OVERLAND PARK
KANSAS

ABOVE AND BEYOND. BY DESIGN.

STORMWATER QUALITY MANAGEMENT PLAN

City of Overland Park, Kansas

National Pollutant Discharge Elimination System

Municipal Separate Storm Sewer System

Phase II Permit

Kansas Permit No: **M-MO28-SU01**

NPDES Permit No: **KSR410026**

Submitted: **February 28, 2020**

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1.0 Introduction

In accordance with the Kansas Water Pollution Control Municipal Separate Storm Sewer System (MS4) Permit (issued December 6, 2019) and authorization to discharge under the National Pollutant Discharge Elimination System (NPDES), the City of Overland Park, KS (City) is required to develop a Stormwater Quality Management Plan (SQMP) and update the plan as needed. The SQMP is designed to reduce the discharge of pollutants from its drainage systems to the maximum extent practicable. This plan outlines stormwater program activities, monitoring requirements, reporting requirements, and responsible parties for implementing activities and best management practices to improve water quality in Overland Park.

Kansas Permit Number: **M-MO28-SU01**
NPDES Permit Number: **KSR410026**

Permit Effective: **January 1, 2020**
Permit Expiration: **December 31, 2024**

SQMP Prepared and Submitted: **February 28, 2020**

1.1 Program and Legal Authority

In 2001, the City's Governing Body passed an ordinance (OPMC 15.06 - "Stormwater Management Program and Utility") to create a comprehensive city-wide Stormwater Management Program to include meeting the mandates of the the Kansas Water Pollution Control General MS4 Permit and Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES). In that ordinance, the Public Works Department was designated as the lead for the City's implementation of the Stormwater Management Program. The City maintains legal authority to implement the programs outlined in the SQMP through several ordinances passed to meet municipal needs and permit requirements.

1.2 Program Funding

The Stormwater Utility (SWU) was created in 2001 and implemented on January 1, 2002 for the purpose of funding a comprehensive Stormwater Management Program. SWU revenue is generated through a property tax mill and a user fee based on the area of impervious surface on a parcel of land. The SWU is utilized to fund stormwater maintenance and capital improvements, stormwater engineering and operations, and the NPDES permit program. Funding provided by the SWU will continue to provide program stability, facilitate NPDES compliance and allow for long-term planning of investments, maintenance enhancements and staffing needs.

1.3 Program Outcomes

The primary outcomes of the SQMP are as follows:

- Maintain compliance with state and federal permit requirements.
- Improve attitudes, knowledge and awareness of stormwater and water quality pollution.
- Encourage positive behavioral changes.
- Reduce pollutant loads in surface waters.
- Improve water quality by addressing urban runoff and illicit discharges.
- Improve the water quality of jurisdictional surface waters and other receiving water bodies.

1.4 City Specific Information

City Population and Land Use Composition

The City population, as of the 2010 census, is 173,372, while the 2018 estimated population is 192,536 . Overall, the City incorporates 81 square miles with the following land use compositions:

Residential…….....….....35.8%

Vacant/Agriculture.....24.2%

Right of Way…….....…...…16.5%

Parks Open Space.…….....….....10.1%

Public/Semi Public.....…….....5.62%

Commercial.....3.77%

Office.…….....…….....2.70%

Industrial.…….....….....1.31%

Land Cover Composition

The 81 square miles of incorporated land within the City, includes land cover ranging from dense suburbs in the north to sparsely populated woodland and farmland in the south. The City is represented by the following land cover types:

Herbaceous/Cultivated.....37.6%

Impervious Surface.....…….....34.2%

Forest.....27.0%

Water.…….....….....1.20%

MS4 Conveyance System

The existing MS4 serving the City is composed of curbs, gutters, catch basins, culverts, pipes, and ditches that collect and convey stormwater for discharge to receiving streams. The list below represents the current inventory of MS4 structures in the City:

Storm Sewer Pipe.....3,574,273 linear feet

Storm Sewer Inlet.....29,095 each

Junction Box.....5,304 each

Box Culvert.....1,253 each

Ditch Liner.....14.25 miles

City-owned detention ponds.....9 total

2.0 Plan Management

The Stormwater Engineering Section, within the Engineering Division of the Public Works Department, is responsible for the overall management of the SQMP. Appendix 2 lists departments and key staff positions responsible for implementing various activities and provisions of the plan.

2.1 Plan Implementation Teams

- The Stormwater Engineering Section - The section provides direction and long term planning for programs and activities in the SQMP. The section meets annually to review the SQMP and make changes and/or updates to the plan as needed. The goal is to work collaboratively with all City Departments to implement an effective and efficient SQMP
- NPDES Compliance Team - The team creates program strategies, implements requirements and creates a framework of accountability for implementing the goals of the SQMP. The team is composed of the following groups that meet as needed and include staff from each department or section significantly involved with the SQMP.
    - Public Education Planning Group - The multi-departmental group includes individuals in the City who plan events, educational opportunities, request a speaker series, school education programs and the publishing of education material. This group also includes outside individuals and partners (listed in Section 2.2 below) who help plan regional events and regional water quality messages.
    - Public Involvement Planning Group - The multi-departmental group includes a handful of individuals who plan outreach events, stream cleans, inlet stenciling and environmental restoration workdays. This group is also tasked with planning and implementing public comment opportunities regarding Minimum Control Measures 1 and 2.
    - Pollution Prevention/Good Housekeeping Group - The group includes municipal staff who manage a City facility and/or oversee compliance activities regarding the Stormwater Pollution Prevention Plans at each high risk facility.

2.2 Partnerships

The City works closely with local municipalities, Johnson County and other regional organizations to successfully fulfill permit requirements. Partnering organizations include:

- Johnson County Government: including the Johnson County Stormwater Management Program (JOCO SMP), Johnson County Stormwater Advisory Council and the Johnson County Department of Health and Environment. JOCO SMP provides funding for specific activities within Minimum Control Measures (MCMs) 1 and 2. They also lead collaboration opportunities and planning meetings for all municipalities in the County.
- Mid-America Regional Council (MARC): including the Water Quality Education Committee and the Heartland Conservation Alliance. MARC leads a committee of representatives from local governments and environmental organizations to develop a regional water quality public education program to meet regional needs in the bi-state area specific to MCMs 1 and 2
- K-State Research and Extension – implements "Kansas Healthy Yards and Communities", an environmental initiative which partners with JOCO SMP, the City of Overland Park and other local municipalities provide free soil testing for residents and the annual Healthy Yards Expo.
- Blue Valley & Shawnee Mission School Districts - Partnership developed to better support and fund water quality K-12 education at schools within the City of Overland Park. This program also seeks to provide students with greater opportunities to participate and become involved in environmentally beneficial activities in the City.

2.3 Measuring Program Success

The City is dedicated to implementing SQMP goals, activities and best management practices (BMPs) to exceed the desired outcomes of the program. In addition to measuring progress toward overall program goals, individual programs will be evaluated continuously to assess the effectiveness of the program and long term outcomes of the SQMP. Each activity and BMP will be assessed annually to determine efficiency and effectiveness at addressing pollutants of concern (pollutants of concerns).

3.0 Minimum Control Measures

As required by Part I.C of the permit, the following section outlines the City's six (6) Minimum Control Measures (MCMs) implemented to improve water quality and prevent pollution to the MS4. For each MCM the following is provided:

- **BMP:** A general description of the Best Management Practice (BMP) to be implemented to meet the specific MCM outcome.
- **Activity:** Description of the specific actions to be taken to implement each BMP.
- **Measurable Goal:** BMP design objectives or goals that quantify the progress of program implementation and performance of BMP. They are objective markers or milestones that track the progress of program BMPs in reducing pollutants to the MEP.
- **BMP Evaluation:** Assessment activities for evaluating the effectiveness of the BMP.
- **Timeline:** A timeline for implementation of each activity, estimate of years to implement, interim milestones and frequency within the five (5) year permit cycle.
- **Staff Implementation:** Specifies the job class(es) and department(s) responsible for developing and coordinating the BMPs as well as completing each activity.

MCM #1: Public Education and Outreach

This minimum control measure 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.

Program Overview

Public education was identified by the EPA as one of the areas where cities could see the best return in their stormwater management programs. An informed and knowledgeable community is crucial to the success of a stormwater management program by creating opportunities for the public to take direct action to improve the health and sustainability of their community and build support for program goals making initiatives more effective.

The City uses many different pathways to disseminate education and outreach materials to residents in a broad way to reach a variety of stakeholders. The City's partnerships with Johnson County Stormwater Management Program, MARC, and other local communities help to combine resources and reduce program redundancy which results in a coordinated and unified water quality program. The SQMP education campaigns continue to focus on educating residents on stormwater pollution, responsible lawn care, and keeping chemicals and yard debris out of streams and storm drains.

Desired Outcome

The desired outcome of the Public Education & Outreach program is to develop a comprehensive plan that aims to increase residents' and businesses' awareness of water quality issues and facilitates opportunities for direct action, ultimately resulting in behavior change.

Program Assessment

The overall success of the Public Education and Outreach program will be measured through the implementation of the components of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this MCM for the previous program year. In addition, BMP effectiveness will also be measured specifically by tracking the following:

- Articles and publications produced and distributed.
- Educational resources provided to residents and community groups.
- Residents education and traffic to environmental webpages.
- Students educated through City initiated programs.
- Presentations and outreach event participation.
- Resident survey results.

Targeted Pollutants of Concern

Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Septic systems (Installation, operation and maintenance)	X	X						
Pet and wildlife waste	X	X						
Business (Restaurants, landscapers, power washers, carpet cleaners, kennels, farms, construction, etc.)	X	X	X	X	X	X	X	X
Residents (Pools, yard waste, painting, carwashing, car/equipment maintenance, lawncare, pest removal, etc.)	X	X		X	X	X	X	X

MCM #1: Public Education and Outreach

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline 1 2 3 4 5
1.1	Implement a multi-media education campaign for individuals, businesses and organizations focusing on stormwater pollutants.	1.1.1	Produce and distribute environmental education media through print, webpages, newsletters and social media.	Produce 10 articles per year.	Continuous
				Track website traffic.	Continuous
				Produce 10 social media posts. Track posts and impressions.	Continuous
		1.1.2	Participate in local events to engage residents and distribute educational materials.	Participate in 5 local events each year.	Continuous
		1.1.3	Produce audience specific water quality/stormwater pollution education targeting specific pollutants of concerns and/or their sources throughout the City.	Develop and implement outreach and education materials for residents and community groups. Track materials provided.	Continuous
				Provide Request a speaker Program. Track annual speaking opportunities and participants.	Continuous
				Develop and implement outreach and education materials for businesses. Track materials provided.	Continuous
		1.1.4	Partner with the MARC Water Quality Education Committee and participate in a regional stormwater education program.	Regional Education Campaign, Print Media, KC Metro Regional Survey, Webinars and Training, Grant Program.	Continuous
		1.1.5	Increase awareness of pet waste contributions to bacteria impairments and encourage behaviors that reduce bacteria.	Partner with pet licensing to target education materials. Track number of materials provided.	Continuous
				Install pet waste bags dispensers in city parks.Track number of dispensers and bags used.	Continuous
		1.1.6	Conduct a survey to determine resident awareness, target education and measure program effectiveness.	Conduct a survey through MARC and/or JOCO SMP when deemed necessary. Incorporate Results into SQMP.	Continuous
		1.1.7	Provide an interactive map of the storm sewer system on the City website.	Track website traffic.	Continuous
1.2	Provide K-12 stormwater quality education.	1.2.1	Continue to implement a program that educates students in grades K-12 on stormwater pollution, water quality and pollutants of concerns.	Develop and implement an educational program. Track number of students involved and program progress.	Continuous

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Public Works Dept.	Planning & Development Dept.	Other City Departments
*Water Quality Specialist Erosion Control Coordinator Engineering Technician Staff Assistant	Environmental Programs Coordinator Neighborhood Programs Coordinator	Communications Assistant City Forester IT Programmer

(*= indicates primary contact for MCM)

Non-City Partners
Blue Valley & Shawnee Mission School Dists. Johnson County Stormwater Management Prog. K-State Research & Extension Mid-America Regional Council Heartland Conservation Alliance

3.2 MCM #2: Public Involvement and Participation

This minimum control measure consists of creating opportunities for individuals and organizations to provide public comment and recommendations regarding BMPs and measurable goals and directly participate in activities to reduce the contamination of stormwater.

Program Overview

The City continues to provide public participation opportunities for residents to take part in. By getting residents directly involved we educate them on stormwater pollution, improve the environment in which they live and promote community ownership of stormwater quality problems and solutions. The City always has the goal of increased community partnerships and involvement and continues to look for new opportunities to expand the program.

Desired Outcome

The desired outcome of the Public Involvement & Participation program is to facilitate opportunities for residents to take direct action in protecting and enhancing the natural and built environment and offer opportunities to participate in stormwater program development.

Program Assessment

The overall success of the Public Involvement and Participation program will be measured through the implementation of the components of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, BMP effectiveness will be measured specifically by tracking the following:

- Community involvement events and participation
- Cost-share program projects and participants
- Events held and volunteer participation
- Public notices issued

Targeted Pollutants of Concern

Targeted Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Stormwater Runoff (Impervious surface contamination, erosion, land cover)	X	X	X	X	X	X	X	
Stream and Riparian Area Mismanagement (erosion, runoff, land cover, yard waste, dumping)	X	X	X			X		
Illicit Discharges (Dumping of HHW, yard waste, petroleum products, and garbage)	X	X			X	X	X	X

MCM #2: Public Involvement and Participation

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
2.1	Maintain a program to promote participation in activities that target stormwater pollutants	2.1.1	Provide an event for homeowners that raises awareness for the benefits of stormwater treatment, provided by Johnson County Stormwater Management Program.	Provide a biennial event to promote the installation of stormwater treatment practices.		X		X	
		2.1.2	Provide voluntary STF Cost-Share Program for residents provided by the Johnson County Stormwater Management Program.	Apply for program as funds are available. Provide funding and program to applicable residents.	Continuous				
		2.1.3	Provide an involvement opportunities for residents that raises awareness for the importance of healthy streams.	Provide a program for annual community stream cleans. Track participation.	Continuous				
				Provide a program for annual environmental restorations and riparian tree plantings at City parks. Track participation.	Continuous				
				Develop a water quality themed education/involvement program at a City facility. Track progress.	Continuous				
				Provide a program for inlet marking to prevent pollution. Track participation.	Continuous				
		2.1.4	Continue to promote and participate in the Soil Testing program, provided by Johnson County Stormwater Management Program.	Increase participation annually through outreach, education and demonstration.	Continuous				
2.2	Provide opportunity for public input on the Stormwater Management Plan	2.2.1	Solicit input on PEO and PIP MCMs.	Utilize the Overland Park Environmental Advisory Council for program input.	X		X		X
				Contact program participants for feedback on events, education and involvement opportunities. Track comments.		X		X	
		2.2.2	Post the City MS4 permit, SQMP and annual reports on the City website.	Post materials and update annually with SQMP changes and annual report documents.	Continuous				
		2.2.3	Provide opportunity for the public to comment on ordinance changes.	Provide opportunities when they occur.	Continuous				

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Public Works	Planning & Development Dept.	Parks & Recreation Dept.
*Water Quality Specialist Erosion Control Coordinator	Environmental Programs Coordinator Neighborhood Programs Coordinator GIS Associate	City Forester Events & Education Coordinator Supv. Educational Programs

(*= indicates primary contact for MCM)

Non-City Partners
Johnson County Stormwater Management Prog. K-State Research & Extension

3.3 MCM #3: Illicit Discharge Detection and Elimination

This minimum control measure 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.

Program Overview:

Direct discharges of waste can present significant localized impacts to both public health and the environment. Investigating and eliminating illicit discharges and enforcing the Stormwater Pollution Ordinance are the primary objectives of the program.

Desired Outcome:

The desired outcome of the Illicit Discharge Detection and Elimination program is to determine the type and sources of illicit discharge and maintain the legal, technical, and educational means needed to eliminate discharges that are a threat to water quality.

Program Assessment:

The overall success of the Illicit Discharge Detection and Elimination program will be measured through the implementation and enforcement of the Stormwater Pollution Ordinance (OPMC 7.58 “Stormwater Pollution to Storm Sewers and Surface Waters”). Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, BMP effectiveness will also be measured by tracking the following:

- Public complaints
- Staff trainings and interdepartmental referrals
- Number of inspections conducted, response time, pollutants and location
- Enforcement actions
- Number of outfalls inspected and suspect outfalls investigated

Targeted Pollutants of Concern

Targeted Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Stormwater Pollution (Illegal dumping, orphan waste, impervious surface contamination)	X	X		X	X	X		X
Accidental Spills (Vehicular wrecks, municipal operations, maintenance)				X	X	X		
Business (Illegal dumping, illicit connections to MS4, grease traps, cleaning waste, maintenance)	X	X			X	X		X
Septic systems (Installation, operation and maintenance)	X	X						

MCM #3: Illicit Discharge Detection and Elimination

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
3.1	Employee education and training.	3.1.1	Train City staff on detecting and reporting illicit discharges.	Hold annual trainings on detection, response and mitigation of illicit discharges.	Continuous				
				Distribute Illicit Discharge Response Matrix to applicable staff.	Continuous				
3.2	Implement and enforce a program to detect and eliminate illicit discharges within City limits.	3.2.1	Respond to, investigate and track all potential illicit discharges.	Investigate all potential illicit discharges and track the number of cases and inspections.	Continuous				
		3.2.2	Maintain a public reporting mechanism.	Maintain public Customer Service Response (CRS) system.	Continuous				
		3.2.3	Implement a Dry Weather Monitoring program.	Inspect 25% of identified outfalls, and perform further investigations for all outfalls determined to be “suspect” or “obvious” for pollution.	Continuous				
				Conduct a desktop assessment annually to identify high priority areas and rate outfalls for future monitoring.	Continuous				
		3.2.4	Regulate septic system installation and usage. Respond to complaints.	Track the number of permits issued, inspections, complaints received, cases and investigations.	Continuous				
		3.2.5	Maintain an interactive storm sewer system map to assist in tracking pollution sources.	Review annually and update as needed.	Continuous				
3.3	Review and Update Ordinance, Policies and Procedures.	3.3.1	Implement and Review Stormwater Pollution Ordinance.	Review once every permit cycle and update as needed.	X				X
		3.3.2	Implement and Review and update Illicit Discharge Response Matrix with involved staff.	Review annually and update as needed.	Continuous				
		3.3.3	Implement and Review Illicit Discharge Investigation SOPs.	Review annually and update as needed.	Continuous				
		3.3.4	Implement and Review Dry Weather Monitoring SOPs.	Review annually and update as needed.	Continuous				
		3.3.5	Continue to develop an internal coordination plan between City departments for response and reporting of spill events.	Finalize an internal coordination plan by Year 5.					X

*SQMP timeline: 2020 (Year 1), 2021 (Year 2), 2022 (Year 3), 2023 (Year 4), 2024 (Year 5)

Staff Implementation:

Public Works Dept.
*Water Quality Specialist Stormwater Interns Stormwater Maintenance Supv.

Planning & Development Dept.
Environmental Programs Coordinator Code Compliance Officer Building Safety Team Supervisor Multi-Disciplined Code Officer

Other City Departments
Fire Captain Police Captain Public Works Maint. Mngr.

(*= indicates primary contact for MCM)

Non-City Partners
Johnson County Health & Environment KDHE Bureau of Env. Field Services

3.4 MCM #4: Construction Site Stormwater Runoff Control

This minimum control measure includes developing, implementing and enforcing a program to reduce pollutants in stormwater runoff to the MS4 from 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 acres.

Program Overview:

If uncontrolled, land disturbance activities can generate significant loads of sediment which can impact downstream water bodies. Plan review, site inspection and enforcement of the Erosion and Sediment Control Ordinance are the primary objectives of the program.

Desired Outcome:

The desired outcome of the Construction Site Stormwater Runoff Control program is to develop, implement and enforce a plan to reduce pollutants from construction activities that result in a land disturbance of greater than or equal to one acre.

Program Assessment:

The overall success of the Construction Site Stormwater Runoff Control program will be measured through the implementation and enforcement of the Erosion and Sedimentation Control Ordinance (OPMC 16.200 - “Erosion and Sediment Control”). Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, BMP effectiveness will also be measured by tracking the following:

- Plans reviewed
- Inspections and results
- Enforcement actions
- Complaints received
- Training opportunities and participation

Targeted Pollutants of Concern

Targeted Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Land disturbance construction activities (erosion, land cover, runoff)	X		X					
Construction activities (refuse, concrete washout, track out, maintenance)	X		X		X	X		

MCM #4: Construction Site Stormwater Runoff Control

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
4.1	Implement and enforce a program for the construction industry to reduce pollutants in stormwater runoff from land disturbance activities disturbing 1 acre or more or part of a larger common plan.	4.1.1	Prior to issuance of an LDP, require an authorized NOI for Stormwater Construction Runoff.	Request a copy of NOI and keep on file.	Continuous				
		4.1.2	Review submitted erosion and sediment control plans.	Review all sediment and erosion control plans.	Continuous				
		4.1.3	Hold pre-construction meetings to clarify BMPs for sites.	Require pre-construction meetings as needed.	Continuous				
		4.1.4	Map land disturbance sites.	Track permits and link database to GIS	Continuous				
		4.1.5	Implement inspection program of land disturbance sites.	Inspect land disturbance sites based on inspection prioritization guidance and standard inspection form.	Continuous				
		4.1.6	Enforce Erosion and Sediment Control Ordinance.	Implement escalating enforcement of construction sites as directed in enforcement policy.	Continuous				
		4.1.7	Maintain a public reporting mechanism.	Maintain public CRS system.	Continuous				
		4.1.8	Provide the StormWatch website to disseminate real-time rainfall data.	Track website traffic.	Continuous				
4.2	Review and update City ordinance, policies, specifications, and details.	4.2.1	Review Construction Specifications and Construction Details.	Review biennially and update as needed.	X		X		X
		4.2.2	Review standard for single family residential BMPs.	Review biennially and update as needed.	X		X		X
		4.2.3	Review Inspection and Enforcement Guidelines.	Review biennially and update as needed.		X		X	
		4.2.4	Review Erosion and Sediment Control Ordinance.	Review ordinance once every permit cycle and update as needed.	Continuous				
4.3	Reduce stormwater pollution from construction site runoff for city administered public improvements.	4.3.1	Require Certified Water Pollution Control Manager (WPCM) and Environmental Inspector (EI) during construction phase for projects 1 ac or greater that are administered by PW.	Track number of projects that utilize WPCM and EI	Continuous				
4.4	Provide training and education opportunities for City staff, engineering and construction industry.	4.4.1	Implement a quality assurance program involving supervisors and other project managers to make site visits during land disturbance activities of a project.	Supervisory and project managers throughout the City will make multiple visits to a project to ensure compliance.	Continuous				
		4.4.2	Provide resources related to BMP selection, installation and maintenance.	Number of resources made available. Review annually and update as needed.	Continuous				
		4.4.3	Provide training opportunities to designers and contractors.	Provide annual training opportunities..	Continuous				
		4.4.4	Provide classroom and field training to city staff.	Provide annual training opportunities	Continuous				

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Public Works Dept.
*Erosion Control Coordinator Civil Engineer - Project Manager Construction Inspector

Planning & Development Dept.
Manager, Engineering Services Construction Inspector Building Safety Team Supervisor Multi-Disciplined Code Officer

(*= indicates primary contact for MCM)

3.5 MCM #5: Post-Construction Stormwater Management in New Development and Redevelopment

This minimum control requires the development, implementation and enforcement of a program to address post-construction stormwater runoff from both new development and redevelopment 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.

Program Overview:

Conversion of undeveloped property to developed landscape increases both the volume of stormwater 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.

The Stormwater Treatment program lessens stormwater pollution from developments using innovative designs including structural and non-structural BMPs; implementing and enforcing the Stormwater Treatment Ordinance are the primary objectives of the program.

Desired Outcome:

The desired outcome of the Post-Construction Stormwater Management program is to develop, implement and enforce a plan to treat, store and infiltrate runoff onsite to reduce flows and improve water quality for new development and redevelopment.

Program Assessment:

The overall success of the Post-Construction Stormwater Management program will be measured through the implementation and enforcement of the Stormwater Treatment Ordinance (OPMC 16.210 - “Stormwater Treatment”). Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, BMP effectiveness will also be measured by tracking the following:

- Permits and certifications issued
- Training opportunities and participation
- Quality assurance reviews
- Public complaints

Targeted Pollutants of Concern

Targeted Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Land disturbance post-construction activities (erosion, land cover, runoff)	X		X					
Post-Construction activities (refuse, illegal dumping, maintenance, runoff)	X		X		X	X		

MCM #5: Post-Construction Stormwater Management in New Development and Redevelopment

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
5.1	Review and update ordinance standards, specification and checklists.	5.1.1	Review Stormwater Treatment Ordinance.	Review once every permit cycle and update as needed.	Continuous				
		5.1.2	Review Stormwater Treatment Design and Construction Standards.		Continuous				
		5.1.3	Review Stormwater Treatment Construction Plan Review Checklist.		Continuous				
		5.1.4	Review Stream Setback Ordinance.		Continuous				
5.2	Provide training and education opportunities	5.2.1	Provide training opportunities to designers and contractors for private STFs.	Provide training biennially.		X		X	
		5.2.2	Provide training opportunities for STF plan review staff.	Provide training annually.	Continuous				
5.3	Implement and enforce a program to address post-construction runoff from new development and redevelopment projects	5.3.1	Require maintenance agreements of private STFs to ensure maintenance and repair of facilities.	Agreement required prior to permit issuance. Track maintenance agreements.	Continuous				
		5.3.2	Enforce Stormwater Treatment Ordinance.	Develop and implement enforcement policy	Continuous				
		5.3.3	Require a post-construction certification of private STFs.	Certification required before permit closure. Track certifications.	Continuous				
		5.3.4	Require maintenance and inspection certification for all STFs.	Initial certification required 1 year after installation and every 2 years thereafter. Track certifications.	Continuous				
		5.3.5	Maintain an inventory detailing the types and locations of private STFs.	Track private STFs through Tidemark and map all STFs in GIS.	Continuous				
		5.3.6	Develop and implement a quality assurance program for private STFs to evaluate program compliance.	Staff to inspect a random sampling of installed STFs annually.	Continuous				
		5.3.7	Develop guidance for post-construction BMP selection on Public Works projects.	Develop guidance and implement.	Continuous				
		5.3.8	Maintain a public reporting mechanism.	Maintain public CRS system.	Continuous				
		5.3.9	Maintain an inventory of platted stream corridors within City boundaries.	Map all platted stream corridors and report total acreage of new stream corridor.	Continuous				

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Planning & Development Dept.
Manager, Engineering Services Engineering Technician Construction Inspector GIS Analyst

Public Works Dept.
*Erosion Control Coordinator Civil Engineer - Project Manager Stormwater Maintenance Supervisor

(*= indicates primary contact for MCM)

3.6 MCM #6: Pollution Prevention and Good Housekeeping for Municipal Operations

This minimum control measure 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.

Program Overview:

The program examines and alters actions to help ensure a reduction in the amount and type of pollution that: collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways and from poor maintenance of storm sewer systems. The Pollution Prevention and Good Housekeeping program focuses on preventing and reducing pollutant runoff from municipal operations and practices.

Desired Outcome:

The desired outcome of the Pollution Prevention and Good Housekeeping program is to implement an operation and maintenance plan to reduce stormwater pollution from municipal operations activities.

Program Assessment:

The overall success of the Pollution Prevention and Good Housekeeping program will be measured through the implementation of facility SWPPPs, employee training, street sweepings and infrastructure inspection conducted as part of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, BMP effectiveness will also be measured by tracking the following:

- Stormwater inspections, cleanings and repair
- Staff trainings
- Facility SWPPPs developed and inspections
- Street sweepings
- Tons of debris removed

Targeted Pollutants of Concern

Targeted Potential Pollutant Source	Nutrients	Bacteria	Sediment	Metals	Oil/Grease	Trash	Pesticides	HHW
Stormwater Pollution (Illegal dumping, orphan waste, impervious surface contamination)	X	X		X	X	X		X
Accidental Spills (Vehicular wrecks, municipal operations, maintenance)				X	X	X		
Municipal Operations (Vehicle/equipment maintenance, infrastructure maintenance, construction, landscape management, snow/ice operations)	X		X	X	X	X	X	X

MCM #6: Pollution Prevention and Good Housekeeping for Municipal Operations

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
6.1	Employee education and training.	6.1.1	Train City staff on pollution prevention and good housekeeping in daily operations.	Hold annual training for targeted City staff on pollution prevention, good housekeeping and spill response..	Continuous				
6.2	Reduce stormwater pollution from municipal operation activities.	6.2.1	Develop and Implement a Pollution Prevention Program for City-owned facilities.	Review the program guidance document annually and update as needed.	Continuous				
				Continue to implement individual SWPPPs for City facilities with high stormwater pollution potential.	Continue				
				Continue to implement an inspection program for all City-owned facilities as detailed in the program guidance document.	Continue				
				Reassess all City facilities for stormwater pollution risk by Year 2..		X			
		6.2.2	Maintain an interactive storm sewer system map.	Review annually and update as needed.	Continuous				
		6.2.3	Continue to implement a comprehensive snow/ice operations pollutant reduction program.	Reduce pollutants from snow operations through the use of calibrated material spreaders, GPS and application rate tracking, targeted spread rates, pavement temperature sensors, pre-wetting agents, and an emphasis on anti-icing. Track usage of material and application events.	Continuous				
		6.2.4	Continue to implement a comprehensive street sweeping program.	Residential, collector and thoroughfare streets will be swept twice per year.	Continuous				
		6.2.5	Continue to implement a program of systematic inspection and maintenance of public thoroughfare STFs.	Inspect all STFs at a minimum of every 2 years. Number of annual maintenance completed.	Continuous				
		6.2.6	Continue to implement a program of systematic stormwater structure inspections, cleaning, and repairing.	Inspect inlets annually, pipes annually, box culverts every 3 years, bridges every 2 years and ditch liners every 3 years. Track number of annual repairs and cleanings.	Continuous				

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Public Works Dept.
*Water Quality Specialist
Public Works Maintenance Manager
Stormwater Maintenance Supervisor
Work Management Systems Administrator

Parks & Recreation Dept.
City Forester
Recreation Supervisor
Superintendent, Farmstead
Supervisor, Arboretum

Other City Departments
Police Chief/Captain
Fire Chief/Captain
Fire Risk Management Officer
Facilities Management Supervisor

(*= indicates primary contact for MCM)

4.0 Total Maximum Daily Loads

Total Maximum Daily Load (TMDL) regulated pollutants and impaired streams are listed below:

Impaired Stream	TMDL Regulated Pollutant		
	Bacteria	Nutrients	Sediment
Indian Creek	X		
Tomahawk Creek	X		
Coffee Creek	X	X	X
Wolf Creek	X	X	X

4.1 Best Management Practices for TMDLs

All six of the minimum control measures are designed to reduce pollutants in stormwater runoff to the maximum extent practical. Those BMPs already detailed in the MCM tables above, especially targeting bacteria, nutrients, and sediment are indicated as such.
The TMDL table below details BMPs which are not part of any other MCM, and are strictly used to assess and/or address TMDL impairments. These BMPs include measurable goals and a timeline of implementation.

BMP #	BMP	Act #	Activity	Measurable Goal	*Timeline				
					1	2	3	4	5
7.1	Analyze and address results of TMDL Monitoring provided by JOCO SMP..	7.1.1	Review TMDL monitoring data provided by JOCO SMP annually and make changes to BMPs as necessary.	Annual review of TMDL monitoring data.	Continuous				
7.2	Continue to imp. the Surface Water Health Monitoring Program for all surface waters in the City.	7.2.1	City staff will monitor physical, chemical and biological health indicators to determine areas of concern and water quality trends.	Sample jurisdictional streams, creeks and rivers to the maximum extent practical.	Continuous				
				Determine areas of concern and further assess locations. Track sampling events	Continue				
				Sample all City-owned lakes to the maximum extent practical.					
				Track Harmful Algal Blooms and nutrient loading to determine lakes of concern for further action.					
		7.2.2	Implement bacteria monitoring (*E.coli)* into the Dry Weather Monitoring program.	Test all “suspect” or “obvious” pollution rated outfalls for bacteria. Track number of positive and negative bacteria samples.	Continue				
7.3	Implement Pilot projects for structural BMPs.	7.3.1	Identify opportunities to incorporate structural BMPs based on monitoring results and targeted pollutants	Track progress of opportunities to treat regulated TMDLs/pollutants of concerns	Continuous				

*SQMP timeline: 202019 (Year 1), 20210 (Year 2), 20221 (Year 3), 20232 (Year 4), 20243 (Year 5)

Staff Implementation:

Public Works Dept.	Parks & Recreation Dept.	Non-City Partners
*Water Quality Specialist Stormwater Interns	City Forester Supervisor, Parks Maintenance	Johnson County Stormwater Mgmt. Prog.

(*= indicates primary contact for MCM)

4.2 Mapping

- A map of the permit area is included as Appendix 3.
- All MS4 infrastructures are mapped, provided online, and updated continuously.

4.3 Monitoring Requirements

All requirements for monitoring TMDL impaired surface waters in the City of Overland Park have shifted to Johnson County, Kansas (M-KS52-SU02) pursuant to language in the NPDES MS4 Permit, Part II, Section C (page 47).

Appendix 1 - List of Acronyms

BMPs	Best Management Practices
City	City of Overland Park, Kansas
EI	Environmental Inspector
EPA	U.S. Environmental Protection Agency
KDHE	Kansas Department of Health & Environment
MARC	Mid-America Regional Council
MCM	Minimum Control Measure
MEP	Maximum Extent Practical
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
Permit	NPDES MS4 Phase II General Permit for City of Overland Park, Kansas
SQMP	Stormwater Quality Management Plan
STFs	Stormwater Treatment Facilities
SWPPP	Stormwater Pollution Prevention Plan
SWU	Stormwater Utility Fee
TMDL	Total Maximum Daily Load
WPCM	Water Pollution Control Manager

Appendix 2 - Program Management Contacts

Legally Responsible Person for Permit:

Bill Ebel, City Manager

Designated Permit Compliance Contact:

Lorraine Basalo, City Engineer

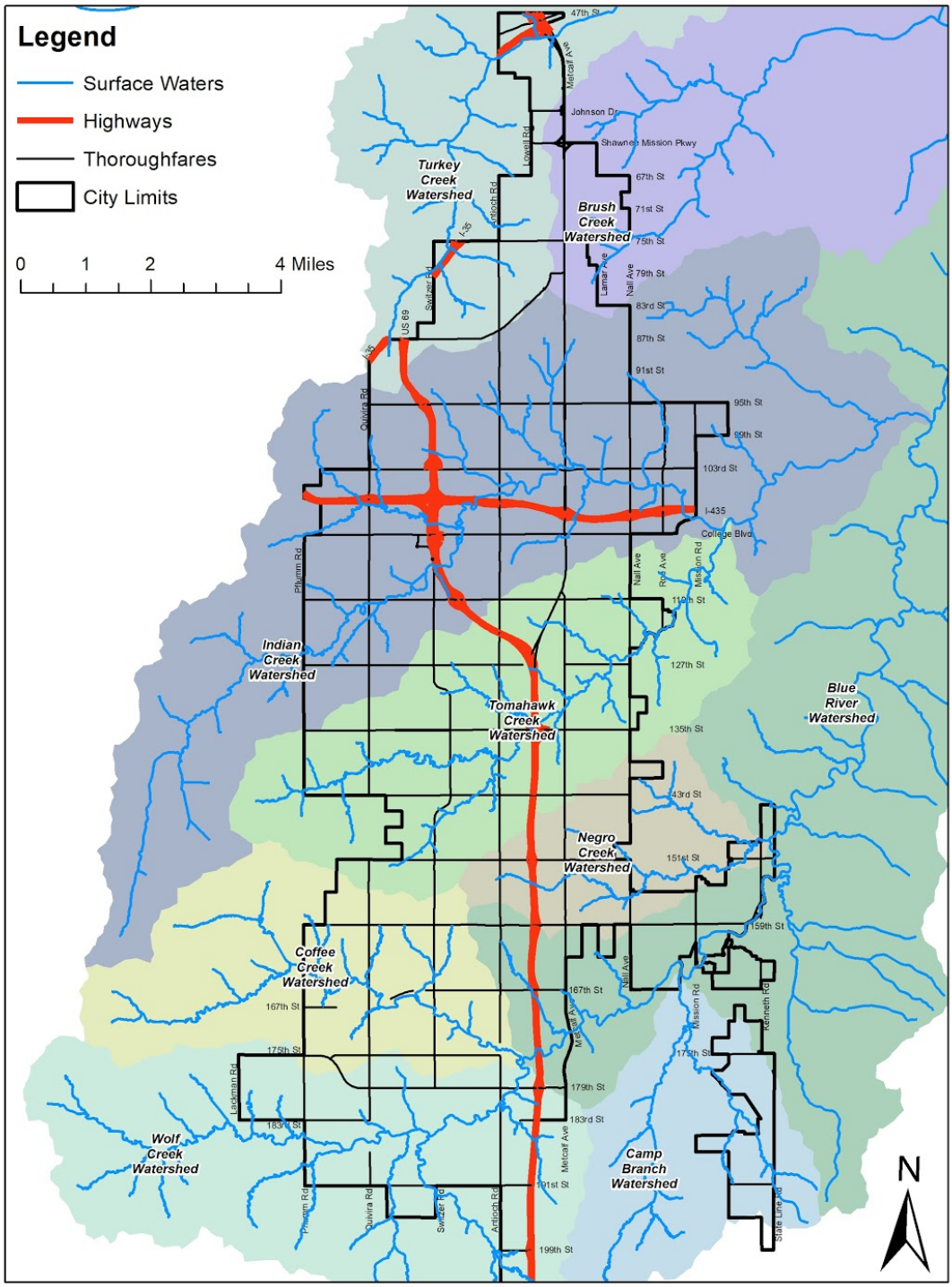
913-895-6023

lorraine.basalo@opkansas.org

Operational Contacts

- Stormwater Quality Management Program:
  - Lauren Garwood, Supervisory Civil Engineer
  - 913-895-6012
  - lauren.garwood@opkansas.org

- MCM 1-3, 6 & TMDLs:
  - Ian Fannin-Hughes - Water Quality Specialist
  - 913-895-6172
  - ian.fannin-hughes@opkansas.org

- MCM 4 & 5:
  - Patty Ogle - Erosion and Sediment Control Coordinator
  - 913-895-6264
  - patty.ogle@opkansas.org

Appendix 3 - Map of Permit Area