

# ARR040000 Checklist

ARR04 0062

New

Renewal

Modification

Urbanized Area \_\_\_\_\_ City of Siloam Springs \_\_\_\_\_

Discharges to unnamed tributary of Sager Creek, thence to Sager Creek \_\_\_\_\_

HUC \_\_\_\_\_ 11110103 \_\_\_\_\_ Planning Segment \_\_\_\_\_ 3J \_\_\_\_\_

Ecologically Sensitive Waterbody (ESW): No  Yes

Extraordinary Resource Water (ERW): No  Yes

Natural and Scenic Waterway (NSW): No  Yes

Losing Stream Area: No  Yes

303(d) list: No  Yes  \_\_\_\_\_ Sager Creek \_\_\_\_\_

Pollutant: \_\_\_\_\_ Nitrate \_\_\_\_\_  Cat 4a  Cat 5

Permit Fee

Complete SWMP

Information entered into Access

Other Comments: \_\_\_\_\_ Sager Creek is impaired for Nitrates from Municipal Point Sources and is in Category 5e. \_\_\_\_\_

## **Stormwater Management Program (SWMP) Review Checklist**

### **City of Siloam – AR040062**

NOTE: All items that are marked NO or **bolded** need to be addressed. Please note that the provided notes are meant as recommendation.

The permittee shall develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements and the Clean Water Act. The SWMP should include management practices; control techniques and system, design, and engineering methods; and shall be modified to include provisions as ADEQ determines appropriate after its review of the program for the control of such pollutants. The SWMP shall include the following information for each of the six minimum control measures:

1. The best management practices (BMPs) that the MS4 or another entity will or already does implement for each of the stormwater minimum control measures;
2. The measurable goals for each of the BMPs, the ones the MS4 believes to have the authority to implement, including, as appropriate, the months and years in which the MS4 will undertake required actions, including interim milestones and the frequency of the action. At a minimum, measurable goals shall be implemented to satisfy this general permit's performance standards;
3. The person or persons, including position title or titles, or just the position title and contact information responsible for implementing or coordinating the BMPs for the SWMP. The SWMP shall include a Table of Organization, including a primary point of contact, which identifies how implementation across multiple positions, agencies and departments will occur, and;
4. In addition to the requirements listed above, the permittee shall provide a rationale for how and why the permittee selected each of the BMPs and measurable goals for the SWMP. The MS4 shall develop and implement the program within five years of initially being granted Small MS4 general permit coverage. If an MS4 initially had coverage under a previous version of this permit, then the MS4 shall revise the program and its implementation to satisfy this general permit's performance standards within two years of when the MS4 coverage under this general permit was granted.
5. BMPs shall be reevaluated in situations where an MS4 discharges to an impaired waterbody where the evaluation of the impairment has determined the MS4 is a contributor to the impairment. The enhanced BMPs shall be specifically addressed within the SWMP.
6. BMPs shall be reevaluated in situations where an MS4 discharges to a waterbody with an approved TMDL where the evaluation of the impairment has determined the MS4 is a contributor to the impairment. The enhanced BMPs shall be specifically addressed within the SWMP.

### **Public Education and Outreach on Stormwater Impacts**

1. The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. In the case of non-traditional MS4s (e.g., AHTD, universities, hospitals, prisons, military bases, and other government complexes), the permittee is only required to provide educational materials and outreach to the MS4 employees, on-site contractors, and individuals using the MS4's facilities.

2. *Decision process.* The permittee shall document the decision process for the development of a stormwater public education and outreach program. The rationale statement shall address both the overall public education program and the individual BMPs, measurable goals and responsible persons for the program. The rationale statement shall include the following information, at a minimum:
- 2.1. How the MS4 plans to inform individuals and households about the steps they can take to reduce stormwater pollution.  Yes  No  
**Notes:**
- 2.2. How the MS4 plans to inform individuals and groups on how to become involved in the stormwater program (with activities such as local stream and beach restoration activities);  
 Yes  No  
**Notes:**
- 2.3. Who are the target audiences for the MS4s education program who are likely to have significant stormwater impacts (including commercial, industrial and institutional entities) and why those target audiences were selected;  Yes  No  
**Notes:**
- 2.4. What are the target pollutant sources the MS4 public education program is designed to address;  Yes  No  
**Notes:**
- 2.5. What is the outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) the MS4 will use to reach the target audiences, and how many people does the MS4 expect to reach by the outreach strategy over the permit term;  Yes  No  
**Notes:**
- 2.6. Who (person or department) is responsible for overall management and implementation of the stormwater public education and outreach program and, if different, who is responsible for each of the BMPs identified for this program;  Yes  No  
**Notes:**
- 2.7. How will the MS4 evaluate the success of this minimum measure, including how the measurable goals were selected for each BMP.  Yes  No  
**Notes: Specific goals are outlined in the contract agreement with the University of Arkansas Cooperative Extension Service Staff and the City of Siloam and are not listed to save space. It specifies that these specific goals will be described in detail on the annual report.**
3. *Performance Standards.* The stormwater public education and outreach program shall include more than one mechanism and target at least five different stormwater themes or messages over the permit term. At a minimum, at least one theme or message shall be targeted to the land development community. For non-traditional MS4s, the land development community refers to landscaping and construction contractors working within its boundaries. The stormwater public education and outreach program shall reach at least 50 percent of the population over the permit term. This is included in the SWMP provided to the Department but the SMWP provided is simply the above issues with answers, not a program per say.

## Public Involvement/Participation

1. The permittee shall at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program. In the case of non-traditional MS4s (e.g., AHTD, universities, hospitals, prisons, military bases, and other government complexes), the MS4 is required to involve employees, on-site contractors, and individuals using the MS4 facilities.
  
2. *Decision process.* The permittee shall document the decision process for the development of a stormwater public involvement/participation program. The rationale statement shall address the overall public involvement/participation program and the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:
  - 2.1. Has the permittee involved the public in the development and submittal of the NOI and SWMP description;  Yes  No  
**Notes:**
  
  - 2.2. What is the MS4's plan to actively involve the public in the development and implementation of the program;  Yes  No  
**Notes:**
  
  - 2.3. Who are the target audiences for the public involvement program, including a description of the types of ethnic and economic groups engaged. The MS4 is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others;  Yes  No  
**Notes:**
  
  - 2.4. What are the types of public involvement activities included in the program. Where appropriate, consider the following types of public involvement activities: citizen representatives on a stormwater management panel, public hearings, working with citizen volunteers willing to educate others about the program, volunteer monitoring or stream/beach clean-up activities;  Yes  No  
**Notes:**
  
  - 2.5. Who (person or department) is responsible for the overall management and implementation of the stormwater public involvement/participation program and, if different, who is responsible for each of the BMPs identified for this program,  Yes  No  
**Notes:**
  
  - 2.6. How the MS4 will evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs.  Yes  No  
**Notes:**
  
3. *Performance Standards.* The stormwater public involvement/participation program shall include at least five public involvement activities over the permit term.

## Illicit Discharge Detection and Elimination

1. The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges, as defined in Part 6 of this permit, into the small MS4 (for illicit discharges to the MS4 via an adjacent, outside of the MS4's jurisdiction, interconnected MS4, the MS4 are only required to inform the neighboring MS4 and ADEQ in the annual report submission, of their existence);
2. The permittee shall develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls. Within five years of when the coverage under this general permit was granted, the storm sewer system map shall also include the entire MS4 system, including catch basins, pipes, ditches and public and private stormwater facilities. MS4s with urbanized area increases resulting from the 2010 census must update their storm sewer maps by the expiration of this permit;
3. The permittee shall to the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, illicit discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
  - 3.1. The permittee shall develop and implement a plan to detect and eliminate non-stormwater discharges, including illegal dumping, to the system.
  - 3.2. The permittee shall inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
  - 3.3. The permittee shall address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if the MS4 identifies them as significant contributors of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from emergency fire fighting activities (by definition, not an illicit discharge). Needs to be addressed if this is an issue or not.
  - 3.4. The permittee may also develop a list of other similar occasional incidental non-stormwater discharges (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-stormwater discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the MS4 have established for allowing these discharges to the MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs on the wash water, etc.). The MS4 must document in the SWMP any local controls or conditions placed on the discharges. The MS4 must include a provision prohibiting any individual non-stormwater discharge that is determined to be contributing significant amounts of pollutants to the MS4. Needs to be addressed if this is an issue or not.
  - 3.5. *Decision process.* The permittee shall document the decision process for the development of a stormwater illicit discharge detection and elimination program. The rationale statement shall address both the overall illicit discharge detection and elimination program and the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:
    - 3.5.1. How the MS4 will develop a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information was used for the maps, and the plan to verify the outfall locations with field surveys. If already completed, describe how the map was developed. Also, describe how the map will be regularly updated;  Yes  No

**Notes:**

- 3.5.2. The mechanism (ordinance or other regulatory mechanism) the MS4 will use to effectively prohibit illicit discharges into the MS4 and why the MS4 chose that mechanism. If this mechanism needs to be developed, then describe in the plan and a schedule to do so. If an ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the program;  Yes  No

**Notes:**

- 3.5.3. The plan to ensure through appropriate enforcement procedures and actions that the illicit discharge ordinance (or other regulatory mechanism) is implemented;  Yes  No

**Notes:**

- 3.5.4. The plan to detect and address illicit discharges to the MS4 system, including discharges from illegal dumping and spills. The plan shall include dry weather field screening for non-stormwater flows and ADEQ recommends field tests of selected chemical parameters as indicators of discharge sources. The description shall address the following, at a minimum:

3.5.4.1. Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches;  Yes  No

3.5.4.2. Procedures for tracing the source of an illicit discharge, including the specific techniques that will used to detect the location of the source;  Yes  No

3.5.4.3. Procedures for removing the source of the illicit discharge; and  Yes  No

3.5.4.4. Procedures for program evaluation and assessment.  Yes  No

- 3.5.5. How the MS4 plans to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Include in the description how this plan will coordinate with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs;  Yes  No

**Notes:**

- 3.5.6. Who is responsible for overall management and implementation of the stormwater illicit discharge detection and elimination program and, if different, who is responsible for each of the BMPs identified for this program, and;  Yes  No

**Notes:**

- 3.5.7. How the MS4 will evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs.  Yes  No

**Notes:**

- 3.2.3.10. *Performance Standards.* The stormwater illicit discharge detection and elimination program shall include dry-weather screening of all stormwater outfalls located in the MS4's urbanized area at the time of this permit coverage over the permit term. Only those outfalls draining undeveloped watersheds do not need to be screened for illicit discharges. The storm sewer system map shall be updated annually as needed for changes occurring in the urbanized area boundaries at the time of permit coverage.

### Construction Site Stormwater Runoff Control

1. The permittee shall develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of pollutants in stormwater discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If ADEQ waives requirements for stormwater discharges associated with small construction from a specific site(s), the permittee is not required to enforce the program to reduce pollutant discharges from such site(s). The program shall include the development and implementation of, at a minimum:
  - 1.1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law. The ordinance or other regulatory mechanism shall be at least as stringent and not conflicting with the criteria set forth in the current, at time of issuance of this permit, ADEQ NPDES General Stormwater Permit for Construction Activities applicable for the permit area. This would include the statewide NPDES General Stormwater Permit for Construction Activities. If initially coverage was under a previous version of this permit then the ordinance or other regulatory mechanism, if needed, shall be revised within two years of coverage under this general permit was granted;
  - 1.2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
  - 1.3. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
  - 1.4. Procedures for site plan review which incorporate consideration of potential water quality impacts;
  - 1.5. Procedures for receipt and consideration of information submitted by the public; and
  - 1.6. Procedures for site inspection and enforcement of control measures.
  
2. *Decision process.* The permittee shall document the decision process for the development of a construction site stormwater control program. The rationale statement shall address both the overall construction site stormwater control program and the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:
  - 2.1. The mechanism (ordinance or other regulatory mechanism) that will be used to require erosion and sediment controls at construction sites and why the MS4 chose that mechanism. If it is needed to develop this mechanism, describe the plan and a schedule to do so. If the ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the SWMP description;  Yes  No  
**Notes:**
  
  - 2.2. The plan to ensure compliance with the erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms that will be used to ensure compliance. Describe the procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such as a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance;  Yes  No  
**Notes:**
  
  - 2.3. The requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste;  Yes  No  
**Notes:**
  
  - 2.4. The procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Describe the procedures and the rationale for how certain

sites will be identified for site plan review, if not all plans are reviewed. Describe the estimated number and percentage of sites that will have pre-construction site plans reviewed;  Yes  No

**Notes:**

2.5. The procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with the public education program;  Yes  No

**Notes:**

2.6. The procedures for site inspection and enforcement of control measures, including how sites are prioritized for inspection;  Yes  No

**Notes:**

2.7. Who is responsible for overall management and implementation of the construction site stormwater control program and, if different, who is responsible for each of the BMPs identified for this program; and  Yes  No

**Notes:**

2.8. Describe how the MS4 will evaluate the success of this minimum measure, including how the measurable goals were selected for each of the BMPs.  Yes  No

**Notes:**

3. *Performance Standards.* The construction site stormwater control program shall include pre-construction site plan reviews (reviews of construction site Stormwater Pollution Prevention Plans) of 100 percent of projects from construction activities that result in a land disturbance of greater than or equal to one acre. These applicable sites shall be inspected at least on a monthly basis to ensure compliance.



### Post-Construction Stormwater Management in New Development and Redevelopment

1. The permittee shall develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into a small MS4. The program shall ensure that controls are in place that will prevent or minimize water quality impacts;
2. The permittee shall develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community;
3. The permittee shall use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law. The ordinance or other regulatory mechanism shall be at least as stringent as the criteria set forth in the current, at time of issuance of this permit, ADEQ NPDES General Stormwater Permit for Construction Activities applicable for a permitted area. This would include the statewide NPDES General Stormwater Permit for Construction Activities. Of specific note is that a goal of at least 80% removal of total suspended solids from these flows which exceed predevelopment levels should be used in designing and installing stormwater management controls (where practicable). If initially coverage was under a previous version of this permit, then the ordinance or other regulatory mechanism, if needed, shall be revised within two years of when coverage under this general permit was granted; and
4. The permittee shall ensure adequate long-term operation and maintenance of BMPs.
5. *Decision process.* The permittee shall document the decision process for the development of a post-construction SWMP. The rationale statement shall address both the overall post-construction SWMP and the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:
  - 5.1. The program to address stormwater runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program.  Yes  No  
**Notes:**
  - 5.2. How the program will be specifically tailored for a local community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions.  Yes  No  
**Notes:**
  - 5.3. Any non-structural BMPs in the program, including, as appropriate: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure; education programs for developers and the public about project designs that minimize water quality impacts; and other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.  Yes  No  
**Notes:**

- 5.4. Any structural BMPs in the program, including, as appropriate: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, bio-retention cells, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches.  Yes  No

**Notes:**

- 5.5. The mechanisms (ordinance or other regulatory mechanisms) used to address post-construction runoff from new developments and redevelopments and why they were chosen. If a mechanism needs to be developed, then describe a plan and a schedule to do so. If an ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the program.  Yes  No

**Notes:**

- 5.6. How the permittee will ensure the long-term operation and maintenance (O&M) of the selected BMPs. Options to help ensure that future O&M responsibilities are clearly identified include an agreement between the permittee and another party such as the post-development landowners or regional authorities.  Yes  No

**Notes:**

- 5.7. Who is responsible for overall management and implementation of the post-construction SWMP and, if different, who is responsible for each of the BMPs identified for this program.  Yes  No

**Notes:**

- 5.8. How the MS4 will evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs.  Yes  No

**Notes:**

6. *Performance Standards.* The post-construction SWMP shall include pre-construction site plan review (for compliance with local requirements for post-construction management of stormwater) of 100 percent of projects from construction activities that result in a land disturbance of greater than or equal to one acre to ensure that required controls are designed per requirements. These applicable sites shall be inspected to ensure that controls are installed per requirements. The program shall also ensure that long-term operation and maintenance (O&M) plans are developed and agreements in place for all applicable sites.

7. *Low Impact Development.* ADEQ recommends MS4s to evaluate their existing codes and planning procedures to remove impediments to low impact development and green infrastructure. ADEQ also encourages municipalities to evaluate proposed developments using green infrastructure for waivers from local requirements in their community planning process. You must include information on efforts to identify and remove impediments to LID in the post-construction program element of the Annual Report covering the 4th year of the permit.

**Pollution Prevention/Good Housekeeping for Municipal Operations**

1. The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and
2. Using training materials that are available from EPA, ADEQ, other organizations or developed in-house, the program shall include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance; and

The permittee shall include a list of industrial facilities owned or operated by the MS4 that are subject to ADEQ's Industrial Stormwater General Permit or individual NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the MS4. Include the ADEQ permit number or a copy of the Industrial NOI form for each facility. For the municipal facilities that conduct activities described in 40 CFR 122.26(b)(14) that are not required to obtain Industrial Stormwater General Permit coverage a Stormwater Pollution Prevention Plan (SWPPP) shall be developed and implemented within twelve months of coverage being granted under this permit. The SWPPP shall conform to the requirements of ADEQ's Industrial Stormwater General Permit in effect at the time coverage under this permit is granted.

3. *Decision process.* The permittee shall document the decision process for the development of a pollution prevention/good housekeeping program for municipal operations. The rationale statement shall address both the overall pollution prevention/good housekeeping program and the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:

- 3.1. The operation and maintenance program to prevent or reduce pollutant runoff from the municipal operations. The program shall specifically list the municipal operations that are impacted by this operation and maintenance program.  Yes  No

**Notes:**

- 3.2. Any government employee training program that will be used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. Describe any existing, available materials planned for use. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure.  Yes  No

**Notes:**

- 3.3. The program description shall specifically address the following areas:

- 3.3.1. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the MS4.  Yes  No
- 3.3.2. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates.  Yes  No
- 3.3.3. Procedures for the proper disposal of waste removed from the MS4 and the municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris.  Yes  No
- 3.3.4. Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices.  Yes  No

- 3.4. Who is responsible for overall management and implementation of the pollution prevention/good housekeeping program and, if different, who is responsible for each of the BMPs identified for this program.  Yes  No

**Notes:**


- 3.5. How will the MS4 evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs.  Yes  No

**Notes:**

4. *Performance Standards.* The pollution prevention/good housekeeping program shall include, at a minimum, an annual employee training for all eligible employees. An eligible employee is a new or veteran employee whose day-to-day work activities have the potential to impact stormwater quality. MS4s shall evaluate all current municipal-owned facilities to ensure that industrial general stormwater permit coverage (ARR000000), if needed, is obtained. This evaluation shall be included in the first annual report. Annual inspections for all municipal facilities not requiring industrial stormwater permit coverage are required for municipal facilities performing maintenance activities on mechanical equipment, facilities with fueling stations, facilities involved in waste storage, transfer or recycling, facilities with material stockpiles, and facilities storing fertilizers or pesticides. The operation and maintenance program shall include appropriate procedures, controls, maintenance schedules and recordkeeping to address Part 3.2.6.3.3 of this permit.

Stormwater Permit Route Sheet

LJ

Facility Name		City of Siloam Springs	
Permit Number		ARR040062	AFIN NO.* 88-015360
Assigned	Activity	Initials	Date
ASII	Application Logged/Assign Tracking Number/Place in red folder with appropriate route sheet and filing folders (1-day)	KB	12/14
Engineer	Completeness and Technical Review/Enter permit information into Database (3-days)	JJ	2/22
	Include map showing Environmentally Sensitive Waters (ERWs, ESWs, NSWs, potential losing streams, 303(d) listed streams, stream segments with an established TMDL, proposed rerouting of stream, mining site, or reclamation site)	JJ	2/22
ASIII	AFIN request (1-day)	KB	4/14
	Enter AFIN and other information into PDS and NPDES database prior to requesting invoice (same day)	KB	4/14
	Complete Invoice Request Form and submit Invoice Request (same day)	KB	4/14
Engineer Supervisor	Review all documents and perform technical review for the proposed project. (1-day)	BR	4/17
Planning Section		G	4/19
Engineer Supervisor	<p>Concern that it is going into Sager but no TMDL etc in place.</p> <p align="center">SE</p>	PLC	4/20/14
ASIII			
Engineer			
Engineer Supervisor			
Branch Manager			
Assistant Chief			
Engineer Supervisor			
Chief			
Engineer Supervisor			
ASIII			
ASII			

Comments: \_\_\_\_\_



CITY OF  
**Siloam Springs**  
*It's a natural.*

December 13, 2016

Mr. Robert E. Blanz, PhD, PE  
Arkansas Department of Environmental Quality  
Permits Branch, Office of Water Quality  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

RE: East Twin Springs Street Water Line Relocation  
Siloam Springs, AR

Dear Mr. Blanz:

In response to your letter dated June 21, 2016 the City of Siloam Springs is hereby submitting an application for coverage for storm water discharges under the MS4 General Permit. Please find attached to this correspondence a completed Notice of Intent (NOI), a Stormwater Management Program (SWMP) outline, a MS4 Map and a check for the \$200 application fee.

Thank you,

Justin Bland, P.E.  
City Engineer  
justin.bland@siloamsprings.com  
(479) 238-0944

Attachments: Notice of Intent  
Storm Water Management Plan  
MS4 Urbanized Area Maps  
Application Fee

**NOTICE OF INTENT  
FOR DISCHARGERS OF STORMWATER RUNOFF  
ASSOCIATED WITH REGULATED SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS  
AUTHORIZED UNDER NPDES GENERAL PERMIT ARR040000**

**I. PERMITTEE INFORMATION**

New  Renewal  (Permit Tracking Number ARR04 \_\_\_\_\_)

Regulated Small MS4 Name: City of Siloam Springs Owner Type:  
Mailing Address: P.O. Box 80  FEDERAL  STATE  
Actual Street Address: 400 N. Broadway  PUBLIC  OTHER  
City: Siloam Springs Urbanized Area \_\_\_\_\_  
State: AR Zip: 72761 County(ies): Benton

Enter the Latitude and Longitude of the approximate center of the Small MS4 (A map must be included.):

Small MS4 Latitude: 36 degrees 11 minutes 6 seconds  
Small MS4 Longitude: -94 degrees 32 minutes 27 seconds

**II. PERMITTEE CONTACT INFORMATION**

Name: Phillip Patterson Telephone: 479-524-5136  
Title: City Administrator Email Address: ppatterson@siloamsprings.com

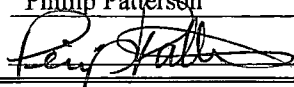
**III. INVOICE MAILING INFORMATION**

Invoice Contact Person: Justin Bland City: Siloam Springs  
Invoice Mailing Company: City of Siloam Springs State: AR Zip: 72761  
Invoice Mailing Address: P.O. Box 80 Telephone: 479-238-0944

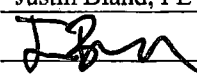
**IV. CERTIFICATION OF PERMITTEE (See Part 5.7 of the general permit)**

For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of Part VI.H of the general permit, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

"I certify that the cognizant official designated in this Notice of Intent is qualified to act as a dully authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed by the applicant. 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 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."

Responsible Official Printed Name: Phillip Patterson Title: City Administrator  
Responsible Official Signature:  Date: 11-30-14

**V. COGNIZANT OFFICIAL DESIGNATION (Optional)**

Cognizant Official Printed Name: Justin Bland, PE Title: City Engineer  
Cognizant Official Signature:  Date: 11-30-16  
Telephone 479-238-0944 Email justin.bland@siloamsprings.com

**VI. PERMIT REQUIREMENT VERIFICATION**

Submittal of Complete NOI?  Yes  No Submittal of MS4 map?  Yes  No  
Submittal of Complete Stormwater Management Program?  Yes  No

LJ

NOTICE OF INTENT  
FOR DISCHARGERS OF STORMWATER RUNOFF  
ASSOCIATED WITH REGULATED SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS  
AUTHORIZED UNDER NPDES GENERAL PERMIT ARR040000

I. PERMITTEE INFORMATION New  Renewal  (Permit Tracking Number ARR04\_\_\_\_\_)

Regulated Small MS4 Name: City of Siloam Springs Owner Type: \_\_\_\_\_  
Mailing Address: P.O. Box 80  FEDERAL  STATE  
Actual Street Address: 400 N. Broadway  PUBLIC  OTHER  
City: Siloam Springs Urbanized Area \_\_\_\_\_  
State: AR Zip: 72761 County(ies): Benton

Enter the Latitude and Longitude of the approximate center of the Small MS4 (A map must be included.):

Small MS4 Latitude: 36 degrees 11 minutes 6 seconds  
Small MS4 Longitude: -94 degrees 32 minutes 27 seconds

II. PERMITTEE CONTACT INFORMATION

Name: Phillip Patterson Telephone: 479-524-5136  
Title: City Administrator Email Address: ppatterson@siloamsprings.com

III. INVOICE MAILING INFORMATION

Invoice Contact Person: Justin Bland City: Siloam Springs  
Invoice Mailing Company: City of Siloam Springs State: AR Zip: 72761  
Invoice Mailing Address: P.O. Box 80 Telephone: 479-238-0944

IV. CERTIFICATION OF PERMITTEE (See Part 5.7 of the general permit)

For a municipality, State, Federal, or other public agency: By either a principal executive purposes of Part VI.H of the general permit, a principal executive officer of a Federal of the agency, or (ii) a senior executive officer having responsibility for the overall of agency (e.g., Regional Administrator of EPA).

"I certify that the cognizant official designated in this Notice of Intent is qualified to the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, reports signed by the applicant. I certify under penalty of law that this document direction or supervision in accordance with a system designed to assure that qualifie information submitted. Based on my inquiry of the person or persons who manage the for gathering the information submitted is, to the best of my knowledge and belief, t there are significant penalties for submitting false information, including the possi violations."

*unnamed tributary  
of sager creek,  
thence to sager  
creek*  
  
*2.25 miles from  
oklahoma*  
*Nitrate impairment  
from point  
sources*

Responsible Official Printed Name: Phillip Patterson Title: \_\_\_\_\_  
Responsible Official Signature: *Phillip Patterson* Date: \_\_\_\_\_

V. COGNIZANT OFFICIAL DESIGNATION (Optional)

Cognizant Official Printed Name: Justin Bland, PE Title: City Engineer  
Cognizant Official Signature: *Justin Bland* Date: 11-30-16  
Telephone 479-238-0944 Email justin.bland@siloamsprings.com

VI. PERMIT REQUIREMENT VERIFICATION

Submittal of Complete NOI?  Yes  No Submittal of MS4 map?  Yes  No  
Submittal of Complete Stormwater Management Program?  Yes  No



# STORM WATER MANAGEMENT PROGRAM



CITY OF  
**Siloam Springs**

## City of Siloam Springs, Arkansas

400 N. Broadway St.  
P.O.Box 80  
Siloam Springs, AR 72761

### Small Municipal Separate Storm Sewer Systems (MS4) Phase II MS4 Permit No. ARR040000

DECEMBER 2016

Prepared By:

City of Siloam Springs – Engineering Dept.  
400 N. Broadway St.  
P.O.Box 80  
Siloam Springs, AR 72761  
(479)524-5136

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## Acronyms

ADEQ	Arkansas Department of Environmental Quality
BMP	Best Management Practice
CWA	Clean Water Act
EPA	Environmental Protection Agency
MEP	Maximum Extent Practicable
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan

## **1. BACKGROUND AND CONTEXT**

The Siloam Springs' Storm Water Management Program (SWMP) has been developed to provide policy and management guidance for activities affecting stormwater throughout the City of Siloam Springs. It is intended to help fulfill certain State and Federal water quality requirements and to meet local water resources management objectives. With the implementation of the policies and management practices embodied in the SWMP, the City of Siloam Springs hopes to preserve urban stormwater quality which would otherwise negatively impact local rivers and streams, 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, Siloam Springs, as part of the Illinois River Watershed, 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.

## **2. DESCRIPTION OF THE PERMIT AREA**

The City of Siloam Springs (The City) currently serves a population of 15,039 people (2010) within the city limits. The geographic boundaries of the MS4 plan are the City limits and the service area for stormwater planning encompasses approximately 11.25 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 area includes Sager Creek and its tributaries as well as an assortment of un-named tributaries to the Illinois River which is south of the service area. 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 capacity. However, the City has never before had a SWMP intended to provide comprehensive stormwater management guidance for the City organization. In 2015, the City Council endorsed the proposed Stormwater Management and Drainage Manual by Ordinance No. 15-03. The goals in this manual have served as a guide for the City's efforts to develop this SWMP and other related water resource management efforts.

## **3. PURPOSE, SCOPE AND AREAS OF FOCUS**

The purposes of the SWMP are threefold. First, the SWMP 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 SWMP 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 SWMP 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.

The SWMP addresses stormwater quality management policies and management practices that are, and/or will be implemented in the City. The scope of the SWMP 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 SWMP include:

- **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, poor construction site management, and a variety of ways people dump pollutants into street gutters or catch basin.

- **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 downstream from the city limits, 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 into the ground. The City regulates these issues through implementation of the Siloam Springs Municipal Code and the Stormwater Management and Drainage Manual 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, as well as activities at City facilities, such as vehicle washing and maintenance, painting, and material handling. The Federal NPDES SWMP requires the City to implement pollution prevention practices that reduce or eliminate stormwater pollution from City activities
- **Public education geared toward broad community stewardship of water resources.** The Federal NPDES SWMP 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 SWMP. The long-term success of the City's efforts will hinge on increased awareness and stewardship throughout the community.  
The SWMP 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 Cooperative Extension Service.
- **Public awareness and involvement in the City's Stormwater Management Program.** Broad awareness and participation in the development and implementation of the SWMP by residents and local area businesses is a key component to ensure effectiveness of the SWMP. The SWMP includes a public involvement component in its development that meets the Federal NPDES program.
- **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.

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:

1. Public Education and Outreach on Stormwater Impacts;
2. Public Involvement/Participation;
3. Illicit Discharges Detection and Elimination;
4. Construction Site Stormwater Runoff Control;
5. Post-Construction Stormwater Management in New Development and Redevelopment; and
6. Pollution Prevention/Good Housekeeping for Municipal Operators.

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

- The structural and nonstructural 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 permittee's 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 permittee's SWMP.

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.

#### **4. OVERVIEW OF SILOAM SPRINGS'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 program includes approximately 11.25 square miles inside the Siloam Springs city limits.

#### **5. STORMWATER DRAINAGE BASIN CHARACTERIZATION**

The City's stormwater drainage system has two major drainage routes, Sager Creek and the Illinois River. 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 converge on a larger drainage way, ultimately culminating in outfalls to the major drainage way. The character and condition of the drainage way varies significantly throughout the basins, depending on surrounding land uses and contributing drainages.

## **6. 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 SWMP 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 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 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 ensure 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 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.d Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Control, to minimize or eliminate erosion and sedimentation in the stormwater drainage system.
- 1.e 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.f 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 AND SUB-SURFACE WATERS 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 and groundwater quality to, at a minimum, meet State water quality standards, adequately protect threatened and endangered wildlife, and meet 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 as necessary, 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.



- 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 City activities with potential to impact water quality and/or the functions of waterways, wetlands, and riparian areas.
- 3.e The City will 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 The City will 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 The City will 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: TO FURTHER CITIZENS, BUSINESSES, AND INDUSTRIES UNDERSTANDING OF 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 The City will continue to maintain enforcement and compliance activities, including inspections, technical assistance, and Code enforcement.
- 4.c The City will 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 The City will 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 to be caretakers for water features near them.

- 5.2 The City will, through its 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 SWMP will ultimately result in improved water quality and quantity management, improved habitat and resource protection, and, ultimately, enhance urban waterways as desirable community amenities.

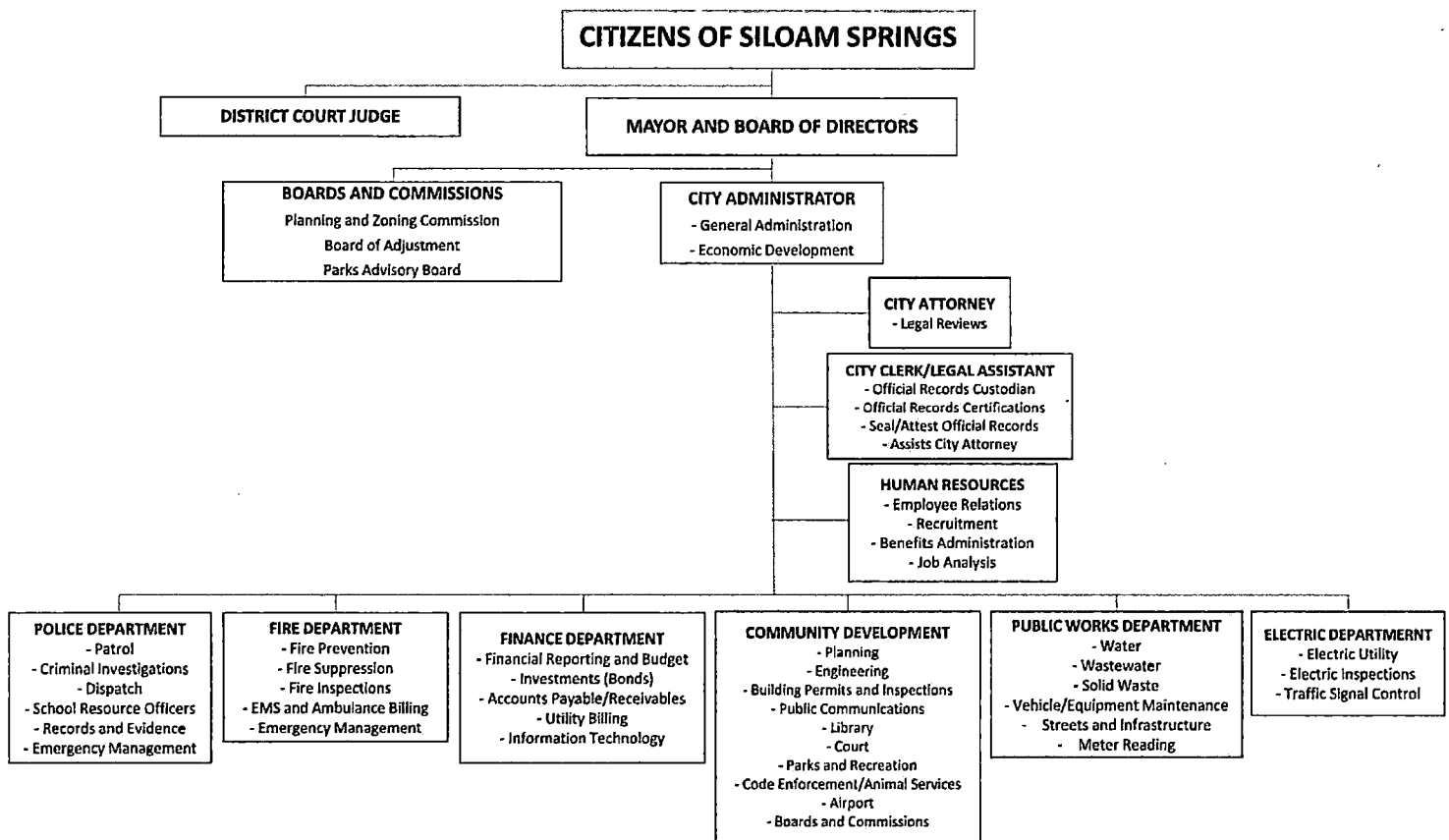
**7. SILOAM SPRINGS'S NPDES MS4 PROGRAM**

**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 the responsibility of the Building and Street 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 Police, Fire, Community Development, Public Works and Electric Departments. Each Department's task would be recognizing the 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. Negative findings will be enforced by various Departments of City Enforcement and the City Code of Ordinances.

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. However, the City recognizes their services are only partial coverage and the City is ultimately responsible for the control measures.

**City of Siloam Springs Organizational Chart**



#### **8. NPDES Phase II BMP Requirement**

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 fact sheets provide the following information in accordance with the Federal rules:

1. A list of the responsible parties for the BMP implementation;
2. A brief description of the BMP;
3. A description of existing conditions;
4. The proposed MS4 plan activities;
5. Measurable goals; and
6. 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 implementation schedule starting from January of 2017, which is when the City submitted its original MS4 permit application materials. Therefore, the BMP implementation schedule lays out a five-year schedule starting with fiscal year 2017.

## **A. MINIMUM CONTROL MEASURE #1 - PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

### **REGULATORY REQUIREMENTS**

*Regulation 40 CFR 122.34(b)(1): "The permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff."*

### **PUBLIC EDUCATION (PE) SELECTED BMPs**

- PE-1:** 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
- PE-2:** 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.
- PE-3:** 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.
- PE-4:** 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.

### **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 Northwest Arkansas Regional Planning Commission 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. There is also a great need to partner with various organizations to maximize the educational impact. Coordinating with other agencies like the Cities of Fayetteville, Rogers, Bentonville, 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. Siloam Springs 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. 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 at least 50% of the population of the MS4 areas to be reached.

The City of Siloam Springs participates in monthly meetings of the NWA Stormwater Compliance Group (SCG) and has representation on the NWA Regional Stormwater Education Steering Committee. They also have 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 issues, target audiences, program methods and public relations strategies.

It is important to note that due to the timing of Siloam Springs being designated as a MS4, the City is out of sync with the other regional MS4s. As such, the regional topics for 2020 and 2021 have not been identified. The City is proposing to amend the SWMP once these topics are finalized to maintain consistency with other MS4s in the region.

#### **RESPONSIBLE PARTIES**

The Northwest Arkansas Regional Planning Commission and the University of Arkansas Cooperative Extension Service has contracted with the City of Siloam Springs to be responsible for the development and implementation of the public education efforts.

#### **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 Siloam Springs and will not be mentioned here to save space, but will be described in detail on the annual report.

**MCM #1 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

BMP#	PERMIT YEAR				
	YR 2017	YR 2018	YR 2019	YR 2020	YR 2021
PE-1	Utilize SCG and education steering committee to plan outreach/education methods, measurable goals, and evaluate program impacts.				
	Continue meeting with the stormwater compliance group on a monthly basis to receive feedback on educational efforts and regional training needs.				
PE-2	Use multiple outreach methods to reach the general public highlighting season specific and media driven stormwater management and pollution prevention topics.				
PE-3	<i>Topic Emphasis:</i> Septic system and pool maintenance	<i>Topic Emphasis:</i> Litter/trash management	<i>Topic Emphasis:</i> Irrigation management to minimize runoff/disconnecting impervious surfaces	<i>Topic Emphasis:</i> To be determined	<i>Topic Emphasis:</i> To be determined
PE-3	<i>Target Audience:</i> Homeowners with septic systems/pools	<i>Target Audience:</i> General public, homeowners	<i>Target Audience:</i> Homeowners and business with irrigation systems and guttering	<i>Target Audience:</i> To be determined	<i>Target Audience:</i> To be determined
	<i>Rationale:</i> Malfunctioning septic systems, improper handling and disposal of pool chemicals and emptying chlorinated pool water can impact stormwater quality	<i>Rationale:</i> Improper handling and disposal of litter can allow it to enter the storm drain system and impact stormwater quality	<i>Rationale:</i> Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing filtration	<i>Rationale:</i> To be determined	<i>Rationale:</i> To be determined
PE-4	Conduct hands-on activities with youth through school enrichment, library, and camp programs				

## **B. MINIMUM CONTROL MEASURE #2 – PUBLIC INVOLVEMENT/PARTICIPATION**

### **REGULATORY REQUIREMENTS**

*Regulation 40 CFR 122.34(b)(2):* The permittee shall, at a minimum, comply with State and local public notice requirements when implementing a public involvement/ participation program.

### **PUBLIC INVOLVMENT (PI) SELECTED BMPs**

- PI-1:** 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.
- PI-2:** 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, Lake Smart Leaders, etc.)
- PI-3:** 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.).

### **RATIONALE**

The City selected the above four BMPs to address the Public Involvement/Participation Minimum Control Measure #2 and complement its public education efforts. The City 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 PI-1, PI-2 & PI-3. Components of this program will include organizing citizen participation in periodic creek cleanup efforts, storm drain stenciling, or assisting with educational or interpretive events.

It is important to note that due to the timing of Siloam Springs being designated as a MS4, the City is out of sync with the other regional MS4s. As such, the regional topics for 2020 and 2021 have not been identified. The City is proposing to amend the SWMP once these topics are finalized to maintain consistency with other MS4s in the region.

### **RESPONSIBLE PARTIES**

The Community Development Department is responsible for the development and implementation of the public involvement and participation efforts, utilizing the services of the University of Arkansas Cooperative Extension Service (contracted through the Northwest Arkansas Regional Planning Commission).

### **SUMMARY OF MEASURABLE GOALS**

The City will provide opportunities for public input on the stormwater management program on an annual basis in various forms, including surveys and/or public events. Additionally, the administration will be periodically updated on the stormwater plan and efforts to meet State water quality standards. Feedback from the administration on annual progress will guide modifications to the stormwater plan as appropriate. The City will track these activities on an annual basis. In addition, the University of Arkansas Cooperative Extension Service will utilize Master Gardeners and community volunteers for creek clean-ups, storm drain stenciling, and assisting with PE-2 and PE-3 programs.



**MCM #2 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

<b>BMP#</b>	<b>PERMIT YEAR</b>				
	<b>YR 2013</b>				
<b>PI-1</b>	Identify and implement public involvement activities in implementing stormwater policies, implementation actions and BMPs.				
	Incorporate stormwater pollution prevention into annual Master Gardener training and use trained volunteers for further public outreach and education programs for PE1, PE-2 and PE-3.				
	<i>Program Emphasis:</i> Partner with POAs, Health Department and watershed organizations to promote proper septic system function through inspections and regular pumping	<i>Program Emphasis:</i> Coordinate clean up events (potential locations: creek, lake, park, trail or roadway)	<i>Program Emphasis:</i> Partner with the Arkansas Irrigation Association to promote proper irrigation system use/maintenance	<i>Program Emphasis:</i> To be determined	<i>Program Emphasis:</i> To be determined
	<i>Target Audience:</i> Homeowners with septic systems of swimming pools	<i>Target Audience:</i> MS4 residents	<i>Target Audience:</i> Homeowners and businesses with irrigation systems	<i>Target Audience:</i> To be determined	<i>Target Audience:</i> To be determined
	<i>Rationale:</i> Malfunctioning septic systems, improper handling and disposal of pool chemicals and emptying chlorinated pool water can impact stormwater quality	<i>Rationale:</i> Improper handling and disposal of litter can allow it to enter the storm drain system and impact stormwater quality	<i>Rationale:</i> Efficient irrigation conserves water and prevents it from entering storm drain systems	<i>Rationale:</i> To be determined	<i>Rationale:</i> To be determined

## **C. MINIMUM CONTROL MEASURE #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION**

### **REGULATORY REQUIREMENTS**

*Regulation 40 CFR 122.34(b)(3): The permittee must:*

- 1. Develop, implement and enforce a program to detect and eliminate illicit discharges [as defined at 40 CFR 122.26(b)(2)] into the permittee's small MS4.*
- 2. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;*
- 3. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and action. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance;*
- 4. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the permittee's system;*
- 5. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;*
- 6. Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition).*
- 7. The permittee must also develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes) that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, either because of the nature of the discharges or conditions the permittee have established for allowing these discharges to the permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs on the wash water). The permittee must document in the permittee's storm water management program plan any local controls or conditions placed on the discharges. The permittee must include a provision prohibiting any individual non-storm water discharge that is determined to be contributing substantial amounts of pollutants to the permittee's MS4.*
- 8. The permittee must develop a process to respond to and document complaints relating to illicit discharges.*

### **ILLICIT DISCHARGE (IDDE) SELECTED BMPs**

**IDDE-1:** Illicit Discharges Reporting and Tracking System

**IDDE-2:** Illicit Discharges Response and Enforcement

**IDDE-3:** Citywide Illicit Discharge Detection and Elimination

**IDDE-4:** Non-Stormwater Discharge Assessment

**IDDE-5:** Storm Sewer Inventory and Mapping

### **RATIONALE**

Siloam Springs has selected the above five BMPs to address MCM #3. BMPs IDDE-1 and IDDE-2 describe the City's processes that respond to and document complaints regarding water quality, including illicit discharges, in fulfillment of Requirements 1, 3 and 8 above. BMP IDDE-1 will provide methods for reporting and tracking of presumed illicit spills, sightings and discharges. Most of the City department's personnel, while doing their daily jobs, will report potential illicit problem areas to the Community Development Department. In addition, the public will have the opportunity to report potential illicit problem areas to City Hall. The reported problem area will be investigated soon or immediately depending on the situation. The public phone calls received and the reports submitted by City personnel will be tracked with Illicit Complaint files. BMP IDDE-2 will provide methods for the response to reported potential illicit discharges and any necessary enforcement. Minor infractions will be brought to the owner's attention, followed up on, and a complete investigation report will be included in the Illicit Complaint files with pictures and the investigation results. Larger incidents within water bodies (such as fish kills with unknown circumstances) will be reported to the State Fish and Wildlife and/or the ADEQ for their expertise and water quality measurement capabilities. These two BMPs include a phone number for complaints and protocols for the most efficient and effective follow-up actions in response to calls. BMP IDDE-2 will be enforced, as necessary, with the use of the City Code of Ordinances.

BMP IDDE-3 consists of a comprehensive program to detect and eliminate illicit discharges throughout the City and addresses Requirement 4. This will include performing dry inspections of approximately 20% of the storm sewer outfalls per year over the next five years. This BMP will be implemented in conjunction with BMP IDDE-5 which will provide an inventory of all outfalls within City limits. Any outfalls which are discovered to have potential illicit discharges will be investigated as described in BMP IDDE-2.

Requirement 5 to inform the public regarding the hazards of illicit discharges is implemented through several of the public education BMPs such as Clean Water In to Storm Curb Drain and Door Hangers.

Requirements 6 and 7, addressing non-stormwater discharges, will require that the City assess these 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 or developed and implemented with BMP IDDE-4.

Requirement 8 is covered by public knowledge of phone numbers of City Hall and Police Dispatch. Complaints phoned in regarding an incident are forwarded to the appropriate City personnel that can address the particular type of situation. Several of the public education BMPs as well as IDDE-1 will also help educate the public about illicit discharges and provide the phone numbers to report them to.

BMP IDDE-5 will meet Requirement 2 above by completing the mapping and inventory of the City's storm sewer system including all outfalls. This map will be updated with any new storm sewer systems and/or outfalls that are created through development.

### **RESPONSIBLE PARTIES**

**Community Development Department** - Coordinate Management and Implementation of the IDDE Control Measures, respond and investigate citizen complaints and tips, assess and enforce as necessary.

**Public Works Department**- Recognize illicit discharges and trash at areas within the City and take appropriate action.

**Police** – Respond to accidental illicit discharges (car accidents or other spills on or near public streets and public places). Report discharge to appropriate department for enforcement/cleanup.

**Fire-** Respond to accidental illicit discharges (car accidents or other spills on or near public streets and public places). Report discharge to appropriate department for enforcement/cleanup.

**SUMMARY OF MEASURABLE GOALS**

The measurable goals of the illicit discharges program will include:

1. Monitor the number and document the type of calls received and the actions taken in response each year.
2. Create storm sewer maps for areas within city limits. Document an annual review of maps to ensure they are up-to-date.
3. Monitor the number of illicit discharges that are encountered and document enforcement procedures that are conducted.
4. Track the number of commercial/industrial uses assessed for possible illicit discharges and document resolution of illicit discharges identified.
5. Complete an assessment of non-stormwater discharges as required by Minimum Control Measure #3, Requirement 6 and 7, along with implementing local controls where they are identified as being needed.

**MCM #3 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

BMP#	PERMIT YEAR				
	YR 2017	18	19	20	21
IDDE-1	Operate, publish and promote phone number and email, and document calls received each year within Illicit Discharge file.	Implement program improvements as warranted.	Monitor and revise as necessary		
2	Implement protocols for responding to complaints annually, and document within Illicit Discharge file.	Monitor and revise as necessary			
3	Conduct dry inspections of existing outfalls, covering 20% of the total number. Identify and inspect new outfalls as they are constructed or found. Add new inlets & outfalls to storm sewer maps	Conduct dry inspections of existing outfalls, covering an additional 20% each year until all are inspected by the end of the permit. Identify and inspect new outfalls as they are constructed or found. Add new outfalls to storm sewer maps. Add last year's developments or revisions as additions to storm sewer maps for each year's update.			
4	Assess impact of non-stormwater discharges. If impact is significant create & implement program to address	Continue ongoing program assessment, implementation and revisions.			
5	Inventory existing storm sewer maps. Update per inspections required for IDDE-3	Verify outfalls and update storm sewer map per inspections required for IDDE-3.			

## **D. MINIMUM CONTROL MEASURE #4 - CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

### **REGULATORY REQUIREMENTS**

Regulation 40 CFR 122.34(b)(4):

*The permittee shall develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. For stormwater discharges associated with small construction activity in accordance with 40 CFR 122.26(b)(15)(i), the permittee will develop, implement, and enforce a program to reduce pollutant discharges from such sites. The permittee's program must include the development and implementation of, at a minimum:*

- 1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;*
- 2. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;*
- 3. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;*
- 4. Procedures for site plan review which incorporate consideration of potential water quality impacts;*
- 5. Procedures for receipt and consideration of information submitted by the public, and*
- 6. Procedures for site inspection and enforcement of control measures.*

### **CONSTRUCTION SITE WASTE (CSW) SELECTED BMPs**

**CSW-1:** Erosion and Sediment Control Regulations

**CSW-2:** City Staff Erosion Control Training

**CSW-3:** Land Drainage Program

**CSW-4:** Inspections and Enforcement

### **RATIONALE**

The City selected the above BMPs to address each component of the construction site runoff minimum control measures. The regulatory authority for BMP CSW-1 is currently provided for in the Stormwater Management and Drainage Manual which was approved by Ordinance No. 15-03. This ordinance helps to satisfy Requirements 1, 2 and 3 by providing regulatory authority for implementation and enforcement of the erosion and sediment control measures for construction or redevelopment of sites disturbing greater than one acre.

Specific requirements for construction site operators are addressed during the development approval process as well as the issuance of Building Permits. The Stormwater Management and Drainage Manual requires the development of erosion and sediment control plans and will be updated to include future regulatory requirements. Chapters 54 and 87 of the Municipal Code detail the procedures for development approval including Technical Plan Review. Taken together, these adopted Codes and programs fulfill Requirements 1 through 4 described above.

BMP CSW-2 involves the training of City staff to recognize and correct erosion problems on construction sites and to enforce the provisions of the City's adopted ordinances. This BMP is a critical component of the stormwater management program. This is being addressed through the development of specific, dedicated staff for permitting, inspections, enforcement and the implementation of the City Stormwater Pollution Prevention Team. This program is ongoing, and is intended to address Requirement 6.

Currently, staff from the Community Development Department have received certification as "Stormwater Site Inspectors" and are fulfilling these roles within the organization.

During the development approval process, BMP CSW-3 will be implemented by the systematic review of plans with the use of checklists and/or other methods to ensure that the Drainage and Development Ordinance and all ADEQ requirements have been met. These checklists will ensure that minimum control measures such as construction entrances, concrete washouts, silt fence and others are included in the plans. The long term stability of storm water improvements will also analyzed during plan review.

After construction has started, BMP CSW-4 will be implemented with the initiation of regular site inspections by certified City personnel. These inspections will be documented, as well as any violations that are observed. If necessary, the City Code of Ordinances will be used for any enforcement actions.

Requirement 5 is covered by public knowledge of phone numbers of City Hall and Police Dispatch. Complaints phoned in regarding an incident are forwarded to the appropriate City personnel that can address the particular type of situation. Several of the public education BMPs will help educate the public about illicit discharges and provide the phone numbers to report them to.

#### **RESPONSIBLE PARTIES**

The Community Development Department maintains the City Code of Ordinances related to construction, coordinate the Site Plan Review process and coordinate the construction site inspections. Enforcement of these sections of the City's Code is conducted in coordination with the Office of the City Attorney, if necessary.

#### **SUMMARY OF MEASURABLE GOALS**

Staff will review the Municipal Code provisions related to erosion control and construction site runoff during the permit period and revise as necessary. The measurement of success of the program will be based on tracking of compliance and avoidance of impacts to water quality from land alteration and construction.

**MCM #4 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

BMP#	PERMIT YEAR				
	YR 2017	YR 2018	YR 2019	YR 2020	YR 2017
<b>RC-1</b>	Review existing Drainage Regulation and Development Code sections for erosion and construction site runoff control effectiveness	Review, modify and enforce provisions as necessary.			
<b>RC-2</b>	Conduct staff training on an ongoing basis; update as needed.		Evaluate the effectiveness of the training and update/improve as warranted.		
<b>RC-3</b>	Implement the land drainage and alteration program on an ongoing basis.	Conduct land drainage and alteration program training as needed.	Track land drainage and alteration compliance and impacts to water quality on an annual basis.	Evaluate Municipal Code and amend as needed to achieve compliance with CWA and ESA.	Program review and assessment.
<b>RC-4</b>	Conduct inspections on an ongoing basis.	Implement existing Code authority on an ongoing basis.	Review and amend the Code as appropriate.		



## **E. MINIMUM CONTROL MEASURE #5 - POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

### **REGULATORY REQUIREMENTS**

*Regulation 40 CFR 122.34(b)(5): The permittee must:*

- A. Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts;*
- B. Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the community;*
- C. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law; and*
- D. Ensure adequate long-term operation and maintenance of BMPs.*

### **DEVELOPMENT STANDARD (DS) SELECTED BMPs**

**DS-1:** Implementation of City Code of Ordinances and Development of BMP Manual

**DS-2:** Post Construction Stormwater System Maintenance Inspections and Compliance

### **RATIONALE**

The City selected the above BMPs to meet the post-construction Minimum Control Measure requirements. The City's Stormwater Management and Drainage Manual requires that new developments incorporate stormwater management BMPs to reduce the impacts associated with stormwater runoff generated at the site. BMP DS-1 provides for maintenance of the appropriate section of municipal code 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. In addition, the City will develop a BMP Manual which details available BMPs and indicates the best place for their use.

BMP DS-2 provides for the development of a long-term inspection and enforcement program, which is still needed to meet all the requirements noted above. Staff from the Community Services Department have received certification as "Stormwater Site Inspectors." They are currently performing the stormwater inspections and will continue to perform Post-Construction System Maintenance Inspections to ensure compliance.

### **RESPONSIBLE PARTIES**

Community Development Department

### **SUMMARY OF MEASURABLE GOALS**

The regulatory framework for control of post-construction stormwater runoff is contained in the City's Code of Ordinances. This framework will be refined and 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 quality management;
2. Monitor Stormwater Pollution Plans for adequacy of stormwater quality management;
3. Monitor compliance achieved in private maintenance of Stormwater management systems required in the development approval process; and

4. Monitor as needed any new stormwater drainage infrastructure that incorporates stormwater quality improvement facilities where practicable.

**MCM #5 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

BMP#	PERMIT YEAR				
	YR 2017	YR 2018	YR 2019	YR 2020	YR 2021
<b>DS-1</b>	Review Codes and propose amendments as appropriate. Seek City Council approval & adoption of amendments. Develop BMP Manual and amend as needed.	Continue enforcing existing Codes and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.			
<b>DS-2</b>	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			

## **F. MINIMUM CONTROL MEASURE #6 - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

### **REGULATORY REQUIREMENTS**

Regulation 40 CFR 122.34(b)(6): The permittee must:

- A. *Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and*
- B. *Using training materials that are available from EPA, ADEQ, other organizations, or developed in-house, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.*

### **OPERATION AND MAINTENANCE (OM) BMPs**

**OM-1:** Operation and maintenance program that includes a training component

**OM-2:** 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.

### **RATIONALE**

As part of the contract with Northwest Arkansas Regional Planning Commission 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 provided by ExCal Visuals and others that include information on construction sites, park & open space maintenance, and fleet & building maintenance. This training will be used to implement operation and maintenance programs for City facilities and specific operations. These policies will be reviewed annually to ensure that no adjustments need to be made. 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 "eye 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 employees are also addressed during the regional stormwater compliance committee's monthly meetings and these recommendations help to shape the educational outreach messages.

In addition, City personnel will participate in the occasional MS4 orientated webinars offered by the EPA.

### **RESPONSIBLE PARTIES**

The University of Arkansas Cooperative Extension is responsible for preparing and providing training to City staff. Each City Department (Fire, Police, Building, etc.) is responsible for applying the training in the field and reporting illicit discharges.

### **SUMMARY OF MEASURABLE GOALS**







Operation and maintenance policies which are implemented will be evaluated and reported annually. In addition, the number of employee training programs given each year will be reported along with the number of employees participating.

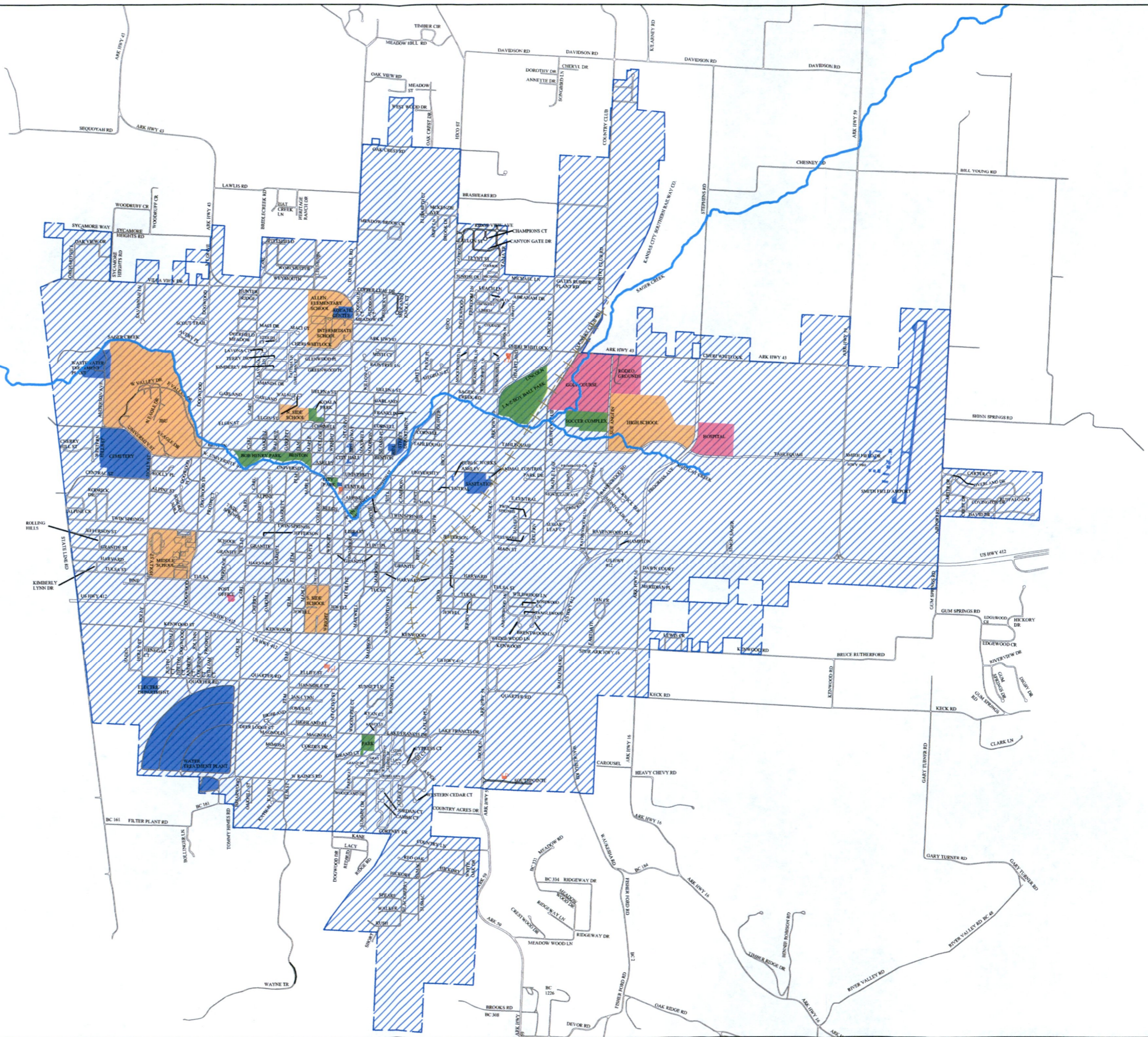
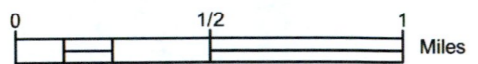
**MCM #6 DEVELOPMENT/IMPLEMENTATION SCHEDULE SUMMARY**

BMP#	PERMIT YEAR				
	YR 2017	YR 2018	YR 2019	YR 2020	YR 2021
OM-1	Obtain training DVD's	Review and update materials	Review and update materials	Review and update materials	Review and update materials
	Develop and implement good housekeeping policies for City activities and facilities	Review and revise policies as appropriate	Review and revise policies as appropriate	Review and revise policies as appropriate	Review and revise policies as appropriate
OM-2	Conduct annual training for employees.	Conduct training as necessary for new hires.	Conduct annual training for employees.	Conduct training as necessary for new hires.	Conduct annual training for employees.



# CITY OF SILOAM SPRINGS

LEGEND	
CITY FACILITY	
FIRE/POLICE DEPT.	
LANDMARK	
PARK	
SCHOOL	
CITY LIMITS	





JUSTIN BLAND  
PO BOX 80  
SILOAM SPRINGS, AR 72761

ARKANSAS DEPT. OF ENV. QUALITY  
ATTN: Robert Blanz  
Permits Branch, Office of Water Quality  
5301 NORTH SHORE DR.  
NORTH LITTLE ROCK, AR 72118-5317

Pull to open



RT 177  
ST 20  
3 15:00 A  
8505  
12.15

FedEx  
TRK# 0215 8035 6824 8505  
THU - 15 DEC AA  
STANDARD OVERNIGHT  
X2 LITA  
72118  
AR-US  
LIT  
FID 392591 14DEC16 FYVA 539C1/D42F/8EBA

00028  
00052

FedEx Package Express US Airbill

FedEx Tracking Number 8035 6824 8505

1 From  
Date

Sender's Name  
Phone 479 524-5124

Company CITY OF SILOAM SPRINGS

Address 400 N BROADWAY ST

City SILOAM SPRINGS State AR ZIP 72761-2711

2 Your Internal Billing Reference

3 To Recipient's Name  
Phone

Company

Address  
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address  
Use this line for the HOLD location address or for continuation of your shipping address.

City State AR ZIP 72711-3117

HOLD Weekday  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.  
HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.



8035 6824 8505

fedex.com 1.800.GoFedEx 1.800.463.3339

Form ID No. 0215

4 Express Package Service \*To most locations.  
NOTE: Service order has changed. Please select carefully.  
Packages up to 150 lbs.  
For packages over 150 lbs., use the  
FedEx Express Freight US Airbill.

Next Business Day  
 FedEx First Overnight  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Priority Overnight  
Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Standard Overnight  
Next business afternoon.\* Saturday Delivery NOT available.

2 or 3 Business Days:  
 FedEx 2Day A.M.  
Second business morning.\* Saturday Delivery NOT available.  
 FedEx 2Day  
Second business afternoon.\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Express Saver  
Third business day.\* Saturday Delivery NOT available.

5 Packaging \*Declared value limit \$500.  
 FedEx Envelope\*  FedEx Pak\*  FedEx Box  FedEx Tube  Other

6 Special Handling and Delivery Signature Options  
 SATURDAY Delivery  
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.  
 No Signature Required  
Package may be left without obtaining a signature for delivery.  
 Direct Signature  
Someone at recipient's address may sign for delivery. Fee applies.  
 Indirect Signature  
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?  
One box must be checked.  
 No  Yes  
As per attached Shipper's Declaration.  Yes  
Shipper's Declaration not required.  Dry Ice  
Dry Ice, 9, UN 1845 \_\_\_\_\_ x \_\_\_\_\_ kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.  Cargo Aircraft Only

7 Payment Bill to:  
Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.   
 Sender Acct. No. in Section 1 will be billed.  Recipient  Third Party  Credit Card  Cash/Check  
Total Packages Total Weight  
Credit Card Auth.

\*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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