

Recertification Notice of Intent (NOI)

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

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

Permittee Name	Permit Tracking Number	AFIN
City of Johnson	ARR040038	88-00862

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

	Current Information in ADEQ's database	Corrections/Additions, If Needed
Small MS4 Physical Address	2904 Main Drive	
County	Washington	
Urbanized/Core Areas	Fayetteville-Springdale-Rogers	
Receiving Stream	Mudd Creek, Little Sandy Creek, Clear Creek, Illinois River	Clear Creek, Scull Creek, & Mud Creek
Ultimate Receiving Stream	White River	Arkansas River
Contact Person & Title	Steve Hesse, Stormwater Coordinator	James Geurtz, PE & Stormwater Coordinator
Telephone Number	(479) 756-1266	
Cognizant Official & Title	Chris Keeney, Mayor	
Responsible Official & Title	Chris Keeney, Mayor	

Are the mailing and invoice addresses the same?

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

Additional Comments: _____

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

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

Responsible Official Name: Chris Keeney
 Responsible Official Title: Mayor
 Responsible Official Signature: [Signature]
 Date: 6-30-19

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

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

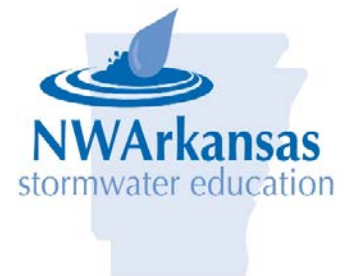


STORMWATER MANAGEMENT PROGRAM (SWMP)

Johnson, Arkansas

2019-2024

Permit # ARR 040038
AFIN# 88-00862



CREATED IN PARTNERSHIP WITH THE
BENTON AND WASHINGTON COUNTY
COOPERATIVE EXTENSION SERVICES.

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Background and Context

The City of Johnson's Stormwater Management Program was developed to provide Ordinances and management guidance for activities affecting stormwater throughout the City. It is intended to help the City fulfill certain State and Federal water quality requirements, and to meet local water resource management objectives. Over time, through the implementation of the policies and management practices embodied in the Stormwater Program, Johnson hopes to prevent urban stormwater quality from negatively impacting local rivers and streams and hopes to develop and preserve the urban drainage infrastructure in a manner that meets the community's future needs.

State and Federal regulatory programs place significant emphasis on improving water quality and the health of Arkansas's watersheds. Through its code and enforcement actions, Johnson emphasizes the importance of local resource management of urban stormwater and waterway resources. It is important that the City manage these resources in a manner that minimizes destructive long-term impacts to drainage infrastructure and the natural features that help protect water quality and control flooding.

Permit Explained:

The Clean Water Act (CWA) prohibits the discharging of pollutants through point sources into Waters of the United States unless the entity has a National Pollution Discharge Elimination System (NPDES) permit to discharge. Arkansas, in order to meet the requirements of the CWA, is granted General Permit Number AR40000. This document grants "Authorization to Discharge Under the National Pollutant Discharge Elimination System and the Arkansas Water and Air Pollution Control Act." However, each entity required to be permitted in order to discharge must be issued a Permit Tracking Number and an AFIN number. Johnson's Permit Tracking Number is ARRO40017 and it's AFIN is 88-00836. These two numbers are used to specifically identify the City of Johnson; they should be used on all correspondence with the EPA or ADEQ.

There were two phases of the EPA's stormwater program under the CWA. Phase I occurred in 1990 and addressed NPDES permit coverages of stormwater runoff from medium and large municipal MS4s serving populations of 100,000 or greater and construction activity disturbing 5 acres or greater and 10 categories of industrial activity.

Phase II took place in 1999 and expanded the NPDES program by requiring MS4 in *urbanized areas* (as defined by the U.S. Census Bureau-definition), public universities, and operators of small construction sites of 1 acre and larger to meet the NPDES permit requirements.

Further information regarding the above can be found in the following EPA fact sheets:

United States. Environmental Protection Agency. *Stormwater Phase II Final Rule* EPA 833-F-00-001. January 2000 (revised December 2005). Fact Sheet 1.0. <https://www.epa.gov/sites/production/files/2015-11/documents/fact1-0.pdf>

United States. Environmental Protection Agency. *Stormwater Phase II Final Rule. Who's Covered? Designation and Waivers of Regulated Small MS4s*. EPA 833-F-00-003 January 2000 (revised June 2012) Fact Sheet 2.1. <https://www.epa.gov/sites/production/files/2015-11/documents/fact2-1.pdf>

United States. Environmental Protection Agency. *Stormwater Phase II Final Rule, Urbanized Areas: Definition and Description*. EPA 833-F-00-003 revised June 2012. Fact Sheet 2.2. <https://www.epa.gov/sites/production/files/2015-11/documents/fact2-2.pdf>

Overview and Description of the City’s Stormwater Drainage Systems:

Johnson is situated in Washington County, Arkansas and is partially located within the Springdale-Rogers, AR-MO’s 2010 Census’s designated Urbanized Area (hereinafter referred to as the Urbanized Area). The City of Johnson is responsible for implementing surface water management activities within public City-owned lands in their Urbanized Area. This includes the planning, design, construction, operation, and maintenance of the stormwater drainage system. The City performs all operation and maintenance on the public drainage system designed and constructed to the City’s standards and located within easements or rights-of-way, or real property that has been conveyed or dedicated to the City, within their Urbanized Area. The City also maintains open channels and public outfalls to natural streams within their Urbanized Area. Therefore, the MS4 NPDES permit for which this MS4 program is submitted covers only the area within Johnson’s Urbanized Area.

Watersheds / Stormwater Drainage Basins:

A watershed can be described as a geographic area that captures rainfall and other precipitation from many small systems converging on a larger drainage way. Johnson is fully contained in one 8-Digit Hydrologic Unit Code (HUC) watershed - the Illinois Watershed. Johnson Branch, Goose Creek, Owl Creek, and various unnamed tributaries of the Illinois River carry stormwater through Johnson to the Illinois River.

The Illinois Watershed contains the following 10 and 12-Digit HUC watersheds:

- Clear Creek-Illinois River Watershed (10-Digit HUC)
- Lake Fayetteville-Clear Creek Watershed (12-Digit HUC)
- Hamestring Creek (12-Digit HUC) (note that this comprises a very small part of Johnson to the south).
- Mud Creek-Clear Creek (12-Digit HUC) (note that this comprises a very small part of Johnson to the south).

Total Maximum Daily Loads (TMDL)

Clear Creek is a stream that flows through the cities of Springdale, Fayetteville, Johnson, and through a non-city portion of Washington County. This creek has a TMDL for pathogen impairment. The City of Johnson considers this a non-point source pollutant. The Draft 2018 report shows Clear Creek to be a Category 1(b). Category 1(b) streams are defined as: “Attaining all water quality criteria and supporting all designated uses; however, a TMDL remains in place for one or more constituents.” The watershed for Clear Creek consists of 35.6 miles; the City of Johnson constitutes, as of 2019, approximately 3.64 square miles. Therefore, approximately 10% of the watershed is located within Johnson’s city limits.

Purpose and Scope:

Purposes:

There are three purposes of the Stormwater Plan (SWMP), as follows:

- 1- The Stormwater Program catalogs the City's entire stormwater drainage system (both the open and piped systems), its connections to streams, and the overall condition of the system. This cataloging is necessary to address relevant State and Federal regulatory requirements, provides baseline information on which to develop focused stormwater management strategies, provides a map and system for tracking pollutants back to their source, and provides a scheduled observance program for observing any maintenance needs of the stormwater system.
- 2- The Stormwater Program is used to establish goals, policies, and implementation actions that will achieve Johnson's long-term objectives in a way that is understandable to the public, usable by City staff, and that meets regulatory needs.
- 3 - The Stormwater Program establishes a means for measuring, reporting, and adaptively managing the City's water resources by presenting benchmarks that will ensure meaningful progress, as well as ensuring compliance with applicable laws and permit requirements.

Scope:

The scope of the Stormwater Program is determined primarily by the Federal NPDES Permit requirements and to address local water resource issues as well. The rules and regulations specified in this SWMP are designed to reduce pollutant discharges, to protect water quality, and to satisfy the appropriate water quality requirements and the Clean Water Act. The stormwater program ensures that stormwater quality management policies and management practices will be implemented by the City.

Areas of Focus in the Stormwater Program:

Public education geared toward broad community stewardship of water resources. The Federal NPDES Stormwater Program places significant emphasis on public education as part of the long-term solution to stormwater pollution. As such, education is a required element of the Stormwater Program. The long-term success of Johnson's efforts will hinge on increased awareness and stewardship throughout the community. The Stormwater Program will result in formal, organized, educational and outreach efforts targeted broadly throughout the metropolitan area. Many of these efforts are most effectively approached on a broad 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 Stormwater Program by residents and local area businesses is a key component to ensure effectiveness of the Stormwater Program. The Stormwater Program includes a public involvement component in its development that meets the Federal NPDES program.

Detection and elimination of 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 basins.

On-site management of stormwater to reduce the quantity of stormwater and pollution entering the drainage system. Similar to illicit discharges, events that cause flooding, system surcharges, or ongoing pollutant loading, can occur downstream from the City's Urbanized Area and originate from a variety of causes. These include inadequacies in the type and design of infrastructure, inadequate maintenance, and insufficient erosion and/or sediment control practices. The City regulates these issues through implementation of their City ordinances.

Reduction and prevention of pollution from City facilities and from City activities and business practices. Johnson provides services with a potential of creating water pollution, erosion, and sedimentation. These include field activities such as ditch cleaning and excavation/maintenance activities, vehicle washing and maintenance, painting, and material handling (such as street sweeper dumping and processing). The Federal NPDES Stormwater Program requires the City to implement pollution prevention practices that reduce or eliminate stormwater pollution from City activities. Beyond this regulatory motivation, it is important that Johnson lead by example in areas where similar practices and behaviors from citizens and businesses are required.

Maintain knowledge of the City's stormwater plan. Johnson maintains a map of their stormwater system. This plan will be updated periodically to maintain a masterplan for tracking pollutants. Dry Weather Screenings will be conducted based off this map in order to maintain knowledge of the general health of the City's Stormwater System.

Goals, Policies, & Implementation Actions:

In order to aid development of its MS4 program, Johnson created a list of needed policies to explain how those policies would be implemented. The following section provides overall guidance in performing stormwater management activities in a manner consistent with State and Federal laws, while meeting local goals and the long-term SWMP outcomes the City hopes to achieve.

The following goals are derived from reviewed, long-term, key outcomes, while the following policies provide specific direction consistent with the stated goals and State and Federal requirements. Implementation actions include BMPs discussed in detail in the MS4 program and actions needed to achieve local objectives.

Goal 1: Protect citizen's property from flooding.

Policies:

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

Implementation Actions:

1. Continue evaluation of the City's maintenance practices and implement appropriate BMPs to ensure that Johnson adequately maintains the stormwater drainage system capacity in an environmentally responsible manner.
2. Evaluate and refine Johnson's drainage program, including educational outreach, inspection, and enforcement components to reduce the negative stormwater impacts from land alteration, erosion, sedimentation, and excessive runoff.
3. Continue adding to the City's Drainage Master Plan to assess its stormwater drainage system and capacity needs and identify capital improvements and other measures necessary to maintain adequate system capacity for planned community growth.

4. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize or eliminate erosion and sedimentation in the stormwater drainage system.
5. 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

- A. Through the development review process, Johnson will ensure that development is protective of significant open waterways, wetlands, and riparian areas.
- B. Johnson 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. Education is handled by the University of Arkansas' Cooperative Extension Service.

Implementation Actions

1. If needed, the City will review and refine as needed its existing drainage program, which addresses erosion, sedimentation, and the impacts of land alteration, including permitting, inspections.
2. The City will review development proposals for impacts on open drainage ways and will protect the functions and benefits of these areas as provided for in the Municipal Code and Ordinances.
3. The City will work cooperatively with citizens, businesses, and agencies to protect and improve surface waterways, further enhance educational opportunities, and continue participation in intergovernmental work groups.
4. The City will implement and continue to refine/improve BMP requirements for all activities with potential to impact water quality and/or the functions of waterways, wetlands, and riparian areas.
5. 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.
6. 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.
7. 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 3: Preserve and maintain surface waters, wetlands, and riparian areas.

Policies

- A. Johnson 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.
- B. Johnson will continue to develop, implement, and enforce appropriate building, design, and policies to address water quality compliance issues, including pollution and habitat, to encourage the development of urban waterways that are positive amenities in the community.

Implementation Actions

- A. Johnson will continue to work with the University of Arkansas Cooperative Extension Service to support outreach and education efforts regarding water quality and riparian and wetland areas. This will include business, contractor, and developer outreach programs to educate these parties about their impacts on stormwater quality.

- B. Continue to maintain enforcement and compliance activities, including inspections, technical assistance, and Ordinance enforcement.
- C. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to engage the public in the efforts to create positive urban amenities.
- D. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to ensure that waterways are safe, meet State water quality standards, and can function as positive amenities.

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

Policies

- A. The City will work with the University of Arkansas Cooperative Extension Service to develop targeted education, outreach, and technical assistance programs regarding practices and obligations for keeping debris and pollutants out of the storm water drainage system.
- B. The City will develop, implement, and enforce appropriate building, design, and Ordinances to address water quality compliance issues such as pollution.

Implementation Actions

- 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.
- B. Continue to maintain enforcement and compliance activities including inspections, technical assistance, and Ordinance enforcement.
- C. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to engage the public in the efforts to create positive urban amenities.
- D. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to ensure that waterways are safe, meet State water quality standards, and can function as positive amenities.

Goal 5: Urban drainage ways become community amenities.

Policies

- A. The University of Arkansas Cooperative Extension Service will conduct education and outreach activities to appropriate target groups to increase understanding of the importance of maintaining safe and clean drainage ways, and to seek volunteers willing to be caretakers for water features near them.
- B. Johnson will, through their ordinances, protect existing significant open waterways and encourage site planning that enhances the natural functions of the water features.
- C. The City will maintain urban drainage ways in a manner that provides for safe conditions within the limits of its fiscal constraints.

Implementation Actions

- 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.
- 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.
- C. The University of Arkansas Cooperative Extension Service will work to increase educational outreach to the public to increase awareness of children regarding the need to keep litter and pollutants out of urban drainage ways.

- D. Implement all six of the NPDES Minimum Control Measure BMPs. Implementing all of the provisions of the MS4 program will ultimately result in improved water quality and quantity management, improved habitat and resource protection, and, ultimately, enhance urban waterways as desirable community amenities.

The City's NPDES MS4 Program:

Johnson's Stormwater Management Program - Responsible Parties:

The City is responsible for implementing surface water management activities within its Urbanized Areas, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. In response to the NPDES Phase II stormwater requirements, Johnson developed an MS4 program addressing each of the six required Minimum Control Measures specified in the Federal-NPDES Phase II rules. The City's stormwater management program is the responsibility of the City Administration. However, the implementation of the City's MS4 program will extend throughout the City organization by the following City departments being involved in stormwater management: Street Department, Planning, Building Permits & Inspections, and the City Contract Engineer. Each department's task is to recognize stormwater issues of its facilities, the field work they do, and to log data for any stormwater-related event.

City Maintenance and New Development

The Street Department maintains all City-owned property through maintenance activities such as mowing, tree trimming, storm drainage removal of debris, sediments, and other items that may hinder conveyance of stormwater. For street maintenance, the City occasionally utilizes a wire brush sweeper to remove sediment from the streets. All new development is held to a high standard of following best management practices to prevent stormwater pollution.

ADEQ-required Municipal Separate Storm Sewer System (MS4) Plan Elements:

The Federal rules and, therefore, ADEQ's permit requirements, direct that the City's MS4 program address six minimum areas termed "**Minimum Control Measures**" described in detail later in this document:

Minimum Control Measures:

1. **Public Education and Outreach on Stormwater Impacts** (3.2.1 - 3.2.1.4 of the NPDES Permit ARRO40000)
2. **Public Involvement/Participation** (3.2.2 of the NPDES Permit ARRO40000)
3. **Illicit Discharge Detection and Elimination** (3.2.3 of the NPDES Permit ARRO40000)
4. **Construction Site Stormwater Runoff Control** (3.2.4 of the NPDES Permit ARRO40000)
5. **Post-Construction Stormwater Management for New Development and Redevelopment** (3.2.5 of the NPDES Permit ARRO40000)
6. **Pollution Prevention/Good Housekeeping in Municipal Operations** (3.2.6 of the NPDES Permit ARRO40000)

For each of these six minimum control measures, this SWMP includes the following information:

- The Best Management Practices (BMPs) that the permittee or another entity will or already implements for each of the stormwater Minimum Control Measures;
- The measurable goals (Benchmarks) for each of the BMPs including, as the City has authority to implement and as appropriate: the years in which the permittee will undertake required actions and the frequency of the action, in order to satisfy the Permit's performance standards;
- The person or persons responsible for implementing or coordinating the BMPs for the City's MS4 program. There shall be a Table of Organization including a primary point of contact and identification of how implementation of the SWMP across the City's various positions, agencies, and departments will occur. Needed contact information and position title for each entity shall be listed.
- Rationale for how and why each of the BMPs and measurable goals for the permittee's stormwater management program was selected. The MS4 program is required to be developed and implemented within five (5) years of initially being granted Small MS4 general permit coverage. Since Johnson initially

had coverage under a previous version of this permit, they have revised their MS4 program and this SWMP where needed to satisfy the 2019-2024 NPDES Permit ARR040000.

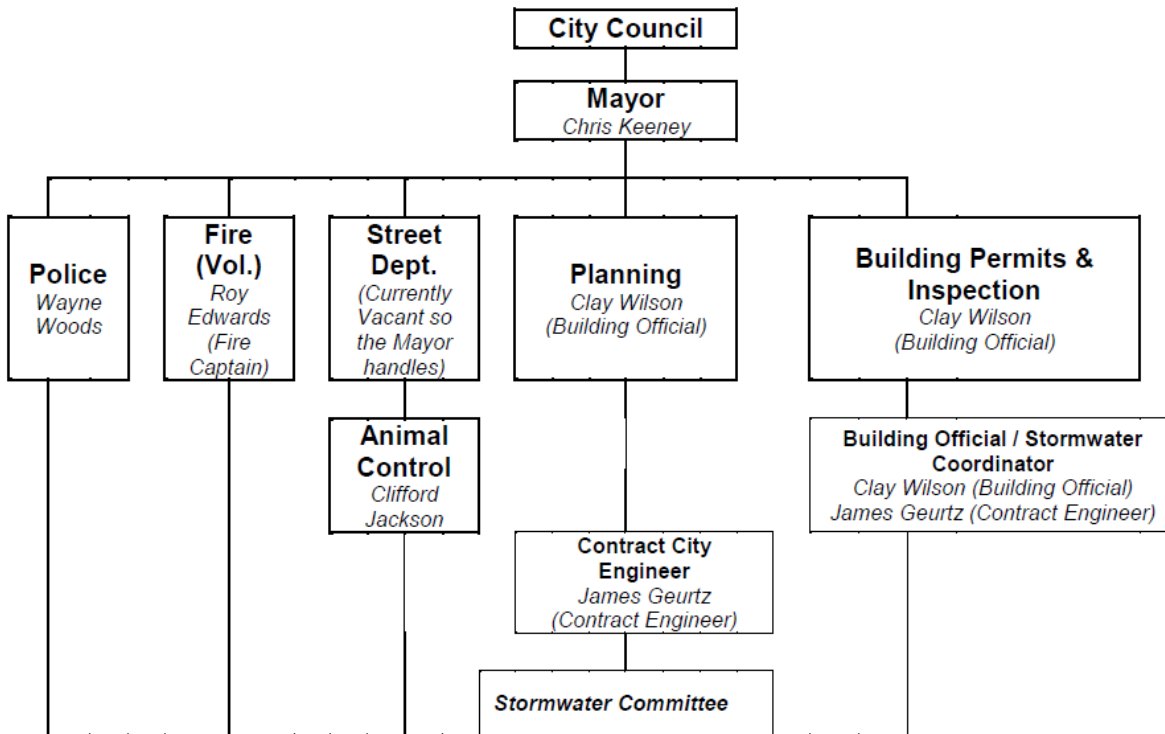
- Reevaluation of BMPs will occur if Johnson discharges into impaired waters, waters with an approved TMDL where it has been determined that the City contributes to said impairment, or waters designated as an Extraordinary Resource Water (ERW), Ecologically Sensitive Waterbody (ESW), Natural and Scenic Waterway (NSW). The enhanced BMPs shall be specifically addressed within the SWMP. *See below:*

Stormwater Best Management Practices (BMPs):

The term “Stormwater Best Management Practices (BMPs)” is a *catch-all* term for approaches to managing stormwater that reduce negative impacts of runoff on receiving streams. While the term has become widely used by 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.

Organization Chart



Also part of this organization chart is the University of Arkansas' Cooperative Extension Service which provides the educational aspect of the MS4 program.

NPDES Phase II BMP Requirements:

Specific BMPs, proposed for each Minimum Control Measure, are intended to support the reduction of pollutant discharges in stormwater runoff to the *maximum extent practicable (MEP)* as required by the Federal-NPDES Phase II rules. The tables to follow provide a summary of the selected BMPs and the associated implementation schedule. 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.

On the following pages, the five-year BMP development/implementation schedule specifies when certain activities will be completed on a fiscal year basis. The NPDES Phase II rules provide for a five-year implementation schedule starting August 01, 2019 and terminating July 31, 2024.

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

Decision Process

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

Public Education/Outreach BMPs

Develop and distribute educational materials

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

Measurable Goals:

- Mechanism types and numbers of educational materials will be documented.

- Develop 5 educational materials across the permit term.

- Attendance of MS4 Stormwater Compliance Group and Education Steering Committee meetings will be documented.

Conduct stormwater education activities

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

Measurable Goal:

- Stormwater education programs will be conducted and documented.

Responsible Party

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

Performance Standard:

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

**Minimum Control Measure #1:
Public Education & Outreach on Stormwater Impacts
5 Year Implementation Schedule of Measurable Goals**

2020	2021	2022	2023	2024
<i>Topic Emphases:</i> Storm drain awareness/dumping	<i>Topic Emphasis:</i> Litter	<i>Topic Emphasis:</i> Sediment control	<i>Topic Emphasis:</i> Yard waste	<i>Topic Emphasis:</i> Automotive maintenance and Household Hazardous Waste (HHW)
<i>Target Audience:</i> General public	<i>Target Audience:</i> General public	<i>Target Audience:</i> Land development community	<i>Target Audience:</i> General public and green industry	<i>Target Audience:</i> General public and vehicle owners
<i>Rationale:</i> Pollutants entering the storm drain system degrade water quality	<i>Rationale:</i> Improper handling and disposal of litter can allow it to enter the storm drain system and degrade water quality	<i>Rationale:</i> Sediment leaving construction sites can enter the storm drain system and degrade water quality	<i>Rationale:</i> Improper yard waste disposal can clog drainage ways and excess fertilizer and pesticide applications can enter the storm drain system and degrade water quality	<i>Rationale:</i> Improper vehicle maintenance and HHW disposal can allow pollutants to enter the storm drain system and degrade water quality

Minimum Control Measure #2: Public Involvement/Participation

Decision Process

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

Target Audience

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

Public Involvement/Participation BMPs

Engage Residents in Public Participation/Involvement Activities

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

Measurable Goal:

Public participation activities will be documented.

Responsible Party

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

Performance Standard

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

Minimum Control Measure #3: Illicit Discharge Detection and Elimination

SWMP Permit Requirements: The permittee must:

1. ...develop, implement and enforce a program to detect and eliminate illicit discharges...into the small MS4; 3.2.3.1
2. ...develop a storm sewer system map, showing the location of all surface waters of the State that receive discharges from those outfalls. (including catch basins, pipes, ditches and public and private stormwater facilities) ...3.2.3.2
3. ...effectively prohibit, through ordinance or other regulatory mechanism, illicit discharges into the storm sewer system and implement appropriate enforcement procedures and actions;(3.2.3.3); ...develop and implement a plan to detect and eliminate non-storm water discharges, including illegal dumping...(3.2.3.4);
4. ...inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; 3.2.3.5
5. ...address...non-stormwater discharges or flows (i.e. illicit discharges)...only if the MS4 identifies them as significant contributors of pollutants to the small MS4: uncontaminated 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, uncontaminated foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, uncontaminated footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, uncontaminated street wash water, and discharges or flows from emergency fire fighting activities, and splash pads. 3.2.3.6
6. ...develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected...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 permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to waters such as impaired waters, waters with an applicable TMDL, ERWs, ESWs, or NSWs, 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-storm water discharge...determined to be contributing substantial amounts of pollutants to the permittee's MS4. 3.2.3.7
7. ...document the decision process for the development of a stormwater illicit discharge detection and elimination program. ...the rational statement shall address the overall illicit discharge detection and elimination program and the individual BMPs, measurable goals, and responsible persons for the program...and shall include the following information, at a minimum: 3.2.3.8.
 - a. ...how the MS4 will develop a storm sewer system map showing ...location of all outfalls and the names and location of all receiving waters. Describe the sources of information used for the storm sewer system 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 storm sewer system map will be regularly updated. 3.2.3.8.1
 - b. The mechanism (ordinance or other regulatory mechanism) the MS4 will use to...prohibit illicit discharges...and why the MS4 chose that mechanism. ...Include a copy of the relevant sections with the program.; 3.2.3.8.2
 - c. The plan (through enforcement procedures and actions) that will ensure that the illicit discharge ordinance is implemented. 3.2.8.3
 - d. The plan to detect and address illicit discharges...shall address the following...procedures for...3.2.3.8.4
 - I. ... locating priority areas...with higher likelihood of illicit connections... or ambient sampling to locate impacted reaches. 3.2.3.8.4.1
 - II. ...tracing the source of an illicit discharge, including the specific techniques that will be used to detect the location of the source. 3.2.3.8.4.2
 - III. ...removing the source of the illicit discharge; and 3.2.3.8.4.3
 - IV. ...for program evaluation and assessment. 3.2.3.8.4.4

- e. *how the MS4 plans to inform public employees, businesses, and the general public of hazards associated with illegal discharge and the 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; 3.2.3.8.5*
- f. *...who is responsible for overall management and implementation of...this Minimum Control Measure #3. 3.2.3.8.6*
- g. *...How the MS4 will evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs. 3.2.3.8.7*

Johnson has chosen to follow the below five Illicit Discharge, Detection, and Elimination (IDDE) BMPs to address the above SWMP permit requirements:

- IDDE1 – Illicit Discharge Reporting and Tracking Regulating Documents
- IDDE2 – Storm Sewer Inventory and Mapping
- IDDE3 – Illicit Discharges Response and Enforcement
- IDDE4 – City-wide Illicit Discharge Detection and Elimination
- IDDE5 – Non-Stormwater Discharge Assessment

Decision Process

Johnson selected the above BMPs to aid in developing tools and processes for discovering and elimination of illicit stormwater discharges. The City of Johnson’s Grading, Erosion Control, and Stormwater Pollution Prevention (Ordinance 2007-06) <http://cityofjohnson.com/city-ordinance/2007/ordinance-2007-06> and the City’s Title 11 Building and Construction code – Chapter 11.48 Stormwater Pollution Prevention: <http://cityofjohnson.com/building-and-construction> give Johnson a framework from which City staff tracks, regulates and enforces illicit discharges (**IDDE1, 7b, & 7c**). **IDDE1** sets standard regulations expected to be followed. This addresses above permit requirements **1 & 3**. Johnson uses its detailed map of the City’s ditches, outfalls, detention ponds, springs, culverts, storm pipes, roads, and waterbodies for inspections. They also maintain and update the map when changes are needed (addressed in **IDDE2, IDDE4, & 2**).

The stormwater conveyance map was created from online aerial imagery, .dwg files from past development plans, from old plan sets, and from field observations. Names of waterbodies come from google earth’s Water .kmz file data and, if needed, historical surveys or local knowledge. Outfalls will be inspected at least once every five years. The inspector is to report any inaccuracies to the mapper for corrections (**2 & 7a**). The City’s existing code will be utilized to enforce prohibited illicit discharges (**7b**).

Permit requirements **4 & 7e** are addressed through the University of Arkansas’ Extension Service’s public education portion of this SWMP permit. **IDDE3** (utilizing/addressing permit requirements **1, 3, & 5**) involves utilizing the City’s Ordinance documents for a response and enforcement framework guide to illicit discharges, including any non-stormwater discharges or flows determined to be significant contributors of pollutants (**5**). **IDDE3 & 4** involve City Staff utilizing their MS4 map and the illicit discharge reporting system to detect and eliminate sources of illicit discharge. City staff responds to illicit discharge reports/discoveries and they address measures required for elimination of illicit discharges (**7e II**). When allowable non-stormwater illicit discharges are discovered, Staff will keep a record and a list of the allowable discharges (**IDDE5**) (**6**). Dry-weather screening for non-stormwater flows will occur in order to detect and address illicit discharge to the MS4 system (**IDDE4**). Tracking of illicit discharges shall utilize public and employee complaints and the stormwater map; from the known source of the contamination, the inspector shall track the illicit discharge up-flow to locate the source. (**7d 1-II**). Once the source of the illicit discharge has been discovered, the City’s code regulations will be utilized to require remediation of the situation (**7d III**). The success of this Minimum Measure will be determined by whether illicit discharges are remediated as required by the City (**7g**).

Each of the Measurable goals were selected in order to coincide with the rows of the Annual Report and with the NPDES Permit No. AR040000's regulations for each minimum control measure (7e III). If Johnson encounters problems locating illicit discharges and/or enforcing illicit discharge elimination, they will reevaluate the program elements (7d iv).

Measurable Goals

IDDE1 - Illicit Discharge Reporting and Tracking Regulating Documents

Measurable Goals:

- Follow:
 - Grading, Erosion Control, and Stormwater Pollution Prevention (Ordinance 2007-06)
<http://cityofjohnson.com/city-ordinance/2007/ordinance-2007-06> Drainage Criteria Manual
- The City's Title 11 Building and Construction code – Chapter 11.48 Stormwater Pollution Prevention:
<http://cityofjohnson.com/building-and-construction> Continue utilizing tracking mechanisms for documents and files
- Continue utilizing the standard forms and procedures

IDDE2 - Storm Sewer Inventory and Mapping

Measurable Goals:

- Continue adding any new outfalls, stormwater pipes, ponds, ditches, and springs to the map when discovered.
- Add new .dwg linework to the Stormwater Map when new development or changes in ditches, outfalls, or storm pipes occur.

IDDE3 – Illicit Discharges Response and Enforcement

Measurable Goals:

- Staff to report to the Building Official any concerns observed while completing daily responsibilities
- Eliminate any sources of non-allowed MS4 pollution
- Complaints phoned in shall be directed to the Building Official, all complaints documented, and a file created for investigation and resolution.
 - Continue to track number of complaints received and investigated and continue to track number of enforcement actions taken
- Continue to track number of enforcement actions taken

IDDE4 – City-wide Illicit Discharge Detection and Elimination

Measurable Goals:

Detection

- Continue to inspect outfalls and record inspection data, resulting in 100% of the outfalls being inspected by the termination of this SWMP's permitted span.
- Continue to update storm sewer outfall map as needed.
- Staff to report any concerns observed while completing their daily responsibilities.

Elimination

- Follow enforcement procedures developed for illicit discharges.
- Educate City Staff and area businesses about illicit discharges (*carried out by the Extension Service's public education programs*).
- Continue to track number of outfalls dry-weather screened.
- Continue to track number of dry-weather flows identified.
- Investigations are to include notification of responsible party and creation of a plan of resolution.
- Report severe incidents to the appropriate state or federal agency.

IDDE5 - Non-Stormwater Discharge Assessment

Measurable Goals:

Assess non-stormwater discharges, once identified

- Record allowable and potentially significant non-stormwater illicit discharges.
- If any discharges are detrimental to storm water system; if there are, work to eliminate them.

Responsible Parties

Responsible Parties are the Street Department, Planning, Building Official, and the City Contract Engineer.

Performance Standard

The successful implementation of a non-stormwater discharge assessment process includes complete mapping of the storm sewer system, standard forms and procedures, and the ability to track progress of events such as screenings, inspections, and enforcement in order to determine where non-stormwater discharges exist.

**Minimum Control Measure #3:
 Illicit Discharge Detection & Elimination (IDDE)
 5 Year Implementation Schedule of Measurable Goals**

BMP#	PERMIT YEAR				
	2020	2021	2022	2023	2024
IDDE1	Illicit Discharge Reporting and Tracking Regulating Documents				
	Continue utilizing tracking forms and documenting complaints. If needed, update the regulating documents.				
IDDE2	Storm Sewer Inventory and Mapping				
	Add new and changed MS4 items to MS4 outfall map as needed/discovered.				
IDDE3	Illicit Discharge Response and Enforcement				
	Continue to eliminate sources of non-allowed MS4 pollution				
	Continue to track number of complaints received and investigated Continue to track number of enforcement actions taken				
IDDE4	City-wide Illicit Discharge Detection and Elimination				
	Continue to inspect outfalls and record inspection data, resulting in 100% of the outfalls being inspected by the termination of this SWMP's permitted span.				
	Continue to update storm sewer outfall map as needed. Continue to report IDDE concerns for remediation through proper channels.				
IDDE5	Non-Stormwater Discharge Assessment				
	Record allowable and potentially significant non-stormwater illicit discharges. Determine if any discharges are detrimental to storm water system; if there are, work to eliminate them.				

Minimum Control Measure #4: Construction Site Stormwater Runoff Control

Permit Requirements: The permittee must:

1. *...develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the permittee's 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 the Department 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:*
 - a. *Enforce Johnson's existing regulating documents to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law; 3.2.4.1.1*
 - b. *Requirements for construction site operators to implement appropriate erosion and sediment control BMPs; 3.2.4.1.2*
 - c. *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; 3.2.4.1.3*
 - d. *Procedures for site plan review which incorporate consideration of potential water quality impacts; 3.2.4.1.4*
 - e. *Procedures for receipt and consideration of information submitted by the public; and 3.2.4.1.5*
 - f. *Procedures for site inspection and enforcement of control measures. 3.2.4.1.6*
2. *Decision Process. ...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: 3.2.4.2*
 - a. *...(ordinance or other regulatory mechanism)...used to require erosion and sediment controls at construction sites and why the MS4 chose that mechanism...If the ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the SWMP description. 3.2.4.2.1*
 - b. *...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... 3.2.4.2.2*
 - c. *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. 3.2.4.2.3*
 - d. *...procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Describe ...procedures and...rationale for how certain sites will be identified for site plan review, if not all plans are reviewed. Describe the estimated number of percentage of sites that will have pre-construction site plans reviewed; 3.2.4.2.4*
 - e. *...procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with the public education program; 3.2.4.2.5*
 - f. *...procedures for site inspection and enforcement of control measures, including how sites are prioritized for inspections; 3.2.4.2.6*
 - g. *...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 with this program, and 3.2.4.2.8*
 - h. *Describe how the MS4 will evaluate the success of this minimum measure, including how the measurable goals were selected for each of the BMPs. 3.2.4.2.8*
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. 3.2.4.3*

The City has chosen to follow the below three Construction Storm Water (CSW) BMPs to address the above SWMP permit requirements:

Construction Storm Water measures (CSW):

CSW1 – Stormwater Drainage Ordinance Regulations

CSW2 – Reduction of runoff pollutants

CSW3 – Address complaints

CSW4 – Site Plan Review

CSW5 – Site Inspections

CSW6 – Enforcement

Decision Process

The above chosen six BMPs act to address the construction site stormwater runoff control requirement. Johnson has existing regulating documents in place to address construction site runoff (**CSW1 and 1, 1b, & 1c**). Construction site stormwater control regulations are in place to guide contractors and to provide regulations for the City to follow for regulating discharges by contractors (**CSW2**). Responsible persons for meeting the requirements of the program are contractors, City Staff when City Staff is conducting dirt work activities, and City Staff and the City Contract Engineer when enforcement actions are being carried out. The Building Official and Contract City Engineer are responsible for site plan review and site inspections (**2g**). The City's existing regulations provide guides for Staff to utilize in enforcing BMPs applicable on construction sites; this addresses all above **CSW** measures & **1a-1f, 2a, 2c**. Complaints will be received by Planning or the Building Official and remediation will either be enforced or be taken care of by City staff (**CSW3 & 2c**).

Pre-Construction Site plans are reviewed by the Building Official and City Contract Engineer (**CSW4**) for compliance with the City's regulating Ordinances (**2b, 2d, & 3f**). Sites of 1 acre or more are required to undergo site plan review (**CSW4, 2d, & 3**). Any plans not in compliance are required to be brought into compliance before the plans will be approved for construction.

Construction site inspections are to occur at least once a month; multiple inspections within a month may occur on sites (**CSW5 & 2**). If illicit discharges are discovered on a site, compliance with the erosion and sediment control regulatory mechanism is required (**2b**). When enforcement actions are required, a notice will be given to the responsible party detailing the MS4 issue. If this is insufficient, a stop work order may be enforced until the out of compliance issue(s) is/are remediated (**2b, 2f**).

Success of this BMP will be determined by enforcement of BMPs, and by the rate of compliance of any enforcement actions (**CSW4, CSW5, CSW6 & 2h**).

An important aspect of this minimum control measure is public education which is handled by the University of Arkansas Cooperative Extension Service (**2e**).

Measurable Goals

CSW1 Stormwater Drainage Ordinance Regulations

Measurable Goals:

- Follow the requirements put forth by the existing regulating Ordinance 2007-06 (Grading, Erosion Control, and Stormwater Pollution Prevention) - <http://cityofjohnson.com/city-ordinance/2007/ordinance-2007-06> for erosion and construction site runoff control and Code: Title 11 Building and Construction – Chapter 11.48 Stormwater Pollution Prevention: <http://cityofjohnson.com/city-code/building-and-construction>
- Update the regulating documents if found to be needed.

CSW2 Reduction of Runoff Pollutants

Measurable Goals:

- Staff to review all applicable projects of 1 acre and larger, including projects less than 1 acre that are part of a larger common plan of development, before construction, for BMP compliance.
- Erosion and sediment controls as well as measures to control waste shall be shown on the erosion control plans. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.

CSW3 Address Complaints

Measurable Goals:

- Record number of complaints received
- Work to get resolution of complaints

CSW 4 Site Plan Review

Measurable Goals:

- Staff to review all applicable projects of 1 acre and larger before construction, for BMP compliance. Staff to review smaller sites if determined by Staff to be needed.
- Erosion and sediment controls are to be shown on the erosion control plans as well as measures to control waste. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.
- Continue to track number of applicable sites in the MS4 jurisdiction requiring pre-construction plan review.

CSW5 Site Inspections

Measurable Goals:

- A Preconstruction Meeting shall continue to be held to discuss maintenance of BMPs during construction. Track projects requiring Preconstruction Meetings.
- Inspect all applicable sites for compliance with regulating documents once a month or more often if needed.
- Record site inspections.
- Record number of violation communications issued.

CSW6 Enforcement

Measurable Goals:

- Continue enforcement communications and subsequent inspection letters; tract both. Any reports of non-compliance of BMPs on any construction site are to be dealt with in a timely manner.
- Track enforcement communications and subsequent inspection letters.
- Continue to perform Pre-Construction meetings

Responsible Parties

Responsible entities for site plan review and site inspections are the Building Inspector and the City Contract Engineer.

Performance Standard

The performance of this BMP can be determined by how well the BMP requirements are followed for projects and by the enforcement actions of the Street Department.

**Minimum Control Measure #4:
Construction Site Runoff Control
5 Year Implementation Schedule of Measurable Goals**

BMP#	PERMIT YEAR				
	2020	2021	2022	2023	2024
CSW1	Stormwater Drainage Ordinance Regulations				
	Continue to follow the requirements put forth by the existing regulating Ordinances having to do with erosion and construction site runoff control. Update the regulating documents if found to be needed.				
CSW2	Reduction of runoff pollutants				
	Staff to review all applicable projects of 1 acre and larger, including projects less than 1 acre that are part of a larger common plan of development, before construction, for BMP compliance.				
CSW3	Address complaints				
	Continue to utilize the complaint form. Continue to record number of complaints received and the process followed to remedy the complaints. Continue working to get resolution of complaints.				
CSW4	Site Plan Review				
	Staff to continue to review all applicable projects of 1 acre and larger before construction, for BMP compliance. Staff to review smaller sites if determined by Staff to be needed. Erosion and sediment controls are to be shown on the erosion control plans as well as measures to control waste. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste. Continue to track number of applicable sites in the MS4 jurisdiction requiring pre-construction plan <u>review</u> .				
CSW5	Site Inspections				
	Continue to inspect all applicable sites for compliance with regulating documents once a month or more often if needed. A Preconstruction Meeting shall continue to be held to discuss maintenance of BMPs during construction. Track projects requiring Preconstruction Meetings. Continue to record site inspections and number of violation communications issued.				

CSW6	Enforcement
	Continue enforcement communications and subsequent inspection letters; track both. Any reports of non-compliance of BMPs on any construction site are to be dealt with in a timely manner.
	Continue to tract enforcement communications and subsequent inspection letters.

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

1. *...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 scale, that discharge into a small MS4. The program shall ensure that controls are in place that will prevent or minimize water quality impacts. 3.2.5.1*
2. *...develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community. 3.2.5.2*
3. *...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...3.2.5.3*
4. *The permittee shall ensure adequate long-term operation and maintenance of BMPs. 3.2.5.4*
5. *Decision process...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: 3.2.5.5*
 - a. *Develop...a program to address stormwater runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program. 3.2.5.5.1*
 - b. *How the program will be specifically tailored for a local community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions; 3.2.5.5.2*
 - c. *Provide information regarding Any non-structural BMPs in the program (i.e. TMDLs, minimization of impervious surfaces, etc). 3.2.5.5.3*
 - d. *Provide information regarding...Any structural BMPs in the program (i.e. stormwater storage practices such as wet ponds and extended-detention outlet structures, infiltration practices, etc.). 3.2.5.5.4*
 - e. *Provide information regarding the mechanisms (ordinance or other regulatory mechanisms) used to address post-construction runoff from new developments and redevelopment and why they were chosen. If a mechanism needs to be developed, then describe a plan and a schedule to do so. 3.2.5.5.6*
 - f. *How the permittee will ensure the long-term operation and maintenance (O&M) of the selected BMPs. 3.2.5.5.6*
 - g. *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; and 3.2.5.5.7*
 - h. *How the MS4 will evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs.*
6. *Low Impact Development. ADEQ recommends that MS4s evaluate their existing codes and planning procedures to remove impediments to low impact development and green infrastructure. The Department also encourages municipalities to evaluate proposed development using green infrastructure for waivers from local requirements in their community planning process. The operator 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 this renewal permit term. 3.2.5.8*

The City has chosen to follow the below six Development Standards (DS) BMPs to address the above SWMP permit requirements:

Development Standards (DS):

DS1 -- City Code of Ordinances and BMP Manual

DS2 -- Post Construction Requirements

DS3 – Site Plan Review

DS4 – Site Inspection Procedures

DS5 – Enforcement Procedures

DS6 – Long-Term O&M Plans/Agreements

Decision Process

Regulations for post-construction site runoff on sites one acre or larger are already in place (**DS1**). In the City’s regulating Ordinances, strategies covering a combination of structural and/or non-structural BMP requirements are provided (**DS1 & 2**).

Long-term operation and maintenance of BMPs is ensured in Johnson through the Street Department’s maintenance of public drainage ways, through the City enforcing their Floodplain Development Permit, and through private easements being maintained by property owners and Property Owner Associations (POAs) (**DS6 & 4**).

Encourage Low Impact Development (LID) methods when possible (**DS2, 3, 5c, 5d**). Ordinance requirements require development to address post-construction runoff from new development and redevelopment to prevent off-site illicit discharges. These ordinances provide examples of these methods (**5e**).

Post-Construction BMP methods are reviewed for compliance during Site Plan Review and Site Inspections (**DS1-DS4, 5a**). The City’s Grading, Erosion Control, and Stormwater Pollution Prevention Ordinance 2007-06 grants the City permission to enforce compliance actions against compliance offenders (**DS5, DS6, & 5f**). The success of the program will be measured by the ability to enforce post-construction BMP requirements (**DS5 & 5h**).

Measurable Goals

DS1 City Code of Ordinances and BMP Manual

Measurable Goals:

- Utilize the existing regulating ordinance documents to guide the methods used on construction sites for erosion and sediment control on sites 1 acre or larger in size, including projects less than 1 acre that are part of a larger common plan of development.
- If needed, revise regulating documents to provide additional post-construction runoff regulations.
- Remove impediments to Low Impact Development (LID) where possible.

DS2 Post Construction Requirements

Measurable Goals:

- When needed, enforce structural BMPs for post construction runoff.

DS3 Site Plan Review

Measurable Goals:

- Review site plans for post-construction BMPs to ensure adequate stormwater controls are employed.

DS4 Site Inspection Procedures

Measurable Goals:

- During a site's final inspection, continue to ensure that post-construction BMPs are correctly installed.

DS5 Site Enforcement Procedures

Measurable Goals:

- Enforce the City's BMP requirements during both site plan review and site inspections.
- Continue to record every site inspection and to record the number of violation letters issued.

DS6 Long-Term O&M Plans/Agreements

Measurable Goals:

- Continue to have the City's Street Department maintain public storm drains and continue to enforce maintenance of privately-owned stormwater conveyance systems.

Responsible Parties

The City's Building Official and City Contract Engineer coordinate site plan review, grading and drainage review, and final walk-through inspections. The Street Department maintains the City's properties. Individual contractors falling under the requirements of Measurable Goal #5 are responsible for their individual sites until a Notice of Termination is awarded on applicable sites or until the City releases the project.

Performance Standard

The performance of this BMP can be determined by how well the City is able to enforce post-construction requirements.

**Minimum Control Measure #5:
Post-Construction Storm Water Management in New Development and Redevelopment
5 Year Implementation Schedule of Measurable Goals**

BMP#	PERMIT YEAR				
	2020	2021	2022	2023	2024
DS1	City Code of Ordinances and BMP Manual				
	Utilize the existing regulating ordinances to guide the methods used on construction sites for erosion and sediment control on sites 1 acre or larger in size, including projects less than 1 acre that are part of a larger common plan of development.				
	If needed, revise regulating documents to provide additional post-construction runoff regulations. Remove impediments to LID where possible.				
DS2	Post Construction Requirements				
	When needed, continue to enforce structural BMPs for post construction runoff				
DS3	Site Plan Review				
	Continue to review site plans for post-construction BMPs to ensure adequate stormwater controls are employed.				
DS4	Site Inspection Procedures				
	During a site's final inspection, continue to ensure that post-construction BMPs are installed adequately.				
DS5	Enforcement Procedures				
	Continue to enforce the City's BMP requirements during both site plan review & during site inspections.				
	Continue to record every site inspection and number of violation letters issued.				
DS6	Long-Term O&M Plans/Agreements				
	Continue to have the City maintain post-construction BMPs within the City's public property and continue to enforce maintenance on privately-owned post-construction BMPs.				

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping for municipal Operations

Permit Requirements: The permittee must:

1. *...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. 3.2.6.1*
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
...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. 3.2.6.2*
3. *Decision Process. ...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, a minimum: 3.2.6.3*
 - a. *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; 3.2.6.3.1*
 - b. *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; 3.2.6.3.2*
 - c. *The program description shall specifically address the following areas: 3.2.6.3.3*
 - I. *Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the MS4; 3.2.6.3.3.1*
 - II. *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; 3.2.6.3.3.2*
 - III. *Procedures for the proper disposal of waste removed from the MS4 and the municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris; and 3.2.6.3.3.3*
 - IV. *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. 3.2.6.3.3.4*
 - d. *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; and 3.2.6.3.4*
 - e. *How will the MS4 evaluate the success of this minimum measure, including how the MS4 selected the measurable goals for each of the BMPs. 3.2.6.3.5*
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 (ARRO0000), 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. 3.2.6.4

Decision Process

The City has a contract with Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service to offer training at least once a year on reducing contamination to the MS4; applicable City employees are to attend these training services (**3b**). In addition, periodic meetings are held by the Cooperative Extension Service to discuss MS4-related matters with the City and other MS4s in the area (**3b**). This service provides the needed training per permit requirements **1, 2, 3**, and per **OM1**.

Johnson will perform annual MS4 compliance inspections for all municipal facilities not requiring industrial stormwater permit coverage per ADEQ requirements (**OM2, 3a, & 4**). The overall pollution prevention/good housekeeping program is composed of individual BMPs, measurable goals, and responsible persons at the City's various facilities (**OM1**).

The City will develop an Operations & Management Manual to address routine maintenance activities and practices involving road salt, pesticides, herbicides, and fertilizer usages (**OM4**). This manual will address controls for reducing or eliminating discharges of pollutants from streets, roads, highways, parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas (**OM3, OM4, OM5, & 3c II**). Procedures guiding proper disposal of waste will be included in this manual (**3c III**). Said procedures will aim to prevent or reduce pollutants from municipal operations urban stormwater runoff.

New projects are required to follow existing ordinances for reducing impacts on water quality (**3c IV d**). Success of this BMP will be determined by methods successfully implemented to reduce applied pollutants such as road salt (**3c IV e**).

Johnson has chosen to follow the below five Pollution Prevention/Good Housekeeping for Municipal Operations standards to address the above SWMP permit requirements:

Operation and Maintenance (**OM**):

OM1 -- Operation and Maintenance Program

OM2 – Municipal Facility Inspections

OM3 – Maintenance Program

OM4 – Road Salt, Pesticide, Herbicide, and Fertilizer Usage

OM5 – Street Sweeping

OM1 Operation and maintenance program

Measurable Goals:

- As part of a contract with Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service, Cooperative Extension service employees will provide training at least once a year to MS4s. The training will use materials provided by ExCal Visuals and others that include information on construction sites, park & open space maintenance, and fleet & building maintenance. Jurisdictional-specific policies will also be addressed during these trainings and specific system maintenance as departmentally appropriate. Training will stress how the employees are the “eyes and ears” of the City and that they should learn to recognize signs of illicit discharge and how to properly report these instances. Recommendations from the employees are also addressed during the regional stormwater compliance committee’s monthly meetings, and these recommendations help to shape the educational outreach messages.
- Attend employee training as required by the NPDES permit.

OM2 Municipal Facility Inspections

Measurable Goals:

- Continue to perform, at a minimum, once yearly inspections of all municipal facilities requiring inspections.

OM3 Maintenance Program

Measurable Goals:

- Continue to have all applicable departments report their MS4 maintenance activities to the Building Permits and Code Enforcement department.

OM4 Road Salt, Pesticide, Herbicide, and Fertilizer Usage

Measurable Goals:

- Utilize the City’s Operations & Management Manual and make any needed changes to the Manual when/if needed.

OM5 Street Sweeping for Stormwater Pollution Control

Measurable Goals:

- Continue utilizing the City’s street sweeping program.

Responsible Parties:

The City’s Street Department is responsible for MS4 maintenance including salt, pesticides, herbicides, fertilizer, and street sweeping. The City’s Building Official is largely responsible for inspections of the city’s municipal facilities.

Performance Standard

The performance of this BMP can be determined by whether or not methods can be employed to keep salt, pesticide, herbicide, and/or fertilizer usage by the City to a minimum, if proper procedures are followed in utilizing them, if annual facility inspections show that the City is maintaining their facilities properly, and if City employees learn from the public education sessions.

**Minimum Control Measure #6:
Pollution Prevention / Good Housekeeping for Municipal Operations
5 Year Implementation Schedule of Measurable Goals**

BMP#	PERMIT YEAR				
	2020	2021	2022	2023	2024
OM1	Operation and Maintenance Program				
	The City should continue coverage of this BMP under memorandum of understandings with the University of Arkansas Cooperative Extension Service. Attend employee training as required by the NPDES permit.				
OM2	Municipal Facility Inspections				
	Continue to perform, at a minimum, once yearly inspections of all municipal facilities requiring inspections.				
OM3	Maintenance Program				
	Have applicable departments report their MS4 maintenance activities to the Building Official and City Contract Engineer for recordation. Continue to record MS4 maintenance activities.				
OM4	Road Salt, Pesticide, Herbicide, & Fertilizer Usage				
	Create an Operations & Management Manual to address potential reduction of road salt, pesticide, herbicide, and fertilizers.			Utilize Operations & Management Manual	
OM5	Street Sweeping				
	Within the Operations & Management Manual, create written procedures for the City's street sweeping program.			Continue utilizing the City's street sweeping program.	

Clear Creek TMDL

The below Measurable Goals provide protection of Clear Creek:

- Public Education and Outreach on Stormwaters Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- The majority of the city has access to municipal sewer. All future developments are encouraged to connect to the municipal sewer system.