

**Roeland Park, Kansas**  
**Stormwater Management Plan**  
**January 1, 2021 through January 31, 2024**



Federal Permit No. KSR041030

Submitted in Compliance with Kansas Permit No. M-MO35-SU01

Date: January 1, 2021

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## SECTION 1: INTRODUCTION

This document is a Stormwater Management Plan (SMP, or the “Plan”) created to help reduce the discharge of pollutants in stormwater runoff from the Municipal Separate Storm Sewer System (MS4) within regulated areas of Roeland Park, Kansas (Map of permitted area included in Appendix A). It outlines stormwater program activities, monitoring requirements, reporting requirements, and responsible parties for implementing this work.

This plan was prepared in compliance with Kansas Permit Number M-MO35-SU01 (hereinafter “the permit”) issued to the City by the Kansas Department of Health and Environment (KDHE) to fulfill requirements of the Clean Water Act.

Permit Effective Date: October 1, 2019

Permit Expiration Date: September 30, 2024

The SMP is designed to:

1. Reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP),
2. Implement the Six (6) Minimum Control Measures as listed in Part I Section C of the permit,
  - a. The Six Minimum Control Measures are:
    - i. Public Education and Outreach,
    - ii. Public Participation and Involvement,
    - iii. Illicit Discharge Detection and Elimination,
    - iv. Construction Site Stormwater Runoff Control,
    - v. Post-Construction Stormwater Management in New Development and Redevelopment Projects, and,
    - vi. Pollution Prevention/Good Housekeeping for Municipal Operations.
3. Implement Best Management Practices (BMPs) to reduce to the MEP the discharge of the Total Maximum Daily Load (TMDL) regulated pollutants from the MS4 to the watershed of the impaired stream and/or lake as listed in the Permit.
4. And, satisfy the requirements of the permit, the Clean Water Act, and the Kansas surface water quality statutes and regulations.

Implementation of BMPs consistent with the provisions of the SMP document and this permit constitutes compliance with the standard of reducing pollutants to the Maximum Extent Practicable.

Overall responsibility for coordination of activities outlined in this Plan, and for reporting will be by the City of Roeland Park and submitting all documents (Stormwater Management Plan (and updates) and Annual Report) to KDHE.

## SECTION 2: PROGRAM ADMINISTRATION

This section addresses the individual responsible for ensuring the program compliance with the MS4 permit and the municipal staff responsibilities for various aspects of implementation.

Overall responsibility for coordination of activities outlined in this Plan is the Public Works Director. Other key staff listed below are responsible for documenting BMP activities and reporting the outcomes to the Public Works Director.

Department	Title	Name	Phone
Public Works	Public Works Director	Donnie Scharff	913-722-5435
Public Works	City Engineer		
Administration	Assistant Administrator and	Jennifer Jones Lacy	913-722-2600
Neighborhood Services	Building Official	John Jacobson	913-722-2600

- The Public Works Director is responsible for ensuring compliance of the permit and reporting compliance with the BMP's listed in Pollution Prevention/Good Housekeeping for Municipal Operations and other various places in each section of this plan.
- The City Engineer provides support by administering and reporting on all aspects of the MS4 permit requirements including the six minimum control measures.
- The Assistant Administrator is responsible for the City's webpage and tracking and reporting public education and outreach efforts through the City's newsletter or social media platforms.
- The Building Official is responsible for document compliance with the BMPs listed under Construction Site Stormwater Runoff Control & Post-Construction Stormwater Management in New Development and Redevelopment. Enforcement actions conducted are also documented. The City Engineer provides support on some aspects of these BMP's as well.

### Partnerships

- The Johnson County Stormwater Management Program (JCSMP) manages funds generated through a 1/10th of one percent sales tax collected throughout the entire County for the purposes of stormwater management. Every year, a percentage of these funds are dedicated to providing assistance to the cities within Johnson County who hold a NPDES MS4 permits. In particular, the JCSMP coordinates some efforts for best management practices for Minimum Control Measures (MCM) 1 and 2, but also assist with MCMs 3-6. This coordinated approach through this partnership has proven to be cost effective and reduces redundancy. The County is responsible for providing a template for the annual report and the SMP template (this is delivered to the Public Works and the City Engineer at the beginning of each year).

## SECTION 3: SIX MINIMUM CONTROL MEASURES

This section describes the six minimum water quality protection control measures that are required by all MS4 permits. They include the following:

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

### 3.1 MINIMUM CONTROL MEASURE 1 (MCM 1) - PUBLIC EDUCATION AND OUTREACH

#### Description

MCM 1 consists of implementing a public education program to inform individuals, businesses, and organizations about the impacts of stormwater discharges on surface water quality and how they can help reduce pollutants in stormwater runoff. This may include distribution of educational materials to the community and/or conducting outreach activities.

#### Benefit

An informed public increases awareness of water quality issues in both residents and businesses, creates opportunities for the public to take direct action to improve the health and sustainability of their community, and builds support for program goals making initiatives more effective.

#### Compliance

Compliance with the public education and outreach minimum control measure requires implementation of BMPs in Part I., Section C.1 of the Permit for a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 7 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 1.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3.1. Planned BMPs to meet MCM 1 requirements.**

BMP ID	BMP Summary	Responsible Staff	Points per year			
			2021	2022	2023	2024
<b>P Ed &amp; 0 - 01</b>	Maintain a stormwater webpage for the permittee.	Public Works Director (PWD) & Admin			3	2
<b>P Ed &amp; 0 - 02</b>	Distribute 3,282 educational materials (either flyers, brochures, catalog mailings, handouts, or e-mails) addressing various pertinent stormwater public education topics.	PWD & Admin	2	2	2	2
<b>P Ed &amp; 0 - 05</b>	Post the municipality's MS4 permit and SMP document on either the stormwater web page or the municipal webpage.	Admin	1	1	1	1
<b>P Ed &amp; 0 - 06</b>	Provide either a stormwater telephone hotline or web based or text message method for public reporting of illicit discharges.	Admin	2	2	2	2
<b>P Ed &amp; 0 - 08</b>	Provide stormwater education for students at a school campus within K-12 (those grades present at the campus) within the permittee's jurisdiction or within 30 miles from this permit area. Alternately, funding stormwater BMP installations and/or field trips at the school campus will qualify.	PWD & JCSMP	3	3	3	3
	Total points per year		8	8	11	11

**P Ed & 0 – 01, 05**

For 2021-2022, the City’s stormwater webpage will consist of posting the 2021-2024 SMP, the annual report and a method to comment on the reports or plan. The comments are emailed to the Public Works Director.

For 2023-2024, the City’s stormwater webpage will include educational topics and links for additional information on water quality and stormwater pollution. The City’s source for webpage content will be the County and MARC.

The City’s Assistant Administrator and Finance Director (Jennifer Jones-Lacy) is the contact for updates and changes to the webpage. The webpage is updated every February with the recent annual report and SMP plan.

**P Ed & 0 – 06**

Illicit discharges can be reported on the city's webpage by clicking on 'HOW DO I?' >> Submit >> Stormwater pollution dumping reports.

### **P Ed & O – 02**

A minimum of 2 educational messages each year will be distributed to residents through the City's Newsletter. The newspaper is mailed to approximately 6800 residents six times a year. The newsletter is also available on the City's webpage. This goal measurement is set by the number of housing units in Roeland Park that is reported by the US Census (3,282 housing units reported in 2010).

The administrative staff at City Hall is in charge of the newsletter and will provide copies of the newsletters to the Public Works Director.

The Public Works Director is responsible for providing the content to educate residents on the impact stormwater discharges have on water bodies and actions citizens, businesses and other local organizations can take to reduce the discharge of pollutants to stormwater. Resources for topics include MARC and the County.

In addition, the partnership with Johnson County covers this requirement. The County includes stormwater and pollution ads in the Johnson County Quarterly Magazine covering specific topics. The magazine is mailed to approximately 2,500 recipients in Roeland Park for each mailer.

### **P Ed & O – 08**

The City partners with Johnson County Stormwater Management Program, Johnson County K-State Extension, Friends of the KAW and the Stone Lion Puppet Theater to provide public education and outreach through print media, presentations, events and classroom instruction. The City's elementary class typically attends an event at the Stone Lion Puppet Theater in the fall.

### 3.2 MINIMUM CONTROL MEASURE 2 (MCM 2) - PUBLIC INVOLVMENT & PARTICIPATION

#### Description

This minimum control consists of creating opportunities for individuals and organizations to provide public comment and recommendations regarding BMPs and measurable goals and participate in the development and implementation of BMPs to reduce the contamination of stormwater. This program must also comply with state and local public notice requirements.

#### Benefit

The goal of the stormwater management plan is to improve water quality in local lakes and rivers, which provides benefits to the entire community. As such, the community deserves to have an opportunity to voice opinions on the content of the plan. Further, input into decisions builds support for and ownership in outcomes. MCM 2 also provides opportunity to the community to participate in activities, such as park or stream bank clean-up events, that help to remove pollutants from the MS4.

#### Compliance

Compliance with the public involvement and participation minimum control measure requires implementation of BMPs in Part I., Section C.2 of the Permit for a minimum of 3 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 6 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 2.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3-2. Planned BMPs to meet MCM 2 requirements**

BMP ID	BMP Summary	Responsible Staff	Points per year			
			2021	2022	2023	2024
P I/P - 03	Hold park or stream bank clean-up events for public volunteers to aid municipal staff in removing trash, debris, or pollutant sources from the selected clean-up area.	PWD & JCSMP	3	3	3	3
P I/P - 06	Establish a program to encourage residents to install stormwater treatment best management practices on their property.	PWD & JCSMP	2	2	2	2
P I/P - 10	Establish a program to employ (either paid or unpaid) high school or college age environmental interns in an environmental related program, for 8 weeks, including but not limited to either the wastewater utility , stormwater utility, potable water utility or solid waste utility	PWD	2	2	2	2
Total points per year			7	7	7	7

### **P I/P – 03**

There are no defined streams within City limits; therefore, the City teams up with the County, MARC, Bridging the Gap or other nearby communities to achieve this goal. Documentation will be a Sign Up / Attendance sheet and a description of the activity.

For example:

- JCSMP sponsors a variety of BMP's on behalf of all MS4 permitted cities in Johnson County.
- Bridging the Gap (BTG) provided public education about the adverse impacts of stormwater runoff and water pollution by hosting 8 stream cleanups in Johnson County watersheds with an established high priority Total Maximum Daily Loads.
- Turkey Creek holds a large cleanup event on Clean a Stream Day in April.
- MARC WEQ Committee will support the City by providing brochures, online social media, lend out their water quality items (banners, games), give out pet waste bags and containers, storm inlet markers etc. They are a great resource. The committee holds quarterly meetings. The city's on call engineer attends and participates on behalf of City.

### **P I/P – 06**

This goal is achieved through the Homeowner BMP Cost Share Program. The JCSMP provides funding to cities to match up to 50% percent of practices that a resident can implement on their property to reduce the effects of stormwater.

### **P I/P – 10**

An internship program is underway in the Public Works department. Internships must be provided for at least 8 weeks each year and receive the same training as regular Public Works / City staff receive.

\*In the event that funding is unavailable for any of these BMP's, modifications to the BMP's will be made and supplied to KDHE for review. See Modification section.

### **3.3 MINIMUM CONTROL MEASURE 3 (MCM 3) - ILLICIT DISCHARGE DETECTION AND ELIMINATION**

#### **Description**

This minimum control consists of developing, implementing, and enforcing a program to detect and eliminate illicit wastewater discharges or other non-stormwater discharges into the storm sewer system. KDHE requires this program to include, at a minimum:

- Developing a storm sewer system map of the permitted MS4 showing the location of all outfalls, either pipes or open channel drainage, and showing the names and locations of all streams or lakes that receive discharges from those outfalls.
- Enacting and enforcing an ordinance or resolutions to prohibit non-stormwater discharges into the storm sewer system. The City of Roeland Park passed pollution prevention regulations Ordinance No. 791 to regulate unlawful discharges into streams and the storm drain system.
- Informing public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
- Developing and implementing a plan to detect and address prohibited non-stormwater discharges.

#### **Benefit**

Direct discharges of waste streams can present significant localized impacts to both public health and the environment. Developing legal, technical, and educational means to eliminate illicit discharges provides direct benefits to water quality, the environment, and public health.

#### **Compliance**

Compliance with the illicit discharge detection and elimination minimum control measure requires implementation of BMPs in Part I., Section C.3 of the Permit for a minimum of 5 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 7 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 3.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3-3. Planned BMPs to meet MCM 3 requirements**

BMP ID	BMP Summary	Responsible Staff	Points per year			
			2021	2022	2023	2024
ID D & E - 03	Develop a spill response plan and, if appropriate, coordinate emergency response with other agencies or organizations.	PWD	3	2	2	2
ID D & E - 07	Implement a Household Hazardous Waste Collection Program (HHWCP) or document others have implemented such a program to provide such service to all property owners or residents located within the permit area.	PWD & JCSMP	3	3	3	3
ID D & E - 09	Provide a contribution to area recycle programs or programs (such as household hazardous waste disposal facilities, e-cycle facilities, paper shred facilities, pharmaceutical disposal facilities etc.) designed to properly dispose of types of waste or materials which have previously been discarded to or adjacent to either the MS4, streams, or lakes within or adjacent to the permittee's permit area. The area program must be within 30 miles from this permit area.	PWD, City Clerk	2	2	2	2
Total points per year			8	7	7	7

**ID D & E - 03**

Starting in 2021, the city will adopt a spill response plan in consultation with Consolidated Fire District No. 2.

**ID D & E - 07**

This is achieved through the partnership with Johnson County.

**ID D & E - 09**

Starting in 2023, the city will make a \$500 contribution to a recycle or household hazardous waste disposal facility or event annually. The City and surrounding municipalities team up each year to hold a city wide shredding event (The cost is about \$700/year). The City Clerk is responsible for coordinating this event.

### **3.4 MINIMUM CONTROL MEASURE 4 (MCM 4) - CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

#### **Description**

This minimum control includes developing, implementing, and enforcing a program to reduce pollutants in any stormwater runoff to the MS4 for construction sites disturbing one acre or more, including areas that are less than one acre but are part of a larger common plan for development that disturbs one or more acre. KDHE requires this program to include:

- Where permittees have the authority to do so, ordinances or resolutions shall be enacted to require erosion and sediment controls, as well as sanctions to ensure compliance. The City passed erosion and sediment control regulations with Ordinance 809 in 2007 to regulate runoff pollution from active construction sites disturbing more than one acre.
- Requirements for construction site owners or operators to implement erosion and sediment control BMPs.
- Requirements for construction site owners or operators to control waste at construction sites that are likely to cause adverse impacts to water quality.
- Procedures for site plan review which incorporate consideration of potential water quality impacts.
- Procedures for receipt and consideration of information submitted by the public.
- Procedures for site inspection and enforcement of control measures.

#### **Benefit**

If left uncontrolled, land disturbance activities can generate significant loads of sediment which can impact both adjoining properties and downstream water bodies. Fortunately, effective controls are easy and cost-effective to implement.

#### **Compliance**

Compliance with the construction site stormwater runoff control minimum control measure requires implementation of BMPs in Part I., Section C.4 of the Permit for a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 6 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 4.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3-4. Planned BMPs to meet MCM 4 requirements**

BMP ID	BMP Summary	Responsible Staff	Points per year			
			2021	2022	2023	2024
CS SR C - 01	Implement a requirement for a Soil Erosion and Sediment Control (SESC) Plan for any land Disturbance sites which are either equal to or greater than 1 acre or for which there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more.	Neighborhood Services & PWD	3	2	2	2
CS SR C - 02	Develop and adopt a design manual for erosion and sediment control BMPs which are required to be used on sites which will be disturbed and are either equal to or greater than 1 acre or for which there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more.	Neighborhood Services & PWD	3	2	2	2
CS SR C - 03	Provide access to at least one training class for contractors, developers or others involved with land disturbance projects which provides training on requirements for a Stormwater Pollution Prevention Plan (SWP2 Plan) and implementation of appropriate BMPs.	Neighborhood Services & PWD	3	3	3	3
CS SR C - 05	Establish effective requirements for construction sites to control wastes. Develop through ordinance or other enforceable means requirements for construction site operators or owners to control wastes. At a minimum control shall be imposed to prevent entry into the MS4 for the following wastes: discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.	Neighborhood Services & PWD	3	2	2	2
CS SR C - 07	Acquire or develop a software tracking system to track inspections and related tasks	Neighborhood Services & PWD	1	1	1	1
Total points per year			13	10	10	10

The overall success of MCM 4 will be measured through the implementation and enforcement for the Erosion and Sedimentation Control Standards and Stormwater Management Ordinance 809. Activities completed in MCM 4 will be reported for the annual report and effectiveness will be measured by tracking the following: Plans reviewed, inspection and results, enforcement actions, complaints received and training opportunities.

**CS SR C – 01, 02**

These BMP’s are achieved through the City’s Ordinance 791 and 809; adopting Kansas City Metropolitan Chapter of the American Public Works Association (KC Metro APWA) Design Criteria Section 5100 Erosion and Sediment Control.

**CS SR C – 03**

The City of Roeland Park requires all contractors to be licensed through the Johnson County Contractor Licensing Program where training is provided. This BMP is achieved through the City’s partnership with the County.

**CS SR C – 05**

This BMP is achieved through Ordinance 809, specifically in Section 15-503 of the Municipal Code.

**CS SR C – 07**

This BMP is achieved through the City’s electronic permitting software.

### **3.5 MINIMUM CONTROL MEASURE 5 (MCM 5) - POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

#### **Description**

This minimum control requires the development, implementation, and enforcement of a program to address post-construction stormwater runoff controls from both new development and redevelopment sites after development sites disturbing one acre or more, including projects that are less than one acre but are part of a larger common plan for development that disturbs one or more acre. KDHE requires the program to include:

- For permittees that have the authority, ordinances or resolutions to address post-construction runoff from new development and redevelopment projects to the extent allowable under state and local law.
- BMPs to prevent or minimize adverse water quality impacts.
- Strategies which include a combination of structural and/or non-structural BMPs appropriate for the municipality.
- Means to ensure adequate long-term operation and maintenance of BMPs.

#### **Benefit**

Conversion of native landscape to developed landscape increases both the volume of runoff and pollutant loads in stormwater. The consequences can include erosion, flooding, and pollution, impacting both downstream property owners and public infrastructure. Stormwater controls included in development sites can help reduce impacts and costs to both private property owners and the public.

#### **Compliance**

Compliance with the post-construction stormwater management in new development and redevelopment minimum control measure requires implementation of BMPs in Part I., Section C.5 of the Permit for a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 6 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 5.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3-5. Planned BMPs to meet MCM 5 requirements**

BMP ID	BMP Summary	Responsible Staff	Points			
			2021	2022	2023	2024
<b>P-C SM - 01</b>	Develop and adopt a custom design manual for Post-Construction Stormwater Management which specifies various structural BMPs required for new development and re-development construction sites which are greater than 1 acre or for where there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more. Alternatively, adopt and implement the APWA 5600 Stormwater Design Criteria and the MARC/APWA BMP Manual.	PWD	6	5	5	5
<b>P-C SM - 05</b>	Develop and implement a program for inspection of permittee owned structural BMPs which includes implementation of needed maintenance to ensure long-term operation of the BMPs	Neighborhood Services & PWD	3	2	2	2
Total points per year			9	7	7	7

The overall success of MCM 5 will be measured through the implementation and enforcement of Ordinance 809. Activities completed in MCM 4 will be reported to the Public Works Director for the annual report and effectiveness will be measured by tracking the following: Permits and certifications issued, public complaints received and training opportunities.

**P-C SM – 01**

Adopted APWA 5600 Stormwater Design Criteria and the MARC/APWA BMP Manual. Ordinance 809.

**P-C SM – 05**

The City’s Ordinance 809, specifically Municipal Code Section 15-515 covered this BMP.

### 3.6 MINIMUM CONTROL MEASURE 6 (MCM 6) - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

#### Description

MCM 6 requires the development and implementation of an operation and maintenance and training program to reduce and prevent stormwater pollution from public facility operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbance, and stormwater system maintenance.

#### Benefit

Leading by example on public facilities and projects provides an opportunity to demonstrate and teach proper techniques to other landowners, and it is available on a routine and ongoing basis.

#### Compliance

Compliance with the post-construction stormwater management in new development and redevelopment minimum control measure requires implementation of BMPs in Part I., Section C.5 of the Permit for a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The minimum point total requirement increases to 6 points beginning in year 2023.

A table containing the BMP summary, the measurable goal, the implementation schedule, and points per activity is included in Appendix B: Table 6.

A description of each planned BMP is included in the table below. Additional information and examples are provided after the table.

**Table 3-6. Planned BMPs to meet MCM 6 requirements.**

BMP ID	BMP Summary	Responsible Staff	Points			
			2021	2022	2023	2024
P P/G H - 04	Implement a program, with guidance to municipal staff or third-party contractors, to ensure any municipal vehicle or other mechanical equipment washing is conducted in a manner which ensures the wash water is disposed of in the sanitary sewer or otherwise receives proper treatment prior to discharge to the environment.	PWD	2	1	1	1
P P/G H - 05	Implement a program for street sweeping in which the street sweepings are collected and disposed of properly or recycled/reused if possible.	PWD	3	2	2	2
P P/G H - 06	Develop an employee training program to ensure permittee's staff understand what actions they can take in the workplace to minimize stormwater pollution.	PWD	1	1	1	1
P P/G H - 08	Develop, implement and keep updated an online storm sewer map accessible to the public.	PWD	3	2	2	2
Total points per year			9	6	6	6

### **P P/G H – 04, 06**

The Good Housekeeping for Municipal Facilities Stormwater Pollution Prevention Program addresses both BMPs. Facility inspections are done quarterly with a copy of each inspection and employee training logs kept inside the binder at the facility.

The following videos are available for checkout from MARC. If you would like to use these videos for any staff training or public education session, contact: Watershed Planner, 816-701-8233.

- Storm Warnings: Stormwater Pollution Prevention – Everyday Best Management Practices
- Ground Control: Stormwater Pollution Prevention for Construction Sites
- Stormwater Pollution Prevention: A Drop in the Bucket
- Rain Check: Stormwater Pollution Prevention for MS4s
- IDDE (Illicit Discharge Detection and Elimination)- A Grate Concern

### **P P/G H – 05**

This BMP is achieved through the City's Street Sweeping Program.

### **P P/G H - 08**

Posted to webpage as of 2021.

## SECTION 4: TOTAL MAXIMUM DAILY LOAD (TMDL) REGULATED POLLUTANTS

This section requirement is not applicable to this permit. No action is required at this time for TMDL BMP's and Surface Watering Monitoring as there are no identified TMDLs impacting streams within or adjacent to the municipality.

### TMDL Best Management Practices (BMPs)

Compliance is not required; however, the City already implements the following BMPs.

**Table 4-1. Planned BMPs to meet TMDL requirements.**

BMP ID	BMP Summary	Points			
		2021	2022	2023	2024
TMDL -01	Install pet waste stations which include a glove/bag dispenser with signage and waste can to encourage pet waste disposal at parks, trails, rest areas or other public lands owned by the permittee.	1	1	1	1

### TMDL -01

This BMP is achieved through Public Works.

## SECTION 5: WATER QUALITY MONITORING FOR TMDL ASSESSMENTS

This section requirement is not applicable to this permit. No action is required at this time for TMDL BMP's and Surface Watering Monitoring as there are no identified TMDLs impacting streams within or adjacent to the municipality.

*Success in achieving reductions in bacteria, nutrients, and sediment will be assessed by directly monitoring in-stream concentrations and evaluating pollutant concentration trends across the permit period. The monitoring program is conducted by the Johnson County Stormwater Management Program on behalf of the cities within Johnson County.*

*Beginning in 2019, the Johnson County Stormwater Management Program implemented a rotational monitoring approach for all watersheds within the County with the objectives of:*

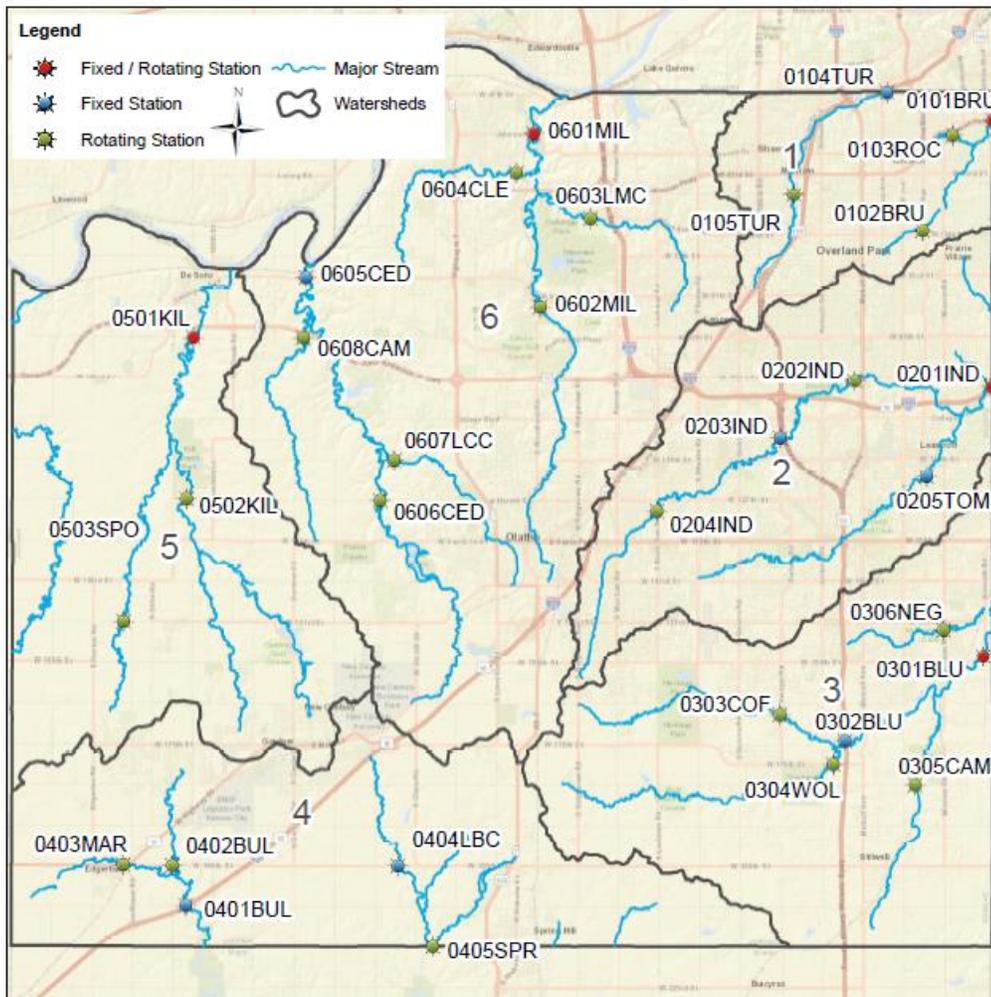
- 1. Measuring effectiveness of BMPs implemented through the City's Permit and Stormwater Management Plan;*
- 2. Evaluating MS4 discharge impacts to receiving waters;*
- 3. Investigating relative contribution of sources of specific pollutants causing designated use impairment, including nutrients, pathogens, sediment or other applicable parameters related to stormwater from areas serviced by the MS4; and*
- 4. Gather data to inform future program decisions and prioritization of activities related to the protection of water quality.*

*The monitoring program consists of both rotating and fixed monitoring stations (Table 8 and Figure 1). Rotating stations will be monitored within the rotational year. The rotational year occurs on a five-year recurrence interval and is basin specific. Fixed monitoring states will be monitored on an ongoing basis independent of the rotational year.*

**Table 5-1. Monitoring station locations and rotational monitoring year.**

Watershed Organization Grouping (Basin)	EDMR_Code	Monitoring Location	Site ID	Site Type	Rotational Monitoring Year
2	SW034A6	Indian Creek at Marty St.	0202IND	rotating	2019
2	SW035A6	Indian Creek at Switzer Rd.	0203IND	fixed	2019
2	SW036A6	Indian Creek at Blackbob Rd.	0204IND	rotating	2019
2	SW037A6	Indian Creek at State Line Rd.	0201IND	fixed	2019
2	SW038A6	Tomahawk Creek at Roe Ave.	0205TOM	fixed	2019
6	SW002A6	Camp Creek at 95th St.	0608CAM	rotating	2020
6	SW007C6	Cedar Creek at 127th St.	0606CED	rotating	2020
6	SW008A6	Cedar Creek at 83rd St.	0605CED	fixed	2020
6	SW009A6	Clear Creek at Woodland Dr.	0604CLE	rotating	2020
6	SW010A6	Little Cedar Creek at 119th St.	0607LCC	rotating	2020
6	SW011A6	Little Mill Creek at Tomahawk Golf Course	0603LMC	rotating	2020
6	SW012A6	Mill Creek at Johnson Dr.	0601MIL	fixed	2020
6	SW007A6	Mill Creek at 87th Ln.	0602MIL	rotating	2020
3	SW014A6	Blue River at Kenneth Rd.	0301BLU	fixed	2021
3	SW015A6	Camp Branch at 183rd St.	0305CAM	rotating	2021
3	SW016A6	Coffee Creek at Switzer Rd.	0303COF	rotating	2021
3	SW017A6	Negro Creek at Mission Rd.	0306NEG	rotating	2021
3	SW018A6	Wolf Creek at 179th St.	0304WOL	rotating	2021
3	SW019A6	Blue River at Hwy 69	0302BLU	fixed	2021
1	SW020A6	Brush Creek at State Line Rd.	0101BRU	fixed	2022
1	SW021A6	Brush Creek at Roe Ave.	0102BRU	rotating	2022
1	SW022A6	Rock Creek at Mission Rd.	0103ROC	rotating	2022
1	SW023A6	Turkey Creek at Lamar Ave.	0104TUR	fixed	2022
1	SW024A6	Turkey Creek at 67th St.	0105TUR	rotating	2022
4	SW025A6	Bull Creek at 199th St.	0402BUL	rotating	2023
4	SW005B6	Bull Creek at Interstate 35	0401BUL	fixed	2023
4	SW027A6	Little Bull Creek at 199th St.	0404LBC	fixed	2023
4	SW028A6	Martin Creek at Hwy 56	0403MAR	rotating	2023
4	SW029A6	Spring Creek at 215th St.	0405SPR	rotating	2023
5	SW030A6	Captain Creek at 103rd St.	0504CAP	rotating	2023
5	SW001A6	Kill Creek at 95th St.	0501KIL	fixed	2023
5	SW032A6	Kill Creek at 127th St.	0502KIL	rotating	2023
5	SW033A6	Spoon Creek at 151st St.	0503SPO	rotating	2023

Figure 1. Locations of Fixed and Rotating Monitoring Stations



### Water Quality Monitoring Protocol

Water quality samples will be collected from all fixed monitoring stations, as well as monitoring stations in the rotational basin, a minimum of six times per year between April and September regardless of streamflow conditions (Table 9). Additionally, water quality samples will be collected from rotational basins (fixed and rotational monitoring sites) during a minimum of three storm events per year between April and September. Storm events are defined as the streamflow conditions that generally correspond to a rainfall event that is greater than or equal 0.25 inches.

Water quality samples are collected as grab samples and pH, Dissolved Oxygen, Temperature, and Specific Conductance measurements are collected in the field at the time of sampling. Other information that is collected in the field at the time of sample collection includes rainfall, streamflow, stream level, and stream velocity.

*Samples are analyzed at the Johnson County Wastewater Laboratory. Samples are analyzed for Total Phosphorus as P (mg/L), Ortho-Phosphorus as P (mg/L), Total Kjeldahl Nitrogen (mg/L), Nitrate plus Nitrite as N (mg/L), Total Suspended Solids (mg/L), Turbidity (NTU), and E. Coli bacteria (MPN).*

*Johnson County shall report data for water quality monitoring annually to KDHE and an annual report describing water quality conditions and including all data collected will be provided to the City.*

## SECTION 6: PERMIT COMPLIANCE ACTIVITIES AND SCHEDULES

### Year 2019:

- Annual report for 2018 submitted to KDHE by February 28, 2019

### Year 2020:

- Annual report for 2019 submitted to KDHE by February 28, 2020

### Year 2021:

- Updated Stormwater Management Plan submitted to KDHE by February 28, 2021
- Annual report for 2020 submitted to KDHE by February 28, 2021
- The City must implement sufficient listed BMPs to achieve minimum point requirements for 2021.

### Year 2022:

- Annual report for 2021 submitted to KDHE by February 28, 2022
- The City must implement sufficient listed BMPs to achieve minimum point requirements for 2022.

### Year 2023:

- Annual report for 2022 submitted to KDHE by February 28, 2023
- Provide report (in PDF format) on effectiveness of source controls and structural BMPs to attenuate pollutant discharge and achieve the measurable goals as well as a summary of water quality data from stream monitoring sites. The report must be submitted to KDHE with the 2022 Annual Report by February 28, 2023.
- The City must implement sufficient listed BMPs to achieve minimum point requirements for 2023.

### Year 2024:

- Annual report for 2023 submitted to KDHE by February 28, 2024
- The City must implement sufficient listed BMPs to achieve minimum point requirements for 2023.

## **SECTION 7: MODIFICATIONS TO THE STORMWATER MANAGEMENT PLAN**

This SMP will be evaluated annually and modifications to the Plan, if any, will be submitted with the annual report.

For minor BMPs modifications/replacement: Within 60 days of a determination by the permittee or date of written notification from KDHE, the permittee shall modify the BMP if modifications are needed to maintain a program in compliance with this permit.

For major BMP modifications/replacement: These major modifications are defined as ones which normally take more than 60 days to construct and/or implement. Within 60 days of a determination by the permittee or date of notification from KDHE, the permittee shall provide a plan and schedule for the update/replacement of the BMP. The plan and schedule are subject to KDHE approval.