Maintain list of non-stormwater discharges that are exempt

Minimum Control Measure #4: Construction Site Stormwater Runoff Control

Decision Process

City Council approval of the Stormwater Coordinator position in June 2013. Logs of new and former land disturbing projects have been maintained. If the Stormwater Coordinator receives concerns, they are logged. Follow-up investigation ensues. The responsible party is contacted to complete corrective actions. The Stormwater Coordinator maintains the log to confirm construction site issues resolution occurs. Sites near sensitive waterways, surface waters, wetlands, and in floodplains will be reviewed with special considerations. The electronic record keeping is utilized for annual MS4 reporting purposes.

Construction Site Stormwater Runoff Control BMPs

Construction Site Waste (CSW):

- CSW1** – Erosion and Sediment Control Regulations
- CSW2** – City Staff Pollution Prevention Team Training
- CSW3** – Land Drainage Program (Drainage Criteria Manual)
- CSW4** – Construction Site Stormwater Plan Review
- CSW5** - Construction Site Concern Response
- CSW6** – Inspections and Enforcement

Rationale

The City selected the above BMPs to address each component of the construction site runoff control requirements. **BMP CSW1** regulatory authority for implementation and enforcement of the City's erosion and sediment control program is provided in the Stormwater Pollution Prevention and Erosion Control Standards ordinance. **CSW1** was selected to improve linkage and cross reference between the ordinances and create better detail to ensure new development and re-development sites have stormwater issues covered. Sites over one acre in size are believed to have the potential to produce pollution if not regulated. Codes provide a framework for oversight of construction that requires erosion and sediment control measures during construction of new development or redevelopment of sites of practically any size.

BMP CSW2 provides for training of City staff to recognize and correct erosion problems on construction sites and to enforce the provisions of the City's adopted ordinances. The implementation of the City's MS4 plan will extend throughout the City organization by implementing a Stormwater Pollution Prevention Team with representatives from Planning, Public Works, Parks and Recreation, Building Permit and Inspection, Code Enforcement, Fire Department and Police. Each Department's task would be recognizing stormwater issues of the City, whether passing by construction sites or other pollution events that is stormwater related that previously went unnoted. This is a critical component of the stormwater management program, and this is being addressed through the development of specific, dedicated staff for permitting, inspections, enforcement and the implementation of the City Pollution Prevention Team. The City's stormwater management program is the responsibility of the Engineering Department. However, Public Education and Involvement would be encouraged with each department within their crew members, families and neighbors. Fliers, bulletins, and various stormwater media are created for comments from the general public. Measurement of this goal will be difficult however it is believed that in later years the BMP will pay environmental benefits.

BMP CSW3 and CSW4 provides for specific requirements for construction site developers and is addressed in the City's Engineering Drainage Criteria Manual. During the Site Plan Review, Technical Plat Review and SWPPP review processes, all check lists and specific items have been finalized on the construction documents for all new developments of Subdivisions and Large Scale Developments, to ensure drainage

criteria and pollution prevention has been accurately planned. Separate Drainage Reports are required on each submittal. PreConstruction Meetings are held for each proposed project.

BMP CSW4 The SWPPP review process follows regulations and guidelines developed by the ADEQ and EPA. Each SWPPP narrative and accompanying erosion and sedimentation control plan is reviewed for completeness, accuracy and proper signatories. Projects are not allowed to have a PreConstruction Meeting until proper permitting is obtained. Qualified personnel are to complete self inspections and maintain proper documentation per project. The City of Bentonville monitors SWPPP implementation.

BMP CSW5 Public complaints of construction sites involving mud tracking, litter and runoff etc. are logged by the Stormwater program. Research is conducted before site visit or public advisement. Contact information is posted on the city website. Construction site issues are investigated and corrective actions are given as needed. Resolutions are documented for recordkeeping purposes.

BMP CSW6 provides for the construction site review monitoring frequency based on the site sensitivity such as location to streams, drainage to neighboring properties, size of the site and contractor construction methods and behavior. Various city staff drive-by/drive through inspections look for flagrant violations and reported. More thorough stormwater inspections are documented once per month on sites greater than 1A. The stormwater ordinance requires the development of erosion and sediment control plans. The stormwater ordinance is being reviewed and will be updated to include issues provided by the new ARR 40000 as well as adopting usage of new technology. Additionally, the nuisance prohibitions section of the Code of Ordinances provides authority to regulate street cleanliness to prevent or control wastes that can adversely impact water quality. Taken together, these adopted Codes and programs fulfill Requirements 1 through 4 described above. Enforcement is carried out by Inspectors and certain circumstances can be handled by Code Enforcement as the Ordinances require.

Responsible Parties

The City maintains the City Code of Ordinances related to construction and coordinates the Site Plan and Drainage Review process. The Engineering Department staff is responsible for implementation and inspection of approved land alteration and development projects for overall development criteria as well as erosion and sediment control and construction site runoff controls. Building Inspection and Permits Department will aid in monitoring control of new housing sites. Enforcement of these areas of the City's Codes is conducted in coordination with the Office of the City Attorney if necessary.

- Engineering (Coordinate Management and Implementation and provide site inspections)
 - Eng. Dept. Stormwater Coordinator position responsible for Stormwater Management Program
- Building Permitting and Inspection (provide site inspections for residential housing sites)
- Code Enforcement

Summary of Measurable Goals

Staff reviews the Municipal Code and Development Code provisions related to erosion control and construction site runoff during the permit period and revises as necessary. The measurement of success of the program will be based on monitoring of compliance and avoidance of impacts to water quality from land alteration and construction. The effects of land alteration and construction will be minimized with well positioned field temporary BMPs, systematic monitoring and maintenance and continued education of site construction personnel as well as City employees. Trends can be determined per data collection.

Performance Standard

Tabulate of site plan reviews, sites, total inspections, complaints, and enforcements. Data is collected on the number of SWPPP trained contractors, owners, and engineers in Pre-construction Meetings.

Minimum Control Measure #4

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
CSW1	Review existing Municipal Code, particularly the Stormwater Pollution Prevention and Erosion Control Standards ordinance, and Development Code for erosion and construction site runoff control effectiveness	Review, modify and enforce provisions as necessary	Review, modify and enforce provisions as necessary	Review, modify and enforce provisions as necessary	Review, modify and enforce provisions as necessary
CSW2	Conduct staff training on an ongoing basis; update as needed.	Stormwater Coordinator to go to field with inspectors periodically to evaluate consistency in inspections	Evaluate the effectiveness of the training and update/improve as warranted. Encourage construction inspector certifications in erosion and sediment control or MS4 stormwater. Keep inspectors informed of new policies, regulations, and procedures.		
CSW3	Review Stormwater Management and Drainage Manual / Land Drainage and Alteration program on an ongoing basis. Review Drainage Reports on every project.	Review, modify and enforce provisions as necessary. Conduct land drainage and alteration program training as-needed.	Review, modify and enforce provisions as necessary. Track land drainage and alteration compliance and impacts to water quality.	Review, modify and enforce provisions as necessary. Evaluate Municipal Code and develop amendments as needed to achieve compliance.	Review, modify and enforce provisions as necessary. Complete program review and assessment.
CSW4	Utilize construction Site Stormwater Plan Review Checklist for all projects Stormwater trained staff attend Preconstruction meetings and administer regional SWPPP educational training video	Update plan review checklist per regulatory changes.	Review and modify as necessary. Track and document attendees for educational training renewal every two years.	Review and modify as necessary	Review and modify as necessary
CSW5	Develop Standard Operating Procedure (SOP) for response to reported construction and post construction stormwater concerns. Maintain complaint log for tracking and document follow-up.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance.
CSW6	Conduct monthly erosion and sediment control stormwater inspections	Revise inspection form as needed	Implement existing Code authority on an ongoing basis	Review and amend the Code as appropriate	Review and amend the Code as appropriate.

Minimum Control Measure #5: Post-Construction Stormwater Management for New Development and Redevelopment

Decision Process

The city owns and maintains about ten percent of the stormwater basins. Easements are used for access and maintenance. The Transportation-Street Department assists in maintenance for cases of severe erosion or blockages of flow which impair safety. Post-Construction BMPs are evaluated upon the receipt of reported concerns. The information is logged. If the owner does not respond, the case is referred to Code Enforcement. The city can complete the corrective action and place a lien on the subject property(ies) for the cost of the remedial work.

Post-Construction Management in New Development and Redevelopment BMPs:

DS1 -- City Code of Ordinances, Engineering Drainage Criteria Manual

DS2 -- Post Construction Stormwater System Maintenance Inspections and Compliance

DS3 — Assess construction of Post Construction stormwater features per design as related to Drainage Master Plan and Capital Improvement Program (CIP)

DS4 ---Post Construction stormwater feature functionality; Low Impact Development (LID)

Rationale

The City selected the above BMPs to meet the post-construction Minimum Control Measure requirements. The City Code of Ordinances requires that new developments in the post construction phase to incorporate stormwater management BMPs to reduce the impacts associated with stormwater runoff generated at the site.

BMP DS1 provides for maintenance and revisions of the selected Code of Ordinances requirements and the more specific design requirements included in the Engineering Drainage Criteria Manual, such that pollutants from stormwater runoff from new development are reduced to the maximum extent practicable, in partial compliance with the requirements of this Minimum Control Measure. Additionally **BMP DS1** was selected to improve linkage and cross reference between the Ordinances and create better detail to ensure all areas disturbed by construction or other means have been properly stabilized.

The City Stormwater Management and Drainage Manual requires no increase in peak flow discharge from the one hundred year precipitation event down to and including the two year event. Drainage Reports are evaluated during the initial Engineering / Planning review for 100% of all large scale construction activities by the Stormwater Management and Drainage Manual. If the calculations do not match the drainage manual criteria, the designer is required to reevaluate. These evaluations prevent impacts from flooding and attenuate downstream erosion. The Floodplain Management Program directs structures to be raised to avoid impacts from stormwater runoff from riverine sources.

BMP DS2 provides for the development of a long-term inspection and enforcement program, Even though there are ordinances in place, it is recognized that additional detail to ordinance linkage is still required to be amended in the ordinances to ensure proper inspection and enforcement is in place and compliance is at the Maximum Extent Practical. This will be case by case review after post construction to determine if the compliance requirement is adequately detailed within the Ordinances. This will be an ongoing process during the permit period. When a stormwater feature is recognized to be in need of maintenance or repair, the owner will be contacted to address. Since 2005 Ord 2005-101 Establishing Regulations For Ownership And Maintenance Of Detention And Retention Ponds, stormwater basins are privately owned and maintained.

BMP DS3 addresses opportunities for implementing water quality improvement projects associated with retrofits to and expansion of the public stormwater drainage system. This includes continued development

and re-development, street widening projects with curb and gutter and storm sewer installation or replacement, stormwater retention, and provides improvements to pre-existing and post development methods. The City maintains over 50 detention - retention ponds in place based on runoff criteria that is required by the Drainage Criteria Manual while the rest are privately owned. These function as flood control measures as well as stormwater pollution traps to some degree. This BMP will support fulfillment of requirements 1 and 2 by providing publicly-funded and managed water quality improvement infrastructure to supplement reduction of pollutants associated with increased stormwater runoff from a growing urban environment. Several city drainage projects have been completed and others are underway. Priority should be given to places subject to direct surface water pollution or areas with active drainage issues.

The Stormwater Coordinator and Engineering Dept. attend “Final Construction Inspections” of all large scale developments; the stormwater drainage system is viewed to see if it is installed per the approved plans and drainage report. Then, the completed project is verified with the required as-built submittal. The as-builts are used to create a post-construction stormwater feature database. Once a data set is collected, the stormwater features can be monitored for functionality. Operation & Maintenance inspection criteria maintenance manuals for stormwater devices are requested by Final construction site inspection.

BMP DS4 addresses opportunities for installation and design of stormwater basins and other low impact design features. This BMP lends to educational outreach to homeowners, neighborhood POA’s, developers and Engineering Design groups regarding stormwater feature maintenance. The city plans to evaluate existing codes and planning procedures to remove impediments to low impact development and green infrastructure.

Responsible Parties

- Engineering (Coordinate Management and Implementation) - Stormwater Coordinator
- Transportation
- Building Permitting and Inspection and Code Enforcement

Summary of Measurable Goals

The regulatory framework for control of post-construction stormwater runoff is contained in the Stormwater Pollution Prevention and Erosion Control Standards... ordinance. This framework will seek out refinements and will be expanded as needed to improve the City’s capability to achieve reductions in stormwater pollution from new developments through periodic evaluations and updates to the Codes. Measurable goals will include to:

1. Monitor Technical Plat Review and Land Division approvals for adequacy of stormwater management to ensure that compliance for post construction is being met even though the regulatory mechanism in place. Review all new stormwater drainage infrastructures on new developments for incorporation of stormwater quality improvement facilities in place at the final construction site inspection. Disapprove projects until these projects have met all the requirements. The decreasing number of project disapprovals during the year would partially reflect measures of success.
2. Monitor compliance achieved in public and private maintenance of stormwater management systems required in the development approval process.
3. Monitor Stormwater Pollution Prevention Plans for adequacy of stormwater management during construction; monitor all inspection practices and provide additional training as needed to the City departments. Conduct a review/survey of new development to ascertain what was constructed in year one is functioning properly without evidence of pollution criteria existing in year 2 and beyond.
4. Include efforts to identify and remove impediments for post construction BMP installation and maintenance. Include recommendations for LID and green infrastructure at Technical Plat Review and Land Division approvals. A relatively large impediment for NWA is the extremely tight clay and rock sub soil (.05"/ hr. infiltration rate) making rain gardens and bio-swales more expensive and less effective than soils with higher to much higher infiltration rates.

Performance Standard

Tabulate post construction BMPs concerns addressed. Provide Drainage Report review data for the annual report. View post-construction BMPs at the new construction Final inspection and discuss long term maintenance plans with owner.

Minimum Control Measure # 5

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
DS1	Review Codes and propose amendments as appropriate. Seek City Council approval & adoption of amendments. Review Engineering Drainage Criteria Standards and BMP Manual and amend as needed to reflect Best Management Practices.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.
DS2	Review large scale development Drainage Reports per applicable ordinances	Review large scale development Drainage Reports per applicable ordinances	Review large scale development Drainage Reports per applicable ordinances	Review large scale development Drainage Reports per applicable ordinances	Review large scale development Drainage Reports per applicable ordinances
DS3	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time. Conduct “Final Inspections” of all large scale developments. Determine if stormwater drainage system is installed per the approved plans.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time. Verify completed projects with as-built submittals.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time. Consider data in for future Post- Construction ordinance language.
DS4	Monitor reported issues with Post Construction stormwater features	Monitor reported issues with Post Construction stormwater features. Review LID and green infrastructure impediments.	Monitor reported issues with Post Construction stormwater features	Monitor reported issues with Post Construction stormwater features. Review LID and green infrastructure impediments.	Monitor and revise as necessary

Minimum Control Measure #6: Pollution Prevention in Municipal Operations

Decision Process

The items discussed in this section pertain to preventing pollutants entering the storm drain that are specific to City of Bentonville facilities. Each Department will have a responsible party trained to monitor, detect, and implement pollution prevention techniques. The Stormwater Coordinator will evaluate the strengths and weaknesses of the facility inspection program and direct training accordingly. The city only has one ADEQ Industrial stormwater permit that ultimately discharges into the city MS4; it is the WWTP and Compost facility.

Municipal Operations Facilities of the City

The following facilities are owned and operated by the City. These facilities conduct activities described in 40CFR122.26 (b) (14) and are not required to obtain an Industrial Stormwater General Permit.

Airport

Parks and Recreation and Public Works:

- Moberly Lane Maintenance Facility
- Parks and Recreation Park system

Fire Stations

- Stations 1-7

Police Station

Waste Water Treatment Plant including Compost Facility

Municipal Building

- ***Water/Sewer Department***
- ***Electric Department***
- ***Inventory Department***
- ***Transportation/Street***
- ***Planning***
- ***City Hall/Utility Billing Dept***

Library

Pollution Prevention / Good Housekeeping for Municipal Operations BMPs

Operation and Maintenance (OM):

OM1 -- Operation and maintenance program that includes a training component

OM2 -- Pollution Prevention Plan Manuals for City Operations (PPP)

OM3 -- Street Sweeping for Stormwater Pollution Control

OM4 -- Channel Assessment

Rationale

The City selected the above four BMPs to address Minimum Control Measure #6 - Pollution Prevention in Municipal Operations.

BMP OM1 and **BMP OM2** provides a training goal to both train the departments as a group with visual aids and also in their respective crew assignments to tie a stormwater component to their everyday work. As part of the contract with Northwest Arkansas Regional Planning and the University of Arkansas Cooperative

Extension Service, Cooperative Extension service employees will provide training at least once a year to MS4s. The training will use materials that include information on construction sites, parks & open space maintenance, and fleet & building maintenance. Jurisdictional-specific ordinances, policies, and mandates will also be addressed during these trainings and specific system maintenance as departmentally appropriate. Training will stress how the employees are the “eyes and ears” of the city and that they should learn to recognize signs of illicit discharge and how to properly report these instances. Recommendations from the various NWA City Coordinators are also addressed during the regional stormwater compliance group monthly meetings and these recommendations help to shape the educational outreach messages.

BMP OM2 includes

1. Implementation of a Pollution Prevention Plan Manual for routine maintenance activities associated with City Departments.
2. Continue scheduled evaluations of City practices, such as those associated with Fire and Police, and develop PPP manuals or procedures as appropriate.

A City PPP Manual for routine maintenance activities is in development with the intent to meet requirements, along with any other regulatory programs. Site specific stormwater quality management practices will be included in the PPP. It is expected that the Police and Fire and Life Safety Departments will have the remaining operational activities, such as vehicle washing and incident clean-up, warranting this evaluation and will also be included in BMP OM3. Any revisions that are necessary will be made by the Department staff and employees in collaboration with the Stormwater Coordinator for full implementation. Any ongoing and additional training will be provided by the U of A. extension Service.

BMP OM3 addresses street sweeping as a pollution control practice, and includes an assessment and evaluation of existing practices and implementing improved practices as appropriate. Street sweeping is a program which has been provided by the City for many years. While this program originated out of the desire to maintain streets for aesthetic and safety purposes, it now is also recognized as an avenue to remove debris and pollution from entering the stormwater drainage system. Two mechanized sweeper service established routes throughout the city with multiple sweeps per year. This practice collects trash, leaves, dirt, and other contaminants from roadsides and gutters, which otherwise flows into the stormwater drainage system, carrying contaminants and toxins. These contaminants include sediment, petroleum, organic and inorganic wastes, and toxic metals from paint, tires, and brake dust. Sweepers are also used to respond to certain types of spill clean-up work at accident or roadway spill scenes, where the material is able to be safely swept up with this type of equipment. Quantities of street sweeping collections will be collected.

BMP OM4 provides a continued assessment of open channel conditions to support stormwater management planning efforts. This effort will be in conjunction with stormwater sewer map and dry weather screening activities and data base. This assessment will assist the City in prioritizing capital improvements and maintenance activities that improve open channel stormwater quality functions throughout the city. Each of the BMPs aims to prevent or reduce pollutants contained in urban stormwater runoff from the City stormwater system and municipal operations. The channel assessment for all surface waterways inside the city limits would gather the following information citywide:

- Erosion-prone areas
- Stream bed material
- Reach profile
- Presence of invasive plant species (in-stream and riparian zone)
- Presence of native plants for seed stock
- In-stream structures or constrictions
- General land use by reach

Active Stormwater Coordinator and trained Certified Floodplain Managers assist in floodplain management concerns. They will disseminate public information, maintain mapping, interpret regulations per site, pursue flood damage reduction, and implement flood preparedness.

Responsible Departments

- Engineering (Coordinate Management and Implementation of stormwater practices) by Stormwater Coordinator
- Public Works
- Transportation
- Parks and Recreation
- Police
- Fire
- Electric
- Inventory
- Airport
- Wastewater
- Water/Sewer
- Library
- University of Arkansas Cooperative Extension

Summary of Measurable Goals

The City will perform a review and update of Public Works and Parks and Recreation maintenance practices, and will result in a PPP Manual for routine maintenance practices. Specific activities in the manual for each site will be tracked to evaluate their effectiveness at minimizing negative impacts on stormwater quality.

The evaluation of other City operations and development of appropriate PPP manuals will be developed and implemented. Updates to the PPP will be completed as necessary during the permit period.

The review will focus on feedback from staff and employees as to what is working and is not working.

The Channel Assessment will be developed and implemented however new drainage data will be collected and maintained on a regular basis through the permit period.

Performance Standard

Keep quarterly MS4 Facility site self-inspection reports by Department electronically by year. File quarterly MS4 Facility stormwater site inspection reports by year.

Minimum Control Measure #6

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OM1	Conduct annual training for employees	Conduct training as necessary for employees	Conduct annual training for employees	Conduct training as necessary for employees	Conduct annual training for employees
OM2	Monitor the implementation of the PPP Manual for routine maintenance activities at all operation facilities needing them	Monitor the implementation of the PPP Manual for routine maintenance activities at all operation facilities needing them	Monitor the implementation of the PPP Manual for routine maintenance activities at all operation facilities needing them	Monitor the implementation of the PPP Manual for routine maintenance activities at all operation facilities needing them	Update as needed
OM3	Maintain street sweeping program. Monitor Waste disposal, road salt, and pesticide/herbicide/fertilizer usage		Assess and evaluate street sweeping program and other programs; recommend changes or improvements as appropriate.		Implement and evaluate changes.
OM4	Assess open channel conditions to evaluate future flooding conditions in relation to city master drainage plan		Assess open channel conditions to evaluate future flooding conditions in relation to city master drainage plan		Assess open channel conditions to evaluate future flooding conditions in relation to city master drainage plan

Discharges to Impaired Waters with and without approved TMDLs, as well as waters that are attaining Water Quality Standards, but have an approved TMDL and Monitoring

Decision Process

Town Branch is a headwater, losing stream with a watershed of only 6.9 square miles at its mouth (3 square miles at the ARK56 sampling location). Water from Town Branch flows into McKissic Creek, and then into Little Sugar Creek, which flows into the Elk River in Missouri. The Town Branch watershed is in the Ozark Highlands ecoregion and is approximately 44% urban, 41% forest, and 14% pasture/grass. Most of the watershed is within the Bentonville city limits. Approximately two-thirds of the Town Branch watershed is within an “urbanized area” based on population density. This stream has a TMDL for phosphorus. Reference document “TMDL for Total Phosphorus for Town Branch Feb 2014 (REACH 11070208-901)”. Sampling procedures and assessments provide insight for potential pollutant loading.

Discharges Directly to Water Quality Impaired Water Bodies with an Approved TMDL

BMPs:

N1 – Nutrient Sources and Reduction

N2 – Nutrient Public Education at Preconstruction Meetings

N3 – Nutrient Reduction by Municipal Operations

M1 - Monitoring

Rationale

The City selected the above BMPs to address Phosphorus as a water quality nutrient of concern per permit requirements. *BMPs N1, N2, N3 and M1* provide for and describe the City’s processes that respond to and document the water quality nutrient of concern. It looks at construction activity, municipal facilities, and urbanization. Part of the watershed drains Benton County agricultural land outside of the MS4. There are no municipal or private golf courses within this watershed. A city wastewater treatment plant discharge point is into Town Branch. A source list will be prepared, education will ensue, and phosphorus reduction goals will be set.

BMP N1 identifies the potential phosphorus sources in the watershed. Construction projects in this watershed can be identified during plan review process and notified of state requirements on Phosphorus. The Stormwater Coordinator screens Town Branch watershed and urbanization thereof.

BMP N2 Annual phosphorus nutrient management program to be offered to private residents and commercial users such as landscapers. Other identified phosphorus sources in the Town Branch Watershed will be addressed for reduction as appropriate. Materials will be developed and distributed in coordination with the City. Advertising will be focused on residents in the watershed. Attendance and materials will be recorded.

The third **BMP N3**, concentrates on municipal operations Phosphorus use identification and analyzing fertilizer reduction efforts in this watershed.

BMP M1 – Monitoring involves analysis and collection of Phosphorus samples in accordance with approved methods. Per the Total Maximum Daily Load For Total Phosphorus For Town Branch Near Bentonville, Arkansas (Reach 11070208-901) February 2014 Revision report, the target average annual P concentration is 0.455mg/L. Per ADEQ, the WLA from 2010 report is 2.65 lbs/day. Quarterly samples are to be taken at State sampling site, ARK0056. It is located at the Slaughter Pen Park emergency access bridge on NW A St. (Lat 36.407192 Long -94.212449)

Responsible Parties

The Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service will be partnering with the municipality to be responsible for the development and implementation of the public education efforts.

Performance Standard

The city will identify potential Phosphorus sources and develop nutrient reduction strategies. Education of Landscapers and homeowners on fertilizers usage on lawn landscapes will be conducted. Local partnerships with watershed groups can assist with public education about nutrient sources too. The Coordinator reviews construction site plans for impacts to the Town Branch watershed. Confirmation of development in the watershed will be electronically logged.

The city will evaluate TMDL compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. The monitoring program will assess the effectiveness of the program, assess the impacts to receiving waters resulting from stormwater discharges, identify sources of elevated pollutant loads and specific pollutants, and detect and eliminate illicit discharges and illegal connections to the MS4.

Summary of Measurable Goals

The measurable goals of the nutrient management program will include:

- Determine of phosphorus sources. Identify construction sites in the Town Branch watershed and advise to limit phosphorus use
- Document materials and/or attendance of an annual public education program offered on phosphorus reduction nutrient management
- Evaluate the type of fertilizer use by municipal operations in the Town Branch watershed.
- Sample for Phosphorus in Town Branch

Minimum Control Measure for TMDL

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
N1	Identify potential significant sources of phosphorus in municipal storm water in Town Branch watershed	Monitor and revise as necessary.	Identify during plan review and state during Preconstruction Meeting that fertilizers are limited for this construction activity	Work to reduce phosphorus contributed by any other significant source identified in the source identification evaluation	Monitor and revise program as necessary
N2	Create public education program to reduce the discharge of P by residential and commercial use of fertilizers	Identify target audience by address	Implement annual public education program to reduce the discharge of phosphorus contributed by residential and commercial use of fertilizers	Monitor and revise as necessary. Add other sources to program as appropriate.	Monitor and revise as necessary. Add other sources to program as appropriate.
N3	Evaluate discharge of phosphorus contributed by fertilizer use at municipal operations	Confirm City facilities, Parks and Recreation, Street Dept, and subcontractors limit fertilizer with Phosphorus in Town Branch Watershed	Evaluate reductions of phosphorus discharges contributed by fertilizer use at municipal operations	Confirm municipal operations are limiting fertilizer with Phosphorus in Town Branch Watershed	Confirm municipal operations are not using fertilizer with Phosphorus in Town Branch Watershed
M1	Monitor P concentration quarterly in Town Branch, as applicable	Monitor P concentration quarterly in Town Branch, as applicable	Identify progress made on nutrient of concern, as applicable	Monitor P concentration quarterly in Town Branch, as applicable	Monitor P concentration quarterly in Town Branch, as applicable

Appendix I

1. Storm Water Management Program (SWMP)

Responsibilities

Each Municipal Separate Storm Sewer System (MS4) permittee shall contribute to the development and updates of a comprehensive SWMP including pollution prevention measures, treatment of removal techniques, use of legal authority, and other appropriate means to control the quality of storm water discharge from the MS4. Controls and activities in the SWMP shall identify areas of that MS4 responsibility on a jurisdiction, applicability, or specific area basis. The SWMP shall include controls necessary to effectively prohibit the discharge of non-storm water into the MS4 and reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP). The SWMP shall identify the roles and responsibilities of each MS4.

Term of SWMP

The SWMP shall cover the term of the permit and shall be updated as necessary, or as required by the City Engineer, to ensure compliance with the statutory requirement of Section 402(p)(3)(B) of the Clean Water Act.

Implementation

Implementation of the revised and updated SWMP may be achieved through participation with other MS4s, public agencies or private entities in corporative efforts to satisfy the requirement of Part II of the permit.

Legal Authority

Each MS4 shall ensure legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. This legal authority may be a combination of statute, ordinance, permit, contract, order or inter-jurisdictional agreements with neighboring MS4s with existing legal authority to control contribution of pollutants into the MS4:

- To prohibit polluted discharges into the MS4;
- Control the discharge of spills, dumping or disposal of materials other than storm water into the MS4;
- Compliance with ordinances, permits and orders;
- To carry out inspections, surveillance, enforcement and monitoring procedures necessary to determine compliance with permit conditions.

SWMP Resources

Each MS4 shall provide adequate finances, staff, equipment, and support capabilities to implement their activities under the SWMP.

SWMP Review and Update

Each MS4 shall participate in an annual review of the current SWMP in conjunction with preparation of the annual report required under Part V.D. The SWMP may change during the life of the permit in accordance with Part II G and Part III of the permit.

Retention of SWMP Records

Each MS4 shall retain the SWMP development in accordance with Parts II and III for at least three (3) years after coverage under this permit terminates.

Discharge Goals

The following goals are established for discharges from the Northwest Arkansas MS4s:

- No discharge of toxics in toxic amounts.
- No discharge of pollutants in quantities that would cause a violation of Arkansas Water Quality Standards.
- No discharge of floatable debris, oils, scum, foam, or grease in other than trace amounts.
- No discharge of non-storm water from the MS4 (except as provided in Permit)
- No discharge of sediment from construction activities within the MS4.

2. New and Re-Development Program

All construction plans are submitted to the City for approval and will be reviewed for compliance with Arkansas Department of Environmental Quality (ADEQ) and the City Stormwater Pollution Prevention and Erosion Control Standards... Ordinance. Plans reviewed will be required to have Best Management Practices (BMP), which will help eliminate sediment erosion in storm water runoff. The site plan will indicate where BMPs will be installed and a detail sheet indicates the correct way to install each practice. A Storm Water Pollution Prevention Plan (SWPPP) is reviewed and a copy of the Notice of Intent (NOI) is required from the ADEQ if the disturbed area is 5 acres or greater. Additionally after the (SWPPP) is reviewed and approved, a Grading Permit is required from the City if the disturbed area is 1 acre or greater before construction is authorized. The City is always open to new and innovative devices that will accomplish the goals in this SWMP. No land disturbing will be authorized without a pre-construction conference.

As a project is completed, all Permittees will request a Final Construction Site Inspection from the City. The Stormwater inspector will inspect the permitted site to confirm vegetation establishment per approved plans. If the permittee filed an NOI with the ADEQ or a Grading Permit with the City, the permittee will fill out a Notice of Termination (NOT). The following conditions must be met before a NOT can be filed:

- The site has been 100% stabilized with a vegetative density of at least 80% ground cover, per ARR150000.
- All polluted storm water discharges from construction activities have been eliminated,
- A transfer of owner/operations; operator is no longer in charge of the site and a transfer of coverage to a different operator has been received.
- Photographs provided of groundcover or vegetative cover
- If project is part of a common plan of development, then all certifications have been collected.

If the drainage ways or detention ponds do not have vegetation established at the time of inspection, or the seeding and erosion control has not occurred, the site will not pass inspection. The filing of the NOT to both the ADEQ and the City is the responsibility of the permittee.

Annual reviews and updates will be made to City ordinances and the SWMP to include criteria and procedures for determining and enforcing requirements for structural and non-structural controls on new and significant redevelopment and re-construction of roads and highways.

3. Flood Control Projects and Structural Controls Program

Today, the City maintains approximately 50 detention basins built within the city limits before 2005. Ownership of stormwater detention ponds in commercial, industrial, and non-residential areas not accepted by the City shall be vested in the property owner. The Developer must warrant the operation of the drainage system for a 1-year period after the acceptance by the City by an acceptable Maintenance Bond or equal provided by the Developer's Contractor or the Developer. The bond shall be required to be extended until 1 year after all phases of the subdivision that substantially drain into the basin are completed.

No alteration of the drainage system will be allowed without the approval of the City Staff. If construction of the basin is not complete, a cash bond from an acceptable financial institution shall be posted in addition to the Performance/Payment bond.

Detention facilities, when required, are to be built in conjunction with storm sewer installation and/or grading. Since these facilities are intended to control increased runoff, they must be partially or fully operational soon after the clearing of vegetation. Silt and debris connected with early construction shall be removed periodically from the detention area and control structure to maintain the facility's storage capacity. Maintenance of detention facilities is divided into two components. The first is long-term maintenance that involves removal of sediment from the basin and outlet control structure. Maintenance to an outlet structure is likely minimal due to the initial design of permanent concrete or pipe structures. Studies indicate that in developing areas, basin cleaning by front-end loader or grader is estimated to be needed once every 5 to 10 years. In residential subdivisions where the City has accepted the detention basin, the City is responsible for long-term maintenance. The residential developer and all non-residential property owners are responsible for long-term maintenance in basins not accepted by the City.

Short-term maintenance or regular maintenance is the second component and is the responsibility of the Developer or association for 1 year after acceptance of the final plat or filing of the last subdivision phase that substantially adds stormwater to a detention basin. The items considered short-term maintenance are as follows:

1. Minor dirt and mud removal.
2. Outlet cleaning
3. Mowing
4. Herbicide spraying (in strict conformance with state and federal law)
5. Litter control.

The responsibility of maintenance of the detention facilities and single-lot development projects shall remain with the general contractor until final construction inspection of the development is performed and approved, and a legal occupancy permit is issued. After legal occupancy of the project, the maintenance of detention facilities shall be vested with the owner of the detention pond.

The City reviews all plans for the development of retention/detention ponds for compliance with the City Drainage Criteria Manual.

The City will continue to evaluate, prioritize, and install structural controls on developed areas or retrofitting of existing structures. These structures shall be operated in a manner to reduce the discharge of pollutants to the maximum extent possible (MEP).

4. Construction Site Runoff Program

The City requires that a Pre-Construction Conference be held with the City prior to the start of all land disturbing activities for the construction of new utilities, industrial, commercial or institutional facilities, multi-family residential units and residential subdivisions. In order to schedule a Pre-Construction conference, several documents must be provided:

- *Erosion Control Site Plan:* Drawings (SWPPP) and narrative identifying the placement of all planned BMPs with installation instructions & details.
- *Permit Authorization from ADEQ:* If the area of land to be disturbed is 5 acres or greater, a letter issuing coverage under the ADEQ’s General Construction Permit.
- *Small Site Construction Notice:* If the area of land to be disturbed is less than 5 acres, an ADEQ automatic coverage form stating the amount of disturbed area and person responsible for erosion control during construction.
- *City Permit authorization:* If the area of land to be disturbed is 1 acre or greater.
- *Staff Approval of Construction and SWPPP Plans*

During the construction phase of a project, the city Inspectors will have access to the site and its records and a “maintenance and inspection” report will be completed and discussed with the owner/operator or designer. Upon the next inspection, if deficiencies have not been corrected, a Notice of Violation (NOV) will be issued to the owner/operator. If a site remains deficient the Storm Water Coordinator will continue enforcement procedures outlined in the City’s Stormwater Pollution Prevention and Erosion Control Standards Ordinance.

The City’s ordinances will be reviewed regularly and modified as needed. Notifications to contractors/developers of their potential responsibilities under the ADEQ permitting program, for construction site runoff, will be done by the City during the review process.

Municipal Construction Permits

The City is the “owner” of any City project. The contractor will have “daily operational control” of each project and therefore manage the installation and maintenance of erosion controls. The City’s Stormwater Inspector will regularly inspect each project until completion.

5. Bentonville Solid Waste

The City realizes that there are other forms of waste that will need to be disposed. Bentonville is in the Boston Mountain Solid Waste District (BMSWD) area of the state. Together the District, Cities and County work together to address solid waste issues throughout Washington and Benton Counties. Listed below are the different items, locations, and phone numbers accepted by the Solid Waste District.

Boston Mountain also works with local solid waste haulers to license and monitor for compliance with solid waste regulations of Arkansas. The City also has trash and grass clippings service available to all residents of the City.

The City contracts Allied Waste for recycling. Typical items accepted include aluminum cans, office paper, #1 & #2 plastics bottles, newspaper, corrugated cardboard, and grass clippings. There is usually no charge for dropping off recyclable items at the facilities listed below. Items such as used motor oil, dead batteries, TV's, plastic bottles, glass and paper-recycling options exist in Benton County.

Recycling Drop-Off and Drive Locations

- Bentonville Composting Facility, 2000 NW "A" Street. Phone (479) 271-5954
- Bella Vista AARP, 400 Pinion Bluff Dr. (479) 876-5343
- EnviroSources – 1700 S 1st. Rogers, AR (479) 636-4447
- Marck Recycling - 3507 N Arkansas. Phone (479) 878-1384
- Roll Off Service - (479) 872-9098
- Boston Mountain Solid Waste District, 11398 Bond Road, Phone (479) 846-3005

Household Hazardous Waste (HHW)

These items include automotive products, pool chemicals, paint products, lawn & garden products, cleaning products, batteries, thermometers, florescent bulbs, etc. Items can be recycled at a local HHW collection center at no charge for household quantities available to City residents. For more information on Household Hazardous Waste, please visit the EPA website or Water Environment Federation website.

- Benton County Solid Waste District, 5702 Brookside RD, Centerton, AR

Electronics

Benton County has an electronics recycling program in place to meet the growing demand for disposal. A small fee covers the cost of disposal. The following items are accepted at the Benton County Household Hazardous Waste Drop-Off.

- Computers- includes monitor, CPU, keyboard, speakers & mouse
- Handheld devices such as PDA's and iPods
- Media storage- CD's, DVD's, videotapes, floppy disks (free)
- TVs
- VCRs
- Printers
- Copiers
- Scanners
- Microwaves
- Home Stereos
- UPS's
- Cell Phones (free)

6. Public Outreach/Public Involvement

Since 2003, the cities of Bentonville, Springdale, Fayetteville, Rogers, Bethel Heights, Elkins, Elm Springs, Farmington, Greenland, Johnson, Little Flock, and Lowell, and along with Benton and Washington Counties and the University of Arkansas have been operating under EPA's federally mandated Phase II Stormwater regulations as "small" municipal separate storm sewer systems (MS4s) that meet "urbanized area" criteria based on 2000 U.S. Census population data. While these jurisdictions obtained separate NPDES permits, they jointly contracted with the University of Arkansas Cooperative Extension Service (CES) through the NWA Regional Planning Commission as a successful and cost-effective means of implementing the following minimum control measures required in the Phase II permits:

#1) Public Education and Outreach

#2) Public Involvement and Participation

#6) Pollution Prevention and Good Housekeeping (training for municipal employees)

An urban stormwater education steering committee (community members) and the MS4 Focus Team (municipality representatives) has been utilized to plan and assess regional urban stormwater outreach and education efforts. County Extension Agents in Benton and Washington Counties will continue to collaborate with CES Environmental and Natural Resource, Horticulture, Pest Management, and Public Policy state faculty on educational materials development, civic programs, construction workshops and municipal employee training. CES has produced professional press releases, radio PSAs, displays, brochures and fact sheets. They have also hired and trained local program para-professionals to conduct school and outreach programs at fairs and community events. Measurable program accomplishments are tracked and reported through quarterly and annual reports presented to the NWA Regional Planning Commission, education

steering committee, and MS4 focus group along with annual reports for each participating MS4 prior to the ADEQ annual reporting deadline.

7. Roadway Operation and Maintenance Program

The City Street Department manages the cleaning out of curb inlets to remove sediment and debris that could potentially clog storm drains. The Street Department has two street sweepers and manages the cleaning and repair of city streets. The Street Department manages roadside ditches and continually cleans and reshapes the ditches to maintain positive drainage. Updates to the SWMP will be made to include any roadway operation and management changes.

8. Pesticides, Herbicide and Fertilizer Application Program

Before a pesticide can be sold in Arkansas, it must first be registered with the Plant Board in accordance with the Arkansas Pesticide Control Act and Regulations. This allows the Plant Board to confirm that the product meets all State and Federal requirements to provide for both human and environmental protection. Each year the Pesticide Division registers approximately 10,000 pesticides for use in the State.

Both "users" and "applicators" of restricted use pesticides must be trained in the proper handling of such pesticides and then licensed by the Plant Board in accordance with the Arkansas Pesticide Use and Application Act and Regulations. Those applicators that will apply pesticides commercially must also be tested before a license can be issued. Each year the Pesticide Division issues approximately 15,000 Private Applicator Licenses, 900 Commercial Applicator Licenses, 2000 Non-Commercial Applicator Licenses, 500 Commercial Firm Licenses (ground and air), and 250 Custom Applicator Licenses.

The division also takes its responsibility for taking enforcement action against those persons who fail to comply with the laws and regulations very seriously. Enforcement actions are taken in a fair and equitable fashion as outlined by the Division's Enforcement Response Regulations. Penalties can range from a warning letter to a monetary assessment of up to \$1000 and license revocation. Please visit the Arkansas plant board site www.plantboard.org.

9. Pollution Complaints and Spills Response Programs

Any pollution complaints and spills to the City streets and right-of-ways are handled by the City Fire Department or the Benton County Emergency Response. Citizen complaints concerning illicit discharges or polluted discharges are handled by the Stormwater Coordinator and other Departments as needed...

10. Illicit Discharge Detection and Elimination Process

The City Illicit Discharge Detection and Elimination Program is set up to locate and eliminate illicit discharges and improper disposals into the MS4. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal. Follow-up activities to eliminate illicit discharges and improper disposal may be prioritized on the basis of magnitude and nature of the suspected discharge; sensitivity of the receiving water; and/or other relevant factors. This program establishes priorities and schedules for screening the entire MS4 at least once during the permit term. The City's Illicit Discharge Ordinance (unapproved draft) shall require the elimination of illicit discharges and improper disposal practices as expeditiously as reasonably possible. Where the elimination of an illicit discharge within ten (10) days is not possible, the City shall require an expeditious schedule for removal of the discharge. In the interim, the City shall require the operator of the illicit discharge to take all reasonable measures to minimize the discharge of pollutants to the MS4.

Illicit Discharges and Improper Disposal:

Non-storm water discharge to the MS4 shall be effectively prohibited. The following non-stormwater discharges are deemed acceptable and not a violation:

1. A discharge authorized by an NPDES permit other than the NPDES permit for discharges from the MS4;
2. Uncontaminated waterline flushing and other infrequent discharges from potable water sources;
3. Infrequent uncontaminated discharge from landscape irrigation or lawn watering;
4. Discharge from the occasional non-commercial washing of vehicles or the non-commercial washing of vehicles by charitable organizations.
5. Uncontaminated discharge from foundation, footing or crawl space drains, sump pumps and air conditioning condensation drains;
6. Uncontaminated groundwater, including rising groundwater, groundwater infiltration into storm drains, pumped groundwater and springs;
7. Diverted stream flows and natural riparian habitat or wetland flows;
8. A discharge or flow of fire protection water that does not contain oil or hazardous substances or materials.

11. Supporting Permit Conditions

Supporting Departments

Engineering Department

This Department places a high priority on implementing new and innovative environmental friendly development techniques to protect sensitive public and private water supplies. This Department's responsibility is to ensure that any development that occurs within the City Limits is in the best interest of its citizens, and that the City will continue to grow in a manner that provides the best quality of life for the citizens.

Mayor and City Council

The Mayor and City Council approve ordinances, changes to ordinances, contracts, fees and annual budgets.

Transportation Department

This Department works to sweep and maintain the streets, clean and maintain roadside ditches, mow and maintain major highway intersection right-of-ways including landscaped areas and maintain curb inlets and junction boxes.

Fire Department

Spill prevention and response is a requirement in the City's MS4 permit ARR040019. The City Fire Department works to prevent, contain and respond to spills that have a potential to pollute the City's MS4. The spill response program includes a combination of spill response by each MS4 and legal requirements for private entities within the MS4 municipal jurisdiction.

Parks Department

Parks employees maintain all City park facilities including landscaped areas where pesticides, herbicides, and fertilizer are used.

Water and Sewer Department

Line Maintenance staff work to eliminate sanitary sewer and water line breaks and overflows and make repairs.

Legal Authority and SWMP Resources

City of Bentonville Municipal Code and City Attorney's Office

Subdivision Regulations

The Subdivision Regulations govern private and public development plans. They contain the Storm Water Management Regulations, Storm Water Pollution and Prevention and Erosion Control Standards, and Subdivision Design Standards.

Appendix II

3-Year Sample NWA Regional Urban Stormwater Education Program University of Arkansas Cooperative Extension Service

Introduction

As the public education branch of the University of Arkansas, the mission of the Cooperative Extension Service (CES) is to provide research-based information through non-formal education to help Arkansans improve their economic well-being and the quality of their lives. Since 1990, CES has established a reputation for effective agricultural and urban nonpoint pollution prevention programs through USDA- and EPA-funded water quality education grants totaling more than \$2,789,000 for 12 projects in Benton, Carroll, Madison, and Washington Counties.

Since 2003, the cities of Bentonville, Bethel Heights, Elkins, Elm Springs, Farmington, Fayetteville, Greenland, Johnson, Little Flock, Lowell, Springdale and Rogers along with Benton and Washington Counties and the University of Arkansas have been operating under EPA's federally mandated Phase II Stormwater regulations as "small" municipal separate storm sewer systems (MS4s) that meet "urbanized area" criteria based on 2000 U.S. Census population data. While these jurisdictions obtained separate NPDES permits, they jointly contracted with CES through the NWA Regional Planning Commission as a successful and cost-effective means of implementing the following minimum control measures required in their Phase II permits:

- #1) Public Education and Outreach
- #2) Public Involvement and Participation
- #6) Pollution Prevention and Good Housekeeping (training for municipal employees)

Program accomplishments to date are summarized in the attached file, 'NWA Stormwater Ed Overview.pdf'. Positive feedback from ADEQ and participating MS4s has led to CES and the NWARPC partnering for an additional urban stormwater education program in support of the MS4s' new 2020-2024 stormwater management permits.

As before, an urban stormwater education steering committee and the MS4 Focus Team will be utilized to plan and assess regional urban stormwater outreach and education efforts. County Extension Agents in Benton and Washington Counties will continue to collaborate with CES Environmental and Natural Resource, Horticulture, Pest Management, and Public Policy state faculty on educational materials development, civic programs, construction workshops and municipal employee training. CES' Communication faculty will produce professional press releases, radio PSAs, displays, brochures and fact sheets and local program para-professionals will be hired and trained to conduct school and outreach programs at fairs and community events. Measurable program accomplishments will continue to be tracked and reported through quarterly and annual reports that will be presented to the NWA Regional Planning Commission, education steering committee, and MS4 focus group along with annual reports for each participating MS4 prior to the ADEQ annual reporting deadline.

It is understood that the MS4s may be restricted to one-year contracts to be renewed upon annual budget approval from city councils, Quorum Courts, and the University. However, the following plan of work and budget is based on a 3-year schedule.

Tasks and Objectives

Task 1: Input and Planning

Objective: Utilize a stormwater outreach/education steering committee and MS4 Focus Team to identify informational needs and plan stormwater outreach, education and public participation programs in urbanized areas of participating MS4s.

Subtask 1.1 A geographically-based 23-member stormwater education steering committee consists of membership weighted according to % urbanized area population:

<u>MS4</u>	<u>Representatives</u>	<u>% UA</u>	<u>MS4</u>	<u>Representatives</u>	<u>% UA</u>
Fayetteville	4	30.4	Rogers	3	21.0
Springdale	3	25.7	Bentonville	2	10.8
U of A	1	2.1	Lowell	1	2.8
Farmington	1	1.9	Benton County	1	1.1
Johnson	1	1.3	Little Flock	1	0.9
Washington County	1	0.8	Bethel Heights	1	0.4
Elkins	1	0.4	Elm Springs	1	0.1
Greenland	1	0.3			

Steering committee members represent diverse backgrounds/interests and include, but are not limited to those affiliated with schools and/or youth programs, regional businesses, civic organizations, Property Owner Associations (POA's), public officials (City Council, Planning Commission and Quorum Court members), etc.. Committee member representatives will be suggested by MS4s.

Subtask 1.2 Committee input will be used to identify and plan 1) critical stormwater issues, 2) target audiences, 3) program methods and 4) public relations strategies.

Subtask 1.3 The committee will be convened at least once each year to review and evaluate program accomplishments and plan next steps.

Accomplishments and Measurable Goals:

- Stormwater education steering committee will be updated with 23 total members that include representatives from all participating MS4s
- Committee will meet at least once each year
- # of potential audiences and stormwater education programs identified by committees
- # of public outreach, education and participation programs implemented based on education committee input

Task 2: Educational Materials Development

Objective: Gather, adapt and/or develop stormwater fact sheets, brochures, posters and displays for distribution in conjunction with public outreach campaigns and education programs

Subtask 2.1 Input from both the MS4 Focus Team and steering committee will guide the emphases of printed educational materials. Once topics have been identified, fact sheets will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays.

Subtask 2.2 Committee input will also be used to identify storm water topics to be developed into press releases, radio PSAs and utility billing inserts to city residents.

Subtask 2.3 Displays highlighting these topics of emphasis will be created for libraries, banks, schools, local festivals and county fairs.

Subtask 2.4 A regional stormwater webpage will explain urban stormwater runoff dynamics describe pollution prevention techniques, and list stormwater resource and contact information. The website will be hosted by CES but linked to participating MS4 sites.

Accomplishments and Measurable Goals:

- Fact sheets, brochures and posters will be created
- Utility billing inserts will be developed
- Press releases and PSAs created and submitted to media outlets
- Stormwater displays will be created
- A stormwater website will be maintained

Task 3: Public Outreach

Objective: Increase public awareness of stormwater dynamics, potential pollutant sources, pathways to regional water resources and pollution prevention techniques

Subtask 3.1 Upcoming events, program successes and contact information will be promoted through mass media sources.

Subtask 3.2 Stormwater displays will be set up at regional libraries, schools, banks and public events as planned.

Subtask 3.3 Stormwater management and pollution prevention messages will be provided to participating MS4s for inclusion in municipal utility bill mailings to their residents.

Subtask 3.4 CES will include fertilization and nutrient management fact sheets or other applicable information in with lawn and garden soil test result mailings for residents of participating MS4s.

Subtask 3.5 Education committees will help determine potential locations (at parks and along roads that cross urban streams) to install signs identifying waterways and their watershed. Where available, CES will work through city and county sign shops to create and install these outdoor, heavy-gauge aluminum signs. If a participating MS4 does not have internal sign-making capabilities, CES will work with local businesses to create the creek signs, but the MS4 will be financially responsible for paying for them.

Accomplishments and Measurable Goals:

- Partnerships will be pursued with *The Morning News*, the *Northwest Arkansas Times* and the *Arkansas Democrat-Gazette*, KFSM-5 News, KHOG Channel 29, KPOM/KFAA-TV, KUAF 91.3 FM and Cumulus Broadcasting and Clear Channel radio stations
- Stormwater-related articles will be published
- Public service announcements will be repeated on radio and TV
- Displays will be used at a minimum of 12 locations and/or events
- # of people at an event who visited the display or took a pamphlet/booklet
- # of educational materials distributed
- # of stormwater inserts distributed with utility bills
- # of landscaping and lawn care educational materials distributed with soil test results
- # of creek signs installed

Task 4: Public Education

Objective: Increase urban resident's knowledge and understanding of stormwater dynamics and incite individual BMP implementation to reduce stormwater pollution

Subtask 4.1 Educational programs for school youth will focus on the water cycle, watersheds, stormwater dynamics, water quality and pollution prevention using the EnviroScape surface runoff model, groundwater simulator, hands-on exercises from Project WET, Project WILD, and Project Learning Tree and creek side classrooms. Programs conducted in schools will support the Arkansas State Framework required science curriculum. Para-professionals will be hired and trained to conduct stormwater education programs for schools in Bentonville, Elkins, Farmington, Fayetteville, Greenland, Springdale and Rogers.

Subtask 4.2 Educational presentations will be given at civic meetings, POA's, Master Gardener Training sessions, public libraries, etc. to illustrate stormwater dynamics, identify potential pollutants and pathways, describe techniques to reduce stormwater pollution and encourage voluntary BMP implementation (including reduced home site stormwater runoff, improved lawn and garden management, automotive maintenance, and the proper use, handling and disposal of household hazardous products).

Subtask 4.3 The Urban Home*A*Syst environmental risk self-assessment tool will be promoted in conjunction with civic presentations, Master Gardener training, fact sheets, displays, and the stormwater website.

Accomplishments and Measurable Goals:

- 1,500 students will be reached through stormwater education programs
- Educational presentations will be given each year to adult audiences
- # of classes and schools that participate in stormwater programs
- # of educational materials distributed to schools
- # of certificates given out for participation in stormwater education
- # of participants who indicate a change in attitude/behavior following presentations
- # of Urban Home*A*Syst environmental risk self-assessments conducted

Task 5: Public Participation

Objective: Multiply efforts to educate the public about the link between storm drain systems and regional water quality, instill a sense of public ownership of watershed resources and provide permanence for stormwater education programs

Subtask 5.1 Using a "Train-the-Trainer" process, stormwater and pollution prevention will be included in the 40 hours of training for 45-50 new Benton and Washington County Master Gardener. In turn, these Master Gardener volunteers will help educate area residents about soil testing, matching fertilizer applications to plant needs, integrated pest management, composting, native plants and rain gardens.

Subtask 5.2 Education committee members, Master Gardeners and other potential volunteers will be utilized to staff stormwater displays at festivals, fairs and other events.

Subtask 5.3 Organizations including POA's, civic clubs, local Stream Teams, Extension Homemakers, Master Gardeners and youth groups will be approached to stencil storm drains with messages like "Do Not Dump, Drains Directly to River/Lake" as community service projects.

Subtask 5.4 Similar citizen and youth groups will be encouraged to clean up/adopt local creeks in conjunction with the Arkansas Game and Fish Commission's Stream Team program.

Accomplishments and Measurable Goals:

- A minimum of 60 Master Gardener volunteer hours will be spent on educating area residents about proper fertilization, integrated pest management and backyard composting
- # of volunteer hours staffing displays at local fairs and festivals
- # of storm drain stenciling volunteers
- # of storm drains stenciled
- # of participants in Stream Team programs

Task 6: Municipal Employee Training

Objective: Equip municipal employees with a knowledge and understanding of how to reduce the potential impact of their activities on stormwater quality

Subtask 6.1 Conduct training sessions for municipal employees on EPA's Phase II stormwater management regulations for small MS4 jurisdictions.

Subtask 6.2 Conduct training sessions for municipal employees on Good Housekeeping BMPs (including vehicle maintenance and washing, spill response, stream maintenance, materials storage, and landscaping/turf management) as well as illicit discharge detection and elimination.

Subtask 6.3 Conduct training sessions for municipal employees on construction site regulations, SWPPPs, erosion and sediment control BMP selection, installation, maintenance and inspections.

Projected Accomplishments and Measurable Goals:

- At least 60 municipal employees trained
- # of educational materials distributed to municipal employees

Task 7: Evaluation and Reporting

Objective: Evaluate program efforts, track measurable results and annually report the progress of each subtask.

Subtask 7.1 Evaluation tools will be used to assess the impact of stormwater outreach and education efforts including youth educational programs, public presentations, Master Gardener trainings and the Urban Home*A*Syst self-assessment guide.

Subtask 7.2 Results of measurable goals will be tracked quarterly and submitted to NWARPC and committee members.

Subtask 7.3 Annual reports will be compiled and submitted to each participating MS4 one month prior to the ADEQ Phase II annual reporting deadline.

Urban Stormwater Education Program sample 2020-2024

University of Arkansas Division of Agriculture Cooperative Extension Service

Introduction

As the public education branch of the University Of Arkansas Division Of Agriculture, the mission of the Cooperative Extension Service (CES) is to provide research-based information through non-formal education to help Arkansans improve their economic well-being and the quality of their lives. Since 2004, the City of Bentonville has jointly contracted with CES through the Northwest Arkansas Regional Planning Commission as a successful and cost-effective means of implementing the following minimum control measures required in our Phase II permits:

- #1) Public Education and Outreach
- #2) Public Involvement and Participation
- #6) Pollution Prevention and Good Housekeeping – municipal employee training component

Program Planning and Evaluation

The City of Bentonville participates in bimonthly meetings of the NWA Stormwater Compliance Group and has representation on the NWA Regional Stormwater Education Steering Committee. We also have representation on the Stormwater Education Steering committee (public membership comprised of diverse backgrounds/interests) convenes at least once each year to review and evaluate program accomplishments and plan next steps. Both groups provide the localized input used to identify critical stormwater issues and target audiences and program methods and public relations strategies.

BMPs and Measurable Goals

Minimum Control Measure #1 - Public Outreach and Education

Develop and distribute electronic and printed educational materials

Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics have been identified, fact sheets, podcasts, e-learning modules, website content, newsletters, press releases, and PSAs will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Stormwater management and pollution prevention messages will be provided to participating MS4s for inclusion in municipal utility bill mailings to their residents.

Create displays and staff educational booths

Displays highlighting the annual topics of emphasis will be created and set up/staffed at libraries, banks, schools, local festivals, county fairs, etc.

Conduct hands-on youth stormwater/water quality education programs

Educational programs for school youth will focus on the water cycle, watersheds, stormwater dynamics, water quality and pollution prevention using the EnviroScape surface runoff model, groundwater simulator, hands-on exercises from Project WET, Project WILD, and Project Learning Tree and creek side classrooms. Programs conducted will support the Arkansas State Frameworks required curriculum.

Conduct stormwater programs for adult audiences

Educational presentations will be given to illustrate stormwater dynamics, identify potential pollutants and pathways, describe techniques to reduce stormwater pollution and encourage voluntary BMP implementation according to the annual topic/audience emphases outlined in the SWMP.

Measureable Goals:

Electronic and printed educational materials will be developed
The # of educational materials distributed will be documented
Stormwater displays will be created and used at a minimum of 5 events/locales
Stormwater education programs will be conducted for youth audiences
Stormwater education programs will be conducted for adult audiences

Performance Standard:

Urban stormwater outreach/education programs will reach a representative sample of many target audiences. (50% of the urbanized area population).

Minimum Control Measure #2 - Public Participation and Involvement

Train and Utilize Volunteer Educators

“Train-the-trainer” processes will be used to engage public volunteers and educators in teaching stormwater and pollution prevention (e.g. Benton and Washington County Master Gardeners, Master Naturalists, LakeSmart Leaders, etc.)

Conduct Public Participation/Involvement Events

Citizen and youth groups will participate in public involvement events (litter pick up, establishing demonstration rain gardens, planting riparian vegetation, stenciling storm drain inlets, etc.).

Engage Residents in Stormwater Policy Development

Information will be included through multiple outlets (website, newsletters, press releases, etc.) to encourage public input/involvement as MS4 stormwater management policy evolves.

Measureable Goals:

Train-the-trainer programs will be conducted.
Public participation events will be coordinated.

Performance Standard:

Public participation and involvement activities will be conducted.

Minimum Control Measure #6 – MS4 Employee Training

Train MS4 employees

MS4 employees will be equipped with a knowledge and understanding of how to reduce the potential impact of their municipal operations activities on stormwater quality.

Measureable Goal:

Training programs will be conducted for MS4 employees.

Performance Standard:

Training will be conducted for eligible employees annually.