

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0130401
Owner:	City of Independence
Address:	111 East Maple, Independence, MO 64051-0519
Continuing Authority:	City of Independence
Address:	111 East Maple, Independence, MO 64051-0519
Facility Name:	Independence Municipal Separate Storm Sewer System MS4
Facility Address:	17221 E. 23 rd Street, Independence, MO 64057
Legal Description:	See Pages 2 – 3
UTM Coordinates:	See Pages 2 – 3
Receiving Stream:	See Pages 2 – 3
First Classified Stream and ID:	See Pages 2 – 3
USGS Basin & Sub-watershed No.:	See Pages 2 – 3

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

The City of Independence (permittee) is the fifth largest city in the State of Missouri with a population of 123,011 according to the 2020 U.S. Census with an approximate area of 78.3 mi² and population density of 1,566 population/mi². The permittee owns and operates their Phase I Medium (based on the 1990.U.S. Census) Municipal Separate Storm Sewer System (MS4). The MS4 is comprised of man-made, engineered components that are designed or developed to convey or transport stormwater within the permittee's jurisdiction.

This permit authorizes only stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250 RSMo, Section 640.013 RSMo and Section 644.051.6 of the Law.

September 1, 2023
Effective Date

August 31, 2028
Expiration Date


John Hoke, Director, Water Protection Program

FACILITY DESCRIPTION:

The following is a listing of representative major stormwater outfalls with the stormwater outfall's majority land use designation that discharge stormwater from the permittee's MS4 to waters of the state. For UTM Coordinates, X = easting coordinates and Y – northing coordinates. This NPDES permit covers all discharges from the permittee's outfalls for both major and non- major outfalls, unless regulated under a separate NPDES permit.

OUTFALL 001

Legal Description	Sec. 13, T49N, R3 IW, Jackson County
UTM Coordinates:	X = 388985.91, Y = 4324046.52
Receiving Stream:	Tributary to Burr Oak Creek
First Classified Stream and ID:	Presumed Use Streams; (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010207

OUTFALL 002

Legal Description	Sec. 22, T49N, R32W, Jackson County
UTM Coordinates:	X = 376246.48, Y = 4324104.95
Receiving Stream:	Tributary to Rock Creek
First Classified Stream and ID:	Presumed Use Streams; (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010305

OUTFALL 003

Legal Description	Sec. 17, T49N, R31W, Jackson County
UTM Coordinates:	X=382672.15, Y=4325138.71
Receiving Stream:	Tributary to Little Blue River
First Classified Stream and ID:	Presumed Use Streams; (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010207

OUTFALL 004

Legal Description	Sec. 06, T49N, R3 I W, Jackson County
UTM Coordinates:	X = 381437.00, Y = 4327871.30
Receiving Stream:	Spring Branch (C)
First Classified Stream and ID:	Spring Branch (C) WBID# 5004 303(d)
USGS Basin & Sub-watershed:	103001010207

OUTFALL 005

Legal Description	Sec. 28, T49N, R3 IW, Jackson County
UTM Coordinates:	X=384182.705, Y=384182.705
Receiving Stream:	East Fork Little Blue River (C)
First Classified Stream and ID:	East Fork Little Blue River (C) WBID# 428
USGS Basin & Sub-watershed:	103001010205

OUTFALL 006

Legal Description	Sec. 36, T50N, R31W, Jackson County
UTM Coordinates:	X = 389162.65, Y = 4329168.22
Receiving Stream:	West Fire Prairie Creek (C)
First Classified Stream and ID:	West Fire Prairie Creek (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010208

OUTFALL 007

Legal Description	Sec. 28, T50N, R31W, Jackson County
UTM Coordinates:	X=383851.08, Y=4331518.71
Receiving Stream:	Tributary to Little Blue River
First Classified Stream and ID:	Presumed Use Streams (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010208

OUTFALL 008

Legal Description	Sec. 25, T49N, R32W, Jackson County
UTM Coordinates:	X = 379243.77, Y = 4321934.46
Receiving Stream:	Tributary to Camp Creek (C)
First Classified Stream and ID:	Presumed Use Streams (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010206

OUTFALL 009

Legal Description	Sec. 29, T49N, R31W, Jackson County
UTM Coordinates:	X = 382348.934, Y = 4320841.907
Receiving Stream:	Little Blue River (P)
First Classified Stream and ID:	Little Blue River (P) WBID# 422 303(d) Metro No-Discharge
USGS Basin & Sub-watershed:	103001010206

OUTFALL 010

Legal Description	Sec. 02, T49N, R32W, Jackson County
UTM Coordinates:	X = 377136.589, Y = 4328664.202
Receiving Stream:	Tributary to Mill Creek
First Classified Stream and ID:	Presumed Use Streams (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010306

OUTFALL 011

Legal Description	Sec. 04, T49N, R32W, Jackson County
UTM Coordinates:	X=374803.93, Y=4328357.18
Receiving Stream:	Sugar Creek (C)
First Classified Stream and ID:	Sugar Creek (C) WBID# 5065
USGS Basin & Sub-watershed:	103001010305

A. COVERAGE, AUTHORIZATION AND RESTRICTIONS

1. This Missouri State Operating Permit (permit) authorizes stormwater discharge from the Phase I Municipal Separate Storm Sewer System (MS4) owned or operated by the City of Independence (permittee) to waters of the state.
2. The following non-stormwater discharges are authorized by this permit provided they are not identified by either the permittee or the Missouri Department of Natural Resources (Department) as contributing significant amounts of pollutants to waters of the state. The permittee shall incorporate appropriate control measures in the Stormwater Management Program if any of the non-stormwater discharges listed below are identified as significant sources of pollutants.
 - a. Water line and fire hydrant flushing;
 - b. Landscape irrigation;
 - c. Rising ground water;
 - d. Uncontaminated ground water infiltration;
 - e. Uncontaminated pumped ground water;
 - f. Potable water sources;
 - g. Foundation drains;
 - h. Air conditioning condensate;
 - i. Irrigation water;
 - j. Springs;
 - k. Water from crawl space pumps;
 - l. Footing drains;
 - m. Lawn watering;
 - n. Flows from riparian habitats and wetlands;
 - o. Street wash water;
 - p. Emergency fire-fighting activities;
 - q. Individual residential car washing;
 - r. Dechlorinated residential swimming pools.
3. This permit does not authorize non-stormwater discharges except where such discharges are:
 - a. In compliance with a separate NPDES permit, or
 - b. Identified by and in compliance with Section A.2 of this permit.
4. This permit does not serve as coverage for facilities or activities that require a separate Missouri State Operating Permit.
5. If the regulated MS4 owns or operates oil water separators which are used to exclusively treat stormwater, this permit authorizes the operation of oil water separators solely for the treatment of stormwater. The oil water separators must be appropriately operated and sized per manufacturer's or engineering specifications. The specifications and operating records must be made accessible to Department staff upon request. Oil water separator sludge is considered used oil; sludge must be disposed of in accordance with 10 CSR 25-11.279.
6. This permit does not affect, remove, or replace any requirement of the Endangered Species Act; the National Historic Preservation Act; the Comprehensive Environmental Response, Compensation and Liability Act; or the Resource Conservation and Recovery Act. Determination of applicability to the above mentioned acts is the responsibility of the permittee. Additionally, this permit does not establish terms and conditions for runoff resulting from silvicultural activities listed in Section 402(l)(3)(a) of the Clean Water Act.
7. This permit does not transfer liability for a spill from the entity or entities responsible for the spill to the permittee or relieve the entity or entities responsible for a spill or the permittee from applicable federal, state, or local requirements.

B. SPECIAL CONDITIONS

1. The permittee shall implement control measures and other management practices to reduce pollutants in stormwater discharge to the Maximum Extent Practicable (MEP) from the MS4 to waters of the state for the goal of attainment with Missouri's Water Quality Standards. Specific requirements are listed in Parts D and E of this operating permit.

2. The permittee shall implement and enforce a comprehensive Stormwater Management Program per the requirements listed in this operating permit in accordance with the federal Clean Water Act (CWA) §402(p)(3)(B)(iii), appropriate federal regulations under 40 CFR 122.26, and with the Missouri Clean Water Law §644, RSMo, and its implementing regulations under 10 CSR 20-6.200.
3. The permittee shall ensure they have adequate legal authority via established or subsequently established statute, ordinance, contract(s), or other regulatory mechanisms consistent with federal and state regulations to provide full implementation of their Stormwater Management Program per Part D, and other terms and conditions of this operating permit.
4. The full implementation of this operating permit and the SWMP, which includes implementation schedules developed by the permittee, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the CWA Section 402(k). However, the permit may be reopened and modified, or alternatively revoked and reissued, to ensure corrective action(s) are being implemented to reduce the discharge of pollutants to the MEP if the Department determines that the permittee is causing or creating significant exceedances of Missouri's Water Quality Standards. If such action is determined appropriate by the Department, a notification will be given to the permittee at a minimum of 30 days prior to the action being conducted; and
5. Integrated Planning: It is the intent of both the permittee and the Department that this permit does not constrain the permittee's efforts on identifying affordable and cost-effective solutions to address the most significant sources of pollution in accordance with the permittee's Integrated Plan, which prioritizes investments based on problem significance, community priorities, solution effectiveness, and affordability.

C. TOTAL MAXIMUM DAILY LOAD

1. The permittee shall develop a Total Maximum Daily Load (TMDL) Assumptions and Requirements Attainment Plan (ARAP) if any area of the MS4 is identified in an EPA-approved or established TMDL with an applicable Wasteload Allocation (WLA). The permittee shall implement steps toward attainment of applicable WLA in accordance with 40 CFR 122.44(k)(2) and (3) as implemented through this permit. The TMDL ARAP shall be incorporated into the SWMP and include, at a minimum, the following:
 - a. A process to identify potential sources of the pollutant(s), actions to be taken to address those sources within the permittee's MS4 discharging to the waterbody of concern, a prioritization of those actions, and a schedule including beginning and ending milestones by month and year. The schedule for the implementation of the TMDL ARAP is not limited to the term of this operating permit (i.e., 5 years) as attainment can take years or even multiple permit terms;
 - b. Best Management Practices (BMPs) developed or designed with a purpose of reducing the pollutant(s) of concern. Each BMP shall contain a description of the BMP, the purpose of the BMP, and the expected result of the BMP.
 - c. Measurable goals shall be established for each BMP or group of BMPs. Each measurable goal shall contain a statement clearly indicating how it will determine the appropriateness of identified BMPs and progress toward the expected results of the BMP. Measurable goals shall be quantifiable; however, if it is not feasible to utilize a measurable goal that is quantifiable, then the permittee shall provide justification why utilizing a measurable goal is infeasible. If applicable, measurable goals shall also utilize interim and completion milestone dates and a periodic frequency of measurement to document progress. It is recommended that interim and final milestone dates are established with a format of month and year. If the format of month and year cannot be utilized, the permittee shall ensure that schedules have the minimum format of 1st, 2nd, 3rd, 4th, and 5th year of the operating permit.
 - d. An iterative process to be utilized by the permittee that determines if the BMP is ineffective, the plan to address ineffective BMPs, and the general process used to replace or revise ineffective BMPs.
2. If the permittee is subject to Part C.1 of this permit, then the permittee shall draft and submit the TMDL ARAP to the Department as soon as practicable but no later than 30 months after the date EPA approves or establishes the TMDL or 30 months after the effective date of this operating permit, whichever is later. The initial TMDL ARAP is to be submitted to the Department's Water Protection Program, MS4 Coordinator at MS4@dnr.mo.gov or P.O. Box 176, Jefferson City, MO 65102. All other revisions are to be included in the permittee's Annual Report.

3. If the Department approves the TMDL ARAP, it will be presumed that the TMDL ARAP is affordable by the permittee. However, if the Department disapproves the TMDL ARAP and requires any additional or different controls or expenses, the Department will conduct an affordability analysis in support of the disapproval unless waived by the permittee.
4. The deadline for the TMDL ARAP may be extended by request of the permittee and with written approval by the Department.
5. If the TMDL ARAP has been submitted to the Department but has not received approval, then the permittee is not required to implement any action listed in their TMDL ARAP and shall notify the Department of this in their Annual Report.
6. If the permittee has received Department approval, the permittee shall implement their TMDL ARAP in accordance to schedules established in the TMDL ARAP. Implementation of all TMDL ARAP control measures shall be documented and retained by the permittee with the permittee's SWMP and made available to the Department or EPA upon request.
7. If the permittee has an approved TMDL ARAP, then the permittee shall provide a summary of the controls that list the BMPs, the expected result of the BMPs, how the measurable goals are utilized to document the effectiveness of the BMPs, and the status of the measurable goals in the permittee's Annual Report.
8. The permittee may demonstrate that no additional controls are needed beyond the successful implementation of the minimum control measures (MCMs) listed in Part E of this permit, which includes modifications to BMPs or measurable goals, for the goal of attainment with the TMDL's assumptions and requirements. The demonstration is subject to Department approval. If the permittee is to provide a demonstration that no additional controls are needed, they shall contact the Water Protection Program's MS4 Permitting Coordinator to begin the process.
9. The permittee may submit an Integrated Plan as an approach for the implementation of the TMDL's assumptions and requirements. Review and rating of the portion of an Integrated Plan specific to the TMDL's assumptions and requirements is subject to the same requirements as the TMDL ARAP.
10. The permittee may revise their approved TMDL ARAP, and if revised, the permittee shall provide written notification to the Department for substantive revisions. Substantive revisions are as follows:
 - a. Addition of new components, controls, or requirements to the TMDL ARAP;
 - b. Replacing or modifying ineffective or unfeasible BMPs or measurable goals in accordance to the permittee's iterative process;
 - c. Replacing or modifying time schedules;
 - d. Modifying the iterative process; and
 - e. Other rationales as determined appropriate by the permittee.
11. If the TMDL ARAP is revised in accordance with item 10 of this part, then the Department shall review and rate the revised TMDL ARAP in accordance with item 3 of this part.
12. Exemptions to Part C:
 - a. If the EPA-approved or established TMDL indicates that this permittee does not cause or contribute to the impairment addressed by the TMDL, then the permittee is not required to develop and implement any action contained in Part C of this permit.
 - b. If the permittee is already subject to an existing TMDL and is under an existing agreement (e.g., Settlement Agreement, Abatement Order, etc.) with the Department to address the TMDL's assumption and requirements, then the permittee is not required to develop and implement any action contained in Part C of this permit.
 - i. If such an agreement exists, then the permittee shall submit the status of implementation to the Department with the Annual Report.

D. STORMWATER MANAGEMENT PROGRAM

1. The permittee shall implement a Stormwater Management Program and document the following terms and conditions in their SWMP for each of the MCMs located in Part E:
 - a. BMPs developed or designed with a purpose of reducing stormwater pollution. The SWMP shall contain a description of the BMP and the purpose or expected result of the BMP;

- b. Measurable goals established for each BMP or in conjunction of multiple BMPs. Each measurable goal shall contain a statement clearly indicating how it will be established to determine the appropriateness of identified BMPs and progress toward the expected results of the BMP. Measurable goals shall be quantifiable unless it is not feasible to quantify. If the measurable goal is not to be quantifiable, then the permittee shall provide justification why it is not feasible to have a quantifiable measurable goal. If applicable, measurable goals shall also utilize interim and completion milestone dates, and a periodic frequency of measurement to document progress. It is recommended that interim and final milestone dates are established with a format of month and year. If the format of month and year cannot be utilized, the permittee shall ensure that schedules have the minimum format of 1st, 2nd, 3rd, 4th, and 5th year of the operating permit;
 - c. The person(s) and/or position(s) primarily responsible for the SWMP or for each MCM;
 - d. A description of any appropriate educational and training measures for each MCM when applicable.
 - e. An iterative process to be utilized by the permittee that documents how each BMP is evaluated and subject to replacement or modification. The permittee shall apply reasonable further progress by replacing or modifying ineffective BMPs with effective BMPs.
2. The permittee's SWMP shall be reviewed and evaluated by the Department to ensure that the SWMP is implementing the terms and conditions of this permit, the applicable federal and state stormwater regulations, and Section §402(p)(3)(B)(iii) of the Clean Water Act. If the SWMP is approved by the Department, it will be presumed affordable by the permittee. If the SWMP is found unsatisfactory by the Department and requires any additional or different controls or expenses, the Department shall conduct an affordability analysis in support of the unsatisfactory rating unless waived by the permittee. If approved, the SWMP submitted as part of the application for permit renewal shall become effective upon issuance of this permit.
 3. The permittee may revise their SWMP during the life of this permit. All substantive revisions shall require written notification by the permittee to the Department's MS4 Permitting Coordinator as a stand-alone notification. The Department shall then conduct a review and evaluation of the SWMP, or edited portion, in accordance with Part D.2. of this permit.
Substantive revisions are as follows:
 - a. Change of entire implementation of an MCM;
 - b. Substitution of programmatic BMPs for another one, if that change would alter the compliance expectations defined in the SWMP; and
 - c. Changes that are necessary to comply with the terms and conditions of this operating permit.Non-substantive revisions shall be noted in the permittee's Annual Report. Non-substantive revisions include:
 - d. Addition of new components, controls, or requirements to the SWMP;
 - e. Replacing or modifying ineffective or unfeasible BMPs or measurable goal in accordance to the permittee's iterative process;
 - f. Replacing or modifying time schedules;
 - g. Modifying the iterative process;
 - h. The addition or removal of jurisdictional areas;
 - i. Contact names per item 1.c. of this part; and
 - j. Other rationales as determined appropriate by the permittee.
 4. The permittee shall implement the Stormwater Management Program on all areas added to their jurisdiction as expeditiously as practicable but no later than one year from the addition of the new areas. If the full implementation of the Stormwater Management Program will not be completed within three (3) year of an area being added, then the permittee is required to submit status reports with their MS4 Annual Report.

E. MINIMUM CONTROL MEASURES (MCMs)

1. ***Public Education and Outreach of Stormwater Impacts***
 - a. The permittee shall continue to implement a public education and outreach program to inform the public about the impacts of stormwater discharges on waterbodies and steps the public can take to reduce pollutants in stormwater runoff. As part of the SWMP, the program shall include the following, at a minimum:
 - i. A description of how the public is targeted based on the specific group's potential to have significant stormwater impacts;
 - ii. A list of pollutants the program is developed to address, including at a minimum:
 1. Pollutants associated with the application of pesticides, herbicides, and fertilizers; and
 2. Pollutants associated with the management and disposal of used oil and toxic materials.

- iii. A description of education and outreach activities and materials specific to targeted audiences and pollutants; and
- iv. A description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from the MS4.

2. *Public Involvement and Participation*

- a. The permittee shall implement a public involvement/participation program that shall at a minimum, include the following and provide a description in the SWMP:
 - i. Opportunities for public involvement/participation in the development of the permittee's Stormwater Management Program; and
 - ii. Opportunities provided for public participation with the permittee's MS4 program.

3. *Illicit Discharge Detection and Elimination*

- a. The permittee shall continue to implement and enforce a program to detect and eliminate illicit discharges, as defined in 10 CSR 20-6.200(1)(C)7, into the permittee's MS4. As part of the Stormwater Management Program, the permittee's illicit discharge detection and elimination program shall include the following at a minimum to the extent allowable under state or local law:
 - i. A storm sewer map showing the locations of all known constructed outfalls and the names and locations of all receiving waters of the state that receive discharges from the permittee's MS4. The permittee shall describe the source of information they used for the map(s) and how the permittee plans to verify the outfall locations with field survey or field screening points. The permittee shall describe how the map was developed and how the map is regularly updated. The permittee shall make the map and map information available to the Department upon request;
 - ii. A plan to prohibit through ordinance, orders, or similar means illicit discharges into the permittee's MS4 and implement appropriate enforcement procedures and actions.
 - iii. Inspection and investigation procedures for detecting and eliminating illicit discharges;
 - iv. A program to conduct field screening at field screening points or major outfalls with the purpose of finding and eliminating illicit discharges and illegal dumping. The program shall include the following:
 - 1. A description of field screening procedures, including recording of visual observations and testing or sampling if flow is observed;
 - 2. A summary of the number of locations that will be screened annually, the areas or locations evaluated by field screening and how they were selected with be included in the MS4 Annual Report.
 - v. Procedures to prevent, contain, and respond to spills that discharge or have potential to discharge into the MS4; and
 - vi. A description of controls to limit infiltration of seepage from municipal sanitary sewers to the permittee's MS4.

4. *Construction Site Stormwater Runoff Control*

- a. The permittee shall continue to implement and enforce a program to reduce pollutants in stormwater runoff to their MS4 from construction activities on land disturbances sites that disturb one or more acres or disturb less than one acre when part of a larger common plan of development or sale that will disturb a cumulative total of one or more acres over the life of the project. As part of the Stormwater Management Program, this program shall continue implementation of the following:
 - i. Ordinances, orders, or similar means to require entities conducting land disturbance activities, in accordance with Section E.4.a. of this part, to implement and maintain erosion and sediment control BMPs at construction sites, including sanctions designed to ensure compliance to the extent allowable under state or local law;
 - ii. Requirements for construction site operators to control construction site waste that may cause adverse impacts to water quality, such as discarded building material, concrete truck washout, chemicals, litter, and sanitary waste;
 - iii. Procedures for the permittee to review pre-construction site plans for potential water quality impacts. Review elements shall be listed in the SWMP;
 - iv. Procedures for the permittee to receive and respond to public reporting of the discharge of pollutants from construction sites in coordination with the permittee's public education and outreach program;
 - v. Procedures for the permittee to inspect construction sites and enforce control measures, including prioritization of site inspections; and
 - vi. A plan designed to ensure compliance with the permittee's erosion and sediment control ordinances, orders, or similar means, including sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

5. *Post-Construction Stormwater Management in New Development and Redevelopment*

- a. The permittee shall continue to implement and enforce a program to address the quality of long-term stormwater runoff from new development and redevelopment projects that disturb one or more acres or disturb less than one acre when part of a larger common plan of development or sale that will disturb a cumulative total of one or more acres over the life of the project. This program shall ensure that stormwater controls are in place that have been designed and implemented to prevent or minimize water quality impacts. This program, at a minimum, shall include:
 - i. Ordinances or other regulatory mechanisms to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law. The permittee shall include a copy of the relevant sections within the SWMP;
 - ii. A plan to ensure adequate long-term operation and maintenance of selected BMPs, including types of agreements between the permittee and other parties (e.g., post-development landowners, regional authorities, etc.);
 - iii. Strategies developed with the purpose to minimize water quality impacts, minimize the creation of stormwater pollution, and/or utilize BMPs that remove or reduce stormwater pollution that include a combination of structural and/or non-structural BMPs appropriate for the permittee's community. In developing these strategies, the permittee shall consider:
 1. The assessment of site characteristics at the beginning of the development design phase to ensure adequate planning for stormwater program compliance;
 2. The continued implementation of a stormwater design criteria manual to contain standard sustainable site design criteria and BMP selection and design criteria to reduce water quality impacts;
 3. Buffer criteria for streams and other environmentally sensitive areas (e.g., wetlands, floodplains, etc.);
 4. Provisions for preservation of undisturbed natural areas, trees, and steep slopes, when feasible; and
 5. The development of floodplain management controls to minimize pollution with floodplain management controls.
 - iv. Inspect or require the inspection of post-construction BMPs that function to remove or reduce pollution of stormwater and ensure that all BMPs are implemented and are in working condition as designed.

6. *Pollution Prevention and Good Housekeeping for Municipal Operations*

- a. The permittee shall continue to implement an operation and maintenance program for municipal operations owned or operated by the permittee. This program shall, at a minimum, include the following:
 - i. An employee training program 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. The permittee shall describe any existing, available material the permittee plans to use, such as those available from EPA, the state, or other organizations;
 - ii. A list of all municipal operations that are impacted by this operation and maintenance program;
 - iii. Maintenance BMPs, maintenance schedules, and long-term inspection procedures for structural controls to reduce floatables and other pollutants in discharges from the MS4;
 - iv. 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. The permittee shall, at a minimum, conduct the following:
 1. Store and cover deicing chemicals and implement deicing practices to reduce the discharge of pollutants to the MS4;
 2. Street sweepings or similar activities on all curb and gutter streets and ensure the proper disposal of the street sweepings;
 3. Street design, construction, and maintenance practices that reduce the discharge of pollutants to the MS4; and
 4. Clean grated inlets, roadway stormwater inlets, and catch basins as needed;
 - v. Storage of all paints, solvents, petroleum products, and petroleum waste products (except fuels) under the control of the permittee shall not be exposed to stormwater. Sufficient practices of spill prevention, control, and/or management shall be implemented to minimize the risk of such pollutants entering the permittee's regulated MS4 or waters of the state. Any permanent containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater; and
 - vi. A plan to reduce pollutants in discharges from the permittee's MS4 associated with the application of pesticides, herbicides, and fertilizers. The plan shall include controls such as educational activities, permits, certifications, and other measures determined appropriate by the permittee for commercial applicators and distributors and controls for application in public right-of-ways and at municipal facilities.

7. Industrial and High Risk Runoff

- a. The permittee shall continue to implement a program to monitor and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities. The program shall include, at a minimum, the following:
 - i. Identify all of the activities below that discharge into the MS4:
 1. Municipal landfills;
 2. Hazardous waste treatment, storage, and disposal facilities;
 3. Industries subject to reporting requirements pursuant to Title III Section 313 of the Superfund Amendments and Reauthorization Act of 1986; and
 4. Industrial facilities that the permittee determines are contributing a substantial loading of pollutants to the MS4.
 - ii. Identify priorities and procedures for inspections and establishing and enforcing control measures for such discharges;
 - iii. A monitoring program for stormwater discharges associated with the facilities listed under items 7.a.i.1-4; and
 - iv. Alternative Certifications: In lieu of monitoring, the permittee may accept a certification from a facility that raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to stormwater and are not expected to be exposed to stormwater for the certification period. Where the permittee accepts "no exposure" certification, the permittee shall conduct at least one site inspection of the facility every five years to verify the facility's "no exposure" exemption.

8. Flood Control Projects

- a. The permittee shall consider the impacts on water quality, including adverse physical and hydrological changes, of receiving water bodies in the design of new flood management projects, consider controls that can be used to minimize impacts, and provide a description of procedures.

9. Monitoring

- a. Representative monitoring shall be conducted by the permittee on representative outfalls or field screening points with the purpose of characterizing the quality of stormwater discharging from the permittee's MS4. The monitoring program shall include the following:
 - i. Stormwater samples shall be collected from stormwater discharges from three (3) storm events annually occurring at least one (1) month apart;
 - ii. The permittee shall conduct storm event representative sampling at a minimum of six separate locations to be described in the permittee's SWMP. The Department may allow changes to the monitoring locations upon notification to the Department by the permittee in accordance with Part D.3. of this permit;
 - iii. Parameters to be sampled shall include the following at a minimum. The Department may allow changes to the parameters upon notification by the permittee in accordance with Part D.3. of this permit:
 1. Total Suspended Solids;
 2. Specific Conductivity;
 3. Chemical Oxygen Demand;
 4. E. coli;
 5. pH;
 6. Total Kjeldahl Nitrogen;
 7. Nitrate + Nitrite;
 8. Dissolved Phosphorus;
 9. Total Phosphorus; and
 10. The Department may also request additional parameters along with sampling conditions such as locations, season of sample collection, form of precipitation, and other parameters to ensure representativeness. If the Department requires additional parameters to be sampled, then the Department will submit an official written request at least one calendar year prior to the expiration date of this permit.
 11. Storm event data records shall be maintained of all analytical results, the date and duration (in hours) of the storm event(s) sampled, rainfall measurements or estimates (in inches) of the storm event which generated the runoff that was sampled, and the duration (in hours) between the storm event(s) sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.
- b. Biological Assessments. The permittee shall continue to conduct microbial source tracking (MST) as described in the approved sampling plan.

- c. Analysis and collection of samples shall be conducted in accordance with methods specified in 40 CFR 136. Where an approved Part 136 method does not exist, any available method may be used unless a particular method or criteria for method sections (such as sensitivity) has been specified in this permit.

F. REPORTING AND RECORDKEEPING

1. The permittee shall submit an annual report to the Department by March 28th of each year. The report shall cover the calendar year of (January 1 – December 31). Depending on permit issuance, the first report required by this permit may be partial. The report shall:
 - a. Provide a list of names and contact information for staff who ensure the successful implementation for each MCM;
 - b. Provide a general summary of each MCM. The summary shall include:
 - i. Overall compliance with permit conditions and SWMP;
 - ii. List of BMPs used to implement the MCM;
 - iii. A description of assessment used to determine the appropriateness of the BMPs;
 - iv. A description of the iterative process used to replace or modify any BMP or measurable goal, if applicable;
 - v. Status of the Measurable Goals for each BMP or the completion date for any measurable goal completed during the reporting period;
 - vi. An explanation for any measurable goal scheduled for completion during the reporting period that was not completed. Any modified goals or deadlines shall be listed;
 - vii. A brief summary of stormwater activities planned for the next reporting cycle and implementation schedule, if feasible;
 - viii. Any planned changes to the Stormwater Management Program or SWMP document, which may include any changes to the MCMs including changes to BMPs, measurable goals, or the iterative process;
 - ix. Summary of monitoring required by this permit by their specific MCM, which shall include a justification for any required monitoring that was not completed. The monitoring results shall be reported in a table with the analytical result. The summary shall include a general discussion of the results with respect to MEP and, if applicable, TMDL parameters; and
 - x. A summary of the permittee's TMDL ARAP, if applicable.
 - c. Electronic Discharge Monitoring Report (eDMR) Submission System. Submission System. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit) shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only Department-approved reporting method for this permit unless specified elsewhere in this permit or a waiver is granted by the Department. The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due.
2. The permittee shall retain records of any monitoring information used to complete their renewal application for this operating permit, implementation of any part of this operating permit, and implementation of any part of the permittee's SWMP for a period of at least three (3) years from the date of the sample, measurement, or analysis. This period may be extended by official request from the Department at any time. Monitoring data shall include, if applicable, the below information:
 - a. All calibrations and maintenance records;
 - b. The date, location, and time of sampling or measurement;
 - c. The individual(s) who performed the sampling or measurement;
 - d. The date(s) analyses were performed;
 - e. The individual(s) who performed the analyses;
 - f. The analytical technique or method used; and
 - g. The results of such analyses.
3. The permittee shall retain records of all activities requiring recordkeeping by the SWMP, a copy of the NPDES permit, a copy of all ordinances, policies, and formal procedures for all MCMs and records of all data used to complete the renewal application for this period for a period of at least three (3) years from the date of the report or renewal application. This period may be extended by official request of the Department at any time.
4. The permittee shall make the most recent version of their SWMP available to the Department if requested. This may be maintained and submitted electronically.

G. APPLICATION REQUIREMENTS FOR RENEWAL OF MS4 OPERATING PERMIT

1. The permittee shall submit an application for renewal of permit at least 180 days prior to the expiration date of this permit to the Department's MS4 permitting coordinator. The permittee shall provide the following information, at a minimum, in their application for renewal:
 - a. Name and mailing address of the permittee;
 - b. Name(s), address, telephone number, and email address of the permittee's main contact for their MS4 program or for each MCM;
 - c. General description of the permittee's activities that subject the permittee to MS4 requirements;
 - d. Proposed, if any, program modifications and justification for changes to BMPs, measurable goals, or the iterative process required under the SWMP or MCMs;
 - e. Proposed, if any, modification and justification for changes to activities the permittee is conducting toward attainment of applicable WLA under EPA established or approved TMDLs;
 - f. Map(s) and locational data for all stormwater outfalls from the permittee's MS4 to waters of the state. Maps and locational data shall be divided into new stormwater outfalls, if applicable, and existing stormwater outfalls and list the receiving stream;
 - g. Map(s) documenting service or jurisdictional boundary of the MS4, projected changes in land use, population densities, or projected future growth;
 - h. If any entity, which includes co-permittees or other governmental agencies, are implementing or conducting activities to satisfy the terms and conditions of the permit or stormwater management program. If applicable, the permittee shall submit:
 - i. Name and mailing address of the outside entity;
 - ii. Name(s), address, telephone number and email address of the person(s) conducting the activities for the outside entity or co-permittee; and
 - iii. Description of what the outside entity or co-permittee is conducting in satisfaction of the permit or stormwater management program;
 - i. The permittee proposed SWMP including TMDL implementation; and
 - j. A description of any service or jurisdictional area expansion subject to the permittee's Stormwater Management Program. The change in area can be documented via the map under this part, Section 1.g. above but must be clearly labeled.
2. If the Department creates and approves an application form for renewal for Phase I MS4s, then the permittee will complete and submit the renewal application form in satisfaction of this part, item 1 of this permit. If the renewal application form for Phase I MS4s permits is not completed and approved by the Department within four years of the effective date of this permit, then the permittee is not required to use the renewal application form; however, the permittee may volunteer to use the renewal application, which will suffice for Part G of this operating permit.

H. STANDARD CONDITIONS

1. *Duty to Comply:* The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law (CWL) and the Federal CWA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal.
2. It is a violation of the Missouri CWL to fail to pay required fees associated with this permit.
3. *Duty to Mitigate:* The permit holder shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
4. *Proper Operation and Maintenance:* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This condition requires the operation of backup or auxiliary facilities or similar systems installed by a permittee only when necessary to achieve compliance with the conditions of this permit.
5. *Advanced Notice:* The permit holder shall give advanced notice to the Department of any planned changes which may result in noncompliance with the terms and conditions of this permit.
6. *Inspection and Entry:* The permit holder shall allow the Department or an authorized representative (including an authorized contractor as a representative to EPA or the Department) upon the presentation of credentials and other documents as may be required by law to:

- a. Enter the permit holder's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect any facility, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the federal CWA and/or Missouri's CWL, any substance or parameter at any location.
7. *Monitoring Methods:* Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless another method is required under 40 CFR subchapters N or O or unless specified in this permit or an approved Quality Assurance Project Plan.
8. *Need to Halt or Reduce Activity Not a Defense:* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
9. *Permit Actions:* This permit may be modified, revoked, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or notification of planned changes or anticipated noncompliance does not stay any term or condition of this permit.
10. *Administrative Continuation of the Permit:* If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 10 CSR 20-6.010(10)(E) and remain in force and effect. If the permittee applies for renewal at least 180 days prior to the expiration date or in accordance with any Department extension not to exceed the expiration of this permit, permittee will automatically remain covered by the continued permit until the earlier of:
- a. Reissuance or replacement of this permit, at which time the permittee shall comply with the application conditions of the new permit to maintain authorization to discharge;
 - b. Notice of termination;
 - c. Issuance of an alternative site-specific permit or alternative general permit for MS4 discharge; or
 - d. A permit decision by the Director not to reissue this permit, at which time the permittee shall seek coverage under an alternative general or site-specific permit.
11. *Property Rights:* This permit does not convey any property rights of any sort, or any exclusive privilege;
12. *Duty to Provide Information:* The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request copies of records required to be kept by this permit; and
13. *Falsification Penalties:* Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to Sections 644.006 to 644.141 or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to Sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both. Second and successive convictions for violations under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or both.

I. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0130401
INDEPENDENCE PHASE I MEDIUM
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

Per 40 CFR Part 124.8(a) and 10 CSR 20-6.020(1)(A)2 a factsheet shall be prepared to give pertinent information regarding applicable regulations, rationale for the development of limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or permit) listed below. A factsheet is not an enforceable part of a permit.

This Factsheet is for a Phase I Municipal Separate Storm Sewer System (MS4).

PART I. FACILITY INFORMATION

Facility Type MS4:	Stormwater; Urban stormwater Runoff
Facility SIC Code(s):	9511
Facility NAICS Code:	924110
Application Date:	March 2, 2023
Expiration Date:	August 31, 2028

Facility Description:

The City of Independence (permittee) is the 5th largest city in the State of Missouri with a population of 123,011 according to the 2020 U.S. Census with an approximate area of 78.3 mi², and a population density of 1,5466 population/mi². The permittee owns and operates their medium MS4. Medium MS4s are MS4s located in an incorporated place with a population of one hundred thousand (100,000) or more but less than two hundred fifty thousand (250,000) based on the 1990 United States census.

A MS4 is defined as a conveyance or system of conveyances including roads and highways with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, paved or unpaved channels, or storm drains designed and utilized for routing stormwater, which: (1) does not include any waters of the state (as defined in Missouri's Water Quality Standards [10 CSR 20-7.031] and its implementing tables), (2) is owned and operated by the permittee, (3) is not part or portion of a combined sewer system, and (4) is not part of a publicly owned treatment works. The permittee's MS4 collects and routes stormwater from industrial, commercial, and residential areas located within the permittee's municipal boundary and discharges the stormwater to waters of the state.

MS4 Outfalls:

Outfalls listed under the Facility Description in the operating permit are representative major stormwater outfalls only; however, the NPDES operating permit covers all discharges from the permittee's outfalls into waters of the state. The permittee is required by the operating permit to have a map of all constructed MS4 stormwater outfalls that discharge to waters of the state. It was determined that only representative outfalls would be listed in the permit rather than listing all MS4 outfalls, which would otherwise add extra pages to the permit and require the operating permit to be modified anytime changes are made to any of the outfalls.

Facility Performance History:

A review of the Department's files indicates that the City was audited for its MS4 permit MO0130401 by the Kansas City Regional Office of the Department in March of 2019 and was issued a Letter of Warning. The City responded, and through a compliance agreement, was returned to compliance in 2021.

PART II. RECEIVING WATERBODY INFORMATION

The permittee's Phase I MS4 discharges stormwater into Missouri waterbodies that have designated uses in accordance with 10 CSR 20-7.031(1)(P). Below is the list of known waterbodies with designated uses that receive stormwater runoff from the permittee's Phase I MS4. The waterbodies listed below may have multiple stormwater discharges or only one stormwater outfall discharging to it.

Waterbody Name	Class	WBID	AQL
Little Blue River	P	422	AQL, IRR, LWW, SCR, WBCB, HPP
East Fork Little Blue River	C	428	AQL, IRR, LWW, SCR, WBCB, HPP
Presumed Use Stream	C	5065	AQL, IRR, LWW, SCR, WBCB, HPP
Spring Branch	C	5004	AQL, IRR, LWW, SCR, WBCB, HPP

Classes are representations of hydrologic flow volume or lake basin size per 10 CSR 20-7.031(1)(E).

Designated uses are described in 10 CSR 20-7.031(1)(F).

WBID: Waterbody Identification Number per 10 CSR 20-7.031(1)(Q) and (S)

HUC: Hydrologic Unit Code <https://water.usgs.gov/GIS/huc.html>

Water Quality Standards Search https://apps5.mo.gov/mocwis_public/waterQualityStandardsSearch.do

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. This permit, including both the MS4 and Land Disturbance parts, applies to facilities discharging to the following water body categories:

- ✓ Missouri or Mississippi River [10 CSR 20-7.015(2)]
- ✓ Lakes or Reservoirs [10 CSR 20-7.015(3)]
- ✓ Losing Streams [10 CSR 20-7.015(4)]
- ✓ Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)]
- ✓ Special Streams [10 CSR 20-7.015(6)]
- ✓ All Other Waters [10 CSR 20-7.015(8)]

EXISTING WATER QUALITY & IMPAIRMENTS

Impairments include waterbodies on the 305(b) or 303(d) list and those waterbodies or watersheds under a TMDL.

<https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/tmdls>

Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters> water quality standards protect beneficial uses of water provided in 10 CSR 20-7.031. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards.

Any regulated MS4 identified in an EPA approved or established TMDL with an applicable Wasteload Allocation (WLA) shall implement steps toward the attainment of applicable WLAs in accordance with 40 CFR 122.44(k)(2) and (3). There are currently no WLA for this MS4.

Part III. Rationale and Derivation of Permit Conditions

ADDITIONAL FEDERAL ACTS

In accordance with 40 CFR 122.49(b) and (c) the operating permit cites the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA) and places the permittee on notice that the operating permit does not affect, remove or replace the requirements or compliance determination of these acts. It is the responsibility of the permittee to determine if activities conducted within their MS4 or stormwater discharging from their MS4 are in compliance with the ESA and NHPA. Assistance in determining applicability to ESA conditions and requirements can be found in the U.S. Fish and Wildlife Service (FWS) Endangered Species webpage, at: <http://www.fws.gov/endangered/>. The FWS Information for Planning and Conservation (IPaC) web-based project planning tool that streamlines the environmental review process is highly recommended: <http://ecos.fws.gov/ipac/>. Assistance in determining applicability to NHPA conditions and requirements can be found in the Department's State Historic Preservation Office Section 106 Review, which is located at: <https://mostateparks.com/page/84261/section-106-review>. Additionally, the Advisory Council on Historic Preservation Citizen Guide to Section 106 Review, which explains the process, is located at: <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

In addition to the ESA and NHPA, this operating permit does not affect, replace or remove the requirements and compliance determinations with respect to substances not otherwise covered under a NPDES permit and is regulated by federal law under the Resource Conservation and Recovery Act or the Comprehensive Environmental Response, Compensation, and Liability Act. However, the permittee is required to implement a program to identify and control pollutants in stormwater discharges to the MS4 from any municipal or industrial facility that the permittee has determined is contributing a substantial pollutant load into their MS4,

which includes industries subject to reporting requirements under the Superfund Amendments and Reauthorization Act (SARA). Please see the section on SARA below for justification.

ANTI-BACKSLIDING:

Anti-backsliding is a provision in federal statute and regulations CWA §303(d)(4); CWA §402(o); 40 CFR 122.44(l) that requires a reissued permit to be as stringent as the previous permit with some exceptions. All renewed permits are analyzed for evidence of backsliding. Minimum Control Measures are discussed individually in Part IV of this fact sheet.

ANTIDEGRADATION:

Discharges with new, altered, or expanding flows, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. See <https://dnr.mo.gov/document-search/antidegradation-implementation-procedure>.

The Department has determined that the appropriate avenue forward for implementing the Anti-degradation requirements for the permittee is requiring the successful implementation of the permittee's Stormwater Management Program. The permit directs the permittees to develop and implement effective BMPs, develop and implement self-evaluating measurable goals, and develop and implement an iterative process (how BMPs are determined ineffective and the steps needed to replace or revise the BMPs). This approach is applicable to newly added jurisdictional areas of the permittee. This process ensures that the permittee applies Reasonable Further Progress, which subsequently ensures that the MS4s are reducing pollutants in stormwater runoff to the Maximum Extent Practicable (MEP). This selection and documentation of appropriate control measures will then serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure at 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5. The permit requires any expansion to the permittee's boundary served by their MS4 to be updated in their SWMP and is subject to the terms and conditions of the SWMP and permit. Renewal of coverage for a facility requires a review of the SWMP by the Department to assure that the selected BMPs continue to be appropriate.

APPLICATION REQUIREMENTS:

Federal regulations under 40 CFR 122.26(d) and state regulations under 10 CSR 20-6.200(5) establish application requirements for Phase I MS4s; however, these regulations were not to be required for each round of renewals, rather for the initial application to receive a Phase I MS4 operating permit. This is supported in the August 9, 1996, Federal Register Volume 61, No. 155 – Interpretative Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems (Phase I Reapplication), which states, "The scope of the initial permit application requirement was comprehensive and regulated MS4s invested considerable resources to develop these applications.

The initial applications have laid the foundation for the long-term implementation of MS4 stormwater management programs. EPA believes reapplications should focus on maintenance and improvement of these programs." In addition, Phase I Reapplication states, "The MS4 application requirements at 40 CFR 122.26(d)(1) and (2) apply to the first round permit application required of large and medium MS4s. The permit application deadlines in 40 CFR 122.26(e)(3) and (4) clearly reflect the "one time" nature of the Part I and II application requirements for large and medium MS4s. EPA has not promulgated regulations applicable to reapplication for MS4s. Requirements to demonstrate adequate legal authority, perform source identification (e.g., identify major outfalls and facility inventory), characterize data, and develop a stormwater management program should have been addressed in the initial application phase. Therefore, to request the same information again, where it has already been provided and has not changed, would be needlessly redundant. Thus, as a practical matter, most first-time permit application requirements are unnecessary for purposes of second round MS4 permit applications."

In the absence of regulations that are specific to reapplications requirements for Phase I Applications, EPA gives some suggested requirements based on 40 CFR 122.21(f) as well as the allowance of flexibility of the NPDES authority to require conditions the NPDES authority deems appropriate.

BEST MANAGEMENT PRACTICES (BMPs):

"Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas." 10 CSR 20-6.200(1)(D)1.

- BMPs can be temporary or permanent, and include structural items or non-structural practices or activities including schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, information distribution, and other management practices to prevent or reduce the discharge of pollutants.
- BMPs encompass both the enforceable terms and conditions of this permit as well as particular activities and practices selected by the permittee that will be undertaken to meet the permit requirements.
- A deficiency of a BMP means it was ineffective at providing the necessary protections for which it was designed. Factors may include cost, maintenance, non-interest by resident, structural failure, and more.
- Corrective action describes the steps the facility took to eliminate the deficiency, including replacement.

For the purpose of MS4s, BMPs can be identified as structural stormwater control measures (SCM), activities, and programmatic practices, that the permittee develops or designs, and implements with the purpose of reduction stormwater pollution. The permit establishes that the permittee is to not only develop or design and implement BMPs, but that the permittee is also required to establish the BMPs they have determined are appropriate for the implementation of the specific condition or conditions under each Minimum Control Measure. The permit requires the permittee to provide a description of the BMP as well as the purpose or expected result of the BMP.

BEST PROFESSIONAL JUDGEMENT (BPJ):

BPJs are technology-based limits derived on a case-by-case basis. BPJ limits are established in cases where Effluent Limit Guidelines (ELGs) are not available for, or do not regulate, a particular pollutant of concern. BPJ is defined as the highest quality technical opinion developed by a permit writer after considerations of all reasonably available and pertinent data or information that forms the basis for the terms and conditions of a NPDES permit.

The authority for BPJ is contained in Section 402(a)(1) of the Clean Water Act (CWA), which authorizes the NPDES authority to issue a permit containing “such conditions as the Administrator determines necessary to carry out the provisions of this Act” prior to taking the necessary implementing actions, such as the establishment of ELGs. ELGs are national regulatory standards for wastewater discharged to surface waters and municipal sewage treatment plants. EPA issues these regulations for industrial categories, based on the performance of treatment and control technology.

Previous iterations of operating permits for the permittee followed the typical layout of Phase I operating permits based on the application requirements of 40 CFR 122.26(d) with the direction that the NPDES authority (i.e., the Department) was to draft an operating permit based on information received in the permittee’s application. As noted above, this was incorrectly applied as a majority of the regulations specific to Phase I MS4s in 40 CFR 122.26(d) were to be only applied on the initial application. In contrast, when Phase II was promulgated, EPA established BMPs applicable to Phase II MS4s via the Minimum Control Measures (MCMs) under 40 CFR 122.34(b). BMPs are Technology-based Effluent Limits (TBELs), which then subjects the BMPs to BPJ case-by-case determinations.

To provide consistency between Phase I and Phase II MS4s in the State of Missouri, this permit follows the MCMs of Phase II format; however, due to requirements under 40 CFR 122.26(d) and how the permittee implements them, there are additional MCMs for Phase I. Therefore, the Phase I and II MCMs are consistently named, but not all of the conditions between Phase I and II MCMs are the same. This is due to the fact that Phase II regulations establish MCMs with some specific requirements. Phase I requirements require the permittee to create and build upon a stormwater program based on the application requirements, which can cause a Phase I to implement conditions not are not similar to the requirements under Phase II.

The approach of having Phase I MCMs appear as Phase II MCMs allows the permit writer to provide more clear requirements, which is beneficial to the permittee, and allows the permit writer to define portions of 40 CFR 122.26(d) as truly being that of an application vs. a term and condition of the permit. This approach subsequently allows both the permittee and the Department to understand the difference between the MCMs, and how compliance and non-compliance are determined.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri CWL, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

The permittee is not currently under Water Protection Program enforcement action.

COVERAGE:

In accordance with 40 CFR 122.26(a)(1)(iv) and 40 CFR 122.26(a)(3)(i), the permittee is required to obtain a NPDES operating permit for the discharge of stormwater from their MS4. The permit was drafted to provide coverage for all of the permittee’s stormwater discharges from the MS4 into waters of the state.

INTEGRATED PLANNING:

As noted in the June 5, 2012 EPA memorandum, “*Integrated Municipal Stormwater and Wastewater Planning Approach Framework*” EPA has increasingly embraced integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with states and communities to implement and utilize these approaches in its October 27, 2011 memorandum “*Achieving Water Quality through Municipal Stormwater and Wastewater Plans.*” In 2012, EPA developed an integrated planning framework that offers a voluntary opportunity for a municipality to develop an integrated plan to meet multiple CWA requirements.

The Water Infrastructure and Improvement Act (WIIA) (HR 7279), enacted on January 14, 2019, added a new Section 402(s) to the CWA to amend the CWA to include the 2012 Integrated Municipal Stormwater and Wastewater Planning Approach Framework. WIIA provides greater certainty that integrated planning provides a comprehensive path a municipality can take voluntarily to meet

CWA requirements. The new amendments require NPDES permitting authorities to inform municipalities that they can develop voluntarily an integrated plan that may be incorporated into permits, consent decrees, or administrative orders.

Integrated planning assists MS4 communities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how best to prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

METROPOLITAN NO-DISCHARGE STREAM:

Metropolitan No-Discharge Streams, per 10 CSR 20-7.031, establishes, “No water contaminant except uncontaminated cooling water, permitted stormwater discharges in compliance with permit conditions and excess wet-weather bypass discharges no interfering with beneficial uses may be allowed until interceptors are available within two thousand feet (2,000’) or a distance deemed feasible by the department, or unless construction of outfalls to alternative receiving waters not listed in Table F is deemed feasible by the department. Existing discharges include wastewater volumes up to the design capacity of existing permitted feature treatment facilities, including phased increases in design capacity approved by the department prior to the effective date of this rule. Additional facilities may be constructed to discharge to these waters only if they are intended to be interim facilities in accordance with a regional wastewater treatment plan approved by the department.”

The permittee discharges stormwater from their MS4 in accordance with their MS4 Phase I site-specific permit directly to Little Blue River, WBID 422, which is listed as a Metropolitan No-Discharge Stream.

NON-STORMWATER DISCHARGES:

This operating permit allows for non-stormwater discharges from the permittee’s MS4 if the permittee or Department determined these sources are not substantial contributors of pollutants. In accordance with 40 CFR 122.26(d)(2)(iv)(B)(1) the following category of non-stormwater discharges or flows are to be addressed by the permittee where such discharges are identified by the permittee as sources of pollutants to waters of the state. Thus, the permittee is the primary source of determination regarding if the below category of non-stormwater discharges or flows are sources of pollutants. The Department may make such determinations in the future if it is believed the permittee is not conducting serious determinations.

OIL/WATER SEPARATORS (OWS):

OWS tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer’s specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

This permit authorizes the operation of OWS for the treatment of stormwater without the requirement to obtain a separate permit. If the OWS treats water other than precipitation which has run across the property (for example: wash water, effluent from shop drains, drips, spills, etc.) the facility must obtain an MOG14 or site specific permit to cover the discharges.

PERMIT SHIELD:

Missouri statute, §644.051.16, RSMo, states “The Department shall implement permit shield provisions equivalent to the permit shield provisions implemented by the U.S. Environmental Protection Agency pursuant to the Clean Water Act, Section 402(k), 33 U.S.C. Section 1342(k), and its implementing regulations, for permits issued pursuant to chapter 644.”

CWA Section 402(k) states “Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 1319 and 1365 of this title, with sections 1311, 1312, 1316, 1317, and 1343 of this title, except any standard imposed under section 1317 of this title for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 1311, 1316, or 1342 of this title, or (2) section 407 of this title, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on October 18, 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date which source is not subject to section 407 of this title, the discharge by such source shall not be a violation of this chapter if such a source applies for a permit for discharge pursuant to this section within such 180-day period.”

The permittee is therefore shielded from new regulations or existing regulations that were subsequently determined appropriate. If the new or existing regulation is determined necessary for the permittee or for water quality, then the department will work with the permittee to determine if a change to the permittee’s SWMP or operating permit is appropriate.

PESTICIDE RULE:

The Department has developed a Pesticide General Permit MO-G870000 for point source discharges resulting from the application of pesticides to waters of the state. This permit has been developed as a result of federal requirements under NPDES. The general permit authorizes the discharge of pesticides that leave a residue in water when such applications are made into, over or near waters of the United States. The Department has determined that entities most likely affected by this permit include public health entities, including mosquito or other vector control districts and commercial applicators that service this sector. Others potentially affected by this permit include resource and land management entities such as public and private entities managing public land, park areas and university campuses, as well as utilities maintaining easements and right-of-ways, golf courses and other large residential developments which maintain a large grounds area. In addition, permits may be required for applications involving pesticide use for agricultural related activities when pesticides are applied to crops grown in or near a water of the United States.

SECONDARY CONTAINMENT:

Prior to release of stormwater in secondary containments, it must be observed for the presence of petroleum sheen and odor. Steps must be taken if petroleum sheen or odor are observed to remove the petroleum from the stormwater prior to release. All secondary containment valves must remain closed when not actively draining stormwater. Release of stormwater from secondary containment must be controlled so as not to cause physical impacts, such as forming rills, transporting solids, or scouring vegetation. If the stormwater is contaminated, the MS4 operator has the option of pumping out the secondary containment and taking it to an accepting wastewater treatment facility for treatment. Causing a sheen to be released to the environment is a violation of this permit and general water quality standards at 10 CSR 20-7.031(4)(B).

STORMWATER MANAGEMENT PROGRAM REPORTING & REPORT FREQUENCY:

In accordance with 10 CSR 20-6.200(4)(B)10, Phase I MS4s are to submit an annual report by the anniversary of the date of the issuance of the permit for the system. In agreement with the permittee, the permit establishes that the annual report shall be due March 28th of each year for the reporting period of January 1st to December 31st.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA):

In accordance with 40 CFR 122.26(d)(2)(iv)(C) and 10 CSR 20-6.200(4)(B)4.C., the permittee is required to provide a description of a program to monitor and control pollutants in stormwater discharges to the MS4 from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of SARA.

WATER QUALITY STANDARDS:

Under the CWA Section 402(p), the U.S. Congress established two different standards for the regulation of stormwater discharges, which one was for industrial activities and the other for municipal stormwater discharges from MS4s. Stormwater discharges associated with industrial activities are required to comply with NPDES permits containing technology-based effluent limitations or more stringent water quality based effluent limitations as set forth in CWA Section 301. However, in contrast, stormwater discharges from MS4s are to be regulated by permit that require controls to reduce the discharge of pollutants to the maximum extent practicable (MEP).

The MEP language contained in the CWA Section 402(p)(3)(B)(iii) represents a different technology-based standard which requires a governmental entity (e.g., municipality) to pursue sound pollutant control techniques that are both technically and economically feasible. More importantly, MEP and the CWA do not prescribe water quality-based requirements for municipal stormwater. Water quality-based requirements differ from technology-based requirements, in that water quality-based requirements are set on ambient water quality of receiving water body and applicable water quality standards; however, technology-based standards focus upon the water quality achievable by a particular or comprehensive plan of pollution control measures or technologies.

To say that water quality does not apply to MS4s is incorrect due to the fact that if MS4 is subject to a TMDL, the permittee can be required to address that TMDL using BMPs under an iterative, adaptive management approach to implementation. This is not to be an indication that numeric limitation(s) based on a Wasteload Allocation are applicable to a MS4 permittee upon subjection to a TMDL.

303(d) LIST, TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the CWA requires that each state identify waters that are not meeting water quality standards. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) List helps state and federal agencies keep track of waters that are impaired but not addressed by typical water pollution control programs. Federal regulations require permitting authorities to develop TMDLs to address impaired waters listed per Section 303(d) of the CWA. A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is impaired.

The following table includes impaired waters within the MS4 boundary that require a TMDL. Prior to the issuance of this permit, no TMDLs have been completed that include MS4 wasteload allocations. The operating permit only requires action from the permittee when the receiving stream has an approved or established TMDL. However, the operating permit does not remove any agreement, consent decree, or other legally binding documents that may have been required of the permittee.

Stream Name	Pollutant	Corresponding Outfall*	Source (DNR records)
Little Blue River 303(d)	Escherichia coli	003,005,006,007, 008, and 009	Urban runoff, storm sewers
Missouri River 303(d)	Escherichia coli	011. Outfall is 2.75 miles from Missouri River	Municipal Point Source Discharge, Nonpoint Source

* If the outfall is located 5 miles above stream, it was listed in the table above. It is believed that there are more outfalls from the permittee that discharge to the above listed waterbodies, but are not listed.

PART IV. STORMWATER MANAGEMENT PROGRAM

STORMWATER MANAGEMENT PROGRAM AND PLAN:

The Stormwater Management Program is a comprehensive and documented program to manage the quality of stormwater discharges from the MS4. The Stormwater Management Plan (SWMP) is the document explaining the implementation of the Stormwater Management Program and describing a schedule of MS4 program activities including prohibitions of practices, implementation of required practices, development of standards for urban growth, maintenance procedures, education, trainings, inspections and other management practices to prevent or reduce the pollution of waters of the state.

This permit in accordance with 10 CSR 20-6.200 and 40 CFR Parts 9, 122, 123 and 124 requires the permittee to develop and implement a SWMP. The SWMP also includes, but is not limited to, BMPs, pertinent local regulations, policies, procedures, interim milestones, measurable goals, measures of success, responsible persons/positions for each of the measurable goals, and any applicable TMDL assumptions and requirements.

Unlike other traditional point sources that utilize treatment facilities, attainment of the WLA is to be conducted via “*the iterative BMP process.*” Requiring any condition for the attainment of water quality standards in addition to the MCMs is going beyond MEP but the process for attainment of the WLA is still achieved with BMPs using the iterative process of establishing BMPs, evaluating the BMPs, and refocusing on BMPs.

However, just because a WLA for any given pollutant(s) of concern (POC) has been established in a TMDL for a MS4, additional BMPs or modifications to BMPs for the MCMs should not be required as a trigger action. Rather, the MS4 permittee subject to an effective and approved TMDL should first make a determination if the implementation of their MCMs is adequately meeting the requirements and assumptions of the TMDL. As noted in 64 FR No. 235, “*At this time, EPA determines that water quality-based controls, implemented through the iterative process today are appropriate for the control of such pollutants and will result in reasonable further progress towards the attainment of water quality standards.*” While potentially rare this does indicate that no further action may be necessary to implement the requirements and assumptions of the TMDL as the MS4 community may, through successful implementation to the MEP for each of the MCMs, have already demonstrated “*reasonable further progress.*” This, rightfully so, places the burden of support on the MS4 community; however, in order for the MS4 community to continue operating only under the six MCMs, the determination of beneficial use re-attainment must be reviewed and timely approved by applicable program staff (i.e., the MS4 Program and Watershed Protection Section staff).

If the requirements and assumptions of the TMDL are not being met, then the MS4 will need to, at a minimum, develop BMPs that target the given POC with the goal or design for the reduction of the pollutant. Due to the nature of stormwater controls via the iterative process, subsequent determinations can and should be made by the MS4 community to determine if “*reasonable further progress*” has resulted in the attainment of the WLA.

In addition to the initial determination or additional BMPs as required in the MS4 general permit, integrated planning actions may be considered as actions taken to specifically restore a waterbody’s beneficial uses. Regardless, if the MS4 permittee uses integrated planning or BMPs design to reduce pollutants, other factors need to be considered in accordance with 64 FR No. 235, which states, “*If the permitting authority (rather than the regulated small MS4 operator) needs to impose additional or more specific measures to protect water quality, then that action will most likely be the result of an assessment based on a TMDL or equivalent analysis that determines sources and allocations of pollutant(s) of concern. EPA believes that the small MS4’s additional requirements, if any, should be guided by its equitable share based on a variety of considerations, such as cost effectiveness, proportionate contribution of pollutants, and ability to reasonably achieve Wasteload reductions. Narrative effluent limitations in the form of BMPs may still be the best means of achieving those reductions.*”

In addition to the above, the TMDL portion of the permit requires the development and implementation of a TMDL Assumption and Requirement Attainment Plan (ARAP). While the TMDL ARAP is not a Schedule of Compliance actions and schedules established in the TMDL ARAP will be subjected to the federal regulations on Schedules of Compliance [40 CFR 122.47]. Specifically if the development and implementation of the TMDL ARAP is to be conducted in a period of time extending one calendar year, then the permittee will be required to report annually for either the status of the development of the plan or for the implementation of the plan based on 40 CFR 122.47(a)(3)(ii).

The time period allowed for development of the TMDL ARAP (i.e., as soon as practicable not exceeding 30 months), the Department has determined the 30 month time period is appropriate as it allows the permittee the necessary time and flexibility that is needed to ultimately achieve attainment with the TMDLs assumptions and requirements. The Department has experience in the facilitation of an adaptive Stormwater Management Program, along with EPA Region 7, with a MS4 community that addressed the assumption and requirements of an applicable TMDL. The time period to develop the adaptive program took more than 30 months, but the assumptions and requirements of the TMDL were more complex than other straight forward TMDLs. The 30 month maximum time period allows the permittee to determine or develop appropriate BMPs, measurable goals, funding sources, local votes, strategic planning, opportunity to engage interested parties and stakeholders, etc. However, it would be naïve to believe that all regulated MS4s could develop a plan in 30 months, which is why the permit also indicates that the permittee can request an extension to the 30 months. Permittees seeking approval of the extension will need to provide appropriate justification of why the extension is needed, a revised time schedule of compliance, and reason for failing to meet the 30 month maximum time; however, the allowance of extending the time period beyond 30 months is not guaranteed.

MAXIMUM EXTENT PRACTICABLE (MEP) STANDARD:

Prior to 1987, municipal stormwater was subject to the same controls as other point sources like industrial and domestic discharges, which was Section 301(b) of the CWA. However, in 1987, “Congress retained the existing, stricter controls for industrial stormwater discharges but prescribed new controls for municipal stormwater discharges,” *NRDC v. EPA*, 966 f.2d 1292, 9th Cir. 1992 (*NRDC v. EPA*). This “new control” was established in Section 402(p)(3)(B)(iii) of the CWA, which states, “*Permits for discharges from municipal storm sewers – shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, designs and engineering methods, and such other provisions as the Administrator or State determines appropriate for the controls of such pollutants.*”

The argument for “new controls” contained in the case of *NRDC v. EPA* was subsequently supported in the case of *Defenders of Wildlife v. Browner*, in which it was concluded that Section 402(p)(3)(B) of the CWA “replaces” the requirements of 301(b) of the CWA with the MEP standard for MS4 discharges, and that it creates a “lesser standard” than Section 301(b) of the CWA establishes on other types of discharges. Consequently, MEP is a technology-based standard established by Congress in Section 402(p)(3)(B)(iii) of the CWA.

For the purposes of MS4 permitting, MEP is defined as, “an iterative approach whereby the permittee will implement management measures, including structural and non-structural BMPs. MEP is a permittee-specific determination guided by the following factors: community financial capability and the need for reasonable rate/funding increases, weighing program-wide requirements against site-specific MS4 improvements, MS4 impacts to receiving waters, local priorities, watershed and/or integrated planning, MS4 size, climate, implementation schedules, hydrology, topography, geology, and MS4 capacity to perform operation and maintenance.” Compliance with the requirements of the applicable permit and any enforceable document developed to implement the applicable permit (such as the permittee’s Stormwater Management Plan) will satisfy the MEP standard.

MINIMUM CONTROL MEASURES (MCMs):

In accordance with 40 CFR 122.26(d)(2)(iv) and 10 CSR 20-6.200(4)(B)4, the permittee is to implement a set of programs and plans for the duration of the permit that reduces pollutants to the MEP. As noted above under the rationale for BPJ, the management program under 40 CFR 122.26(d)(2)(iv) and 10 CSR 20-6.200(4)(B)4 have been established with the approach and format of 40 CFR 122.34(b). Additionally, the below MCMs are implemented and built upon through the permittee’s stormwater program. Below is a description of each of the MCMs:

The terms and conditions of the permit were determined appropriate in accordance with 40 CFR 122.26(d)(2)(iv) and 10 CSR 20-6.200(4)(A), and via BPJ from 40 CFR 122.34(b)(1) for Public Education and Outreach; 40 CFR 122.34(b)(2) for Public Participation and Involvement; 40 CFR 122.34(b)(3) for Illicit Discharge Detection and Elimination; 40 CFR 122.34(b)(4) for Construction Site Stormwater Runoff Control; 40 CFR 122.34(b)(5) for Post-Construction Stormwater Management in New Development and Redevelopment; and 40 CFR 122.34(b)(6) for Pollution Prevention and Good Housekeeping for Municipal Operations.

In addition, to the listed six common MCMs typically reserved for Phase II, the permittee implements three additional MCMs. MCM #7 – Industrial and High Risk Runoff is in accordance with 40 CFR 122.26(d)(2)(iv)(C)(1) and (2). MCM #8 – Flood Control Projects is in accordance with 40 CFR 122.26(d)(2)(A)(4). MCM #9 – Monitoring is in accordance with 40 CFR 122.26(d)(2)(iv)(iii)(A) and the Biological Assessment is based on the previous operating permit and BPJ. The state regulations were not included above as they are identical to federal regulations.

For MCMs 1 – 6, there has been significant guidance written to assist regulated MS4s (Phase II) on the successful implementation of the programs; however, for the MCMs 7, 8, and 9 there is very little guidance or documentation.

MCM 1 – PUBLIC EDUCATION AND OUTREACH OF STORMWATER IMPACTS:

The permit requires the permittee to maintain a public education and outreach program to inform the public about the impacts of stormwater discharges on waterbodies and steps the public can take to reduce pollutants in stormwater runoff. Implementation of this MCM is important as an informed public community is critical for the success of a stormwater management plan. An informed public provides greater support for the permittee stormwater management program when the public has a greater understanding of the causes

of urban stormwater pollution and how each individual can take steps to reduce stormwater pollution at its source. Additionally, an informed public leads to increased compliance as they become aware of the responsibilities of the permittee, what is not allowable, and volunteerism. Public involvement provides broader public support, can shorten implementation schedules, can be an economic benefit (volunteers are little to no cost), and can provide an important cross-connection with other MCMs as well as other community and governmental programs. For more information on MCM 1, please visit: <https://www3.epa.gov/npdes/pubs/fact2-3.pdf>

MCM 2 – PUBLIC INVOLVEMENT AND PARTICIPATION:

The permit requires the permittee to maintain a public involvement and participation program. The implementation of this MCM is important because the public can provide input and assistance that may otherwise be overlooked by the permittee. For more information on MCM 2, please visit: <https://www3.epa.gov/npdes/pubs/fact2-4.pdf>

Previous versions of the permit included public involvement in the form of volunteerism in this second MCM. This language has been moved to the first MCM to reduce confusion of the overlapping language and to be more consistent with the Phase II and other Phase I MS4 permits in Missouri.

MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION:

The permit requires the permittee to implement and enforce a program that detects and eliminates illicit discharges to their MS4. One of the first parts of this MCM is the requirement of a storm sewer map. This MCM is important because discharges from MS4s often include wastes and wastewater from other non-stormwater sources. Studies suggest almost ½ of the discharge from a MS4 is not directly attributable to precipitation runoff, and a significant percentage of the discharge comes from illicit discharges. For more information on MCM 3, please visit: <https://www3.epa.gov/npdes/pubs/fact2-5.pdf>

MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL:

The permit requires the permittee to implement and enforce their program to reduce pollutants in stormwater runoff to their MS4 from construction activities with land disturbance permits. This is important due to polluted stormwater runoff from construction sites often flows to a MS4 and then discharges into a local body of water. One of the major pollutants of construction site stormwater is sediment, which is one of the most widespread pollutants affecting assessed rivers and streams, second only to pathogens. Sedimentation (as of 2005) impairs over 85,000 river and streams. To learn more about MCM 4, please visit: <https://www3.epa.gov/npdes/pubs/fact2-6.pdf>

MCM 5 – POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT:

The permit requires the permittee to implement and enforce their program to reduce pollutants in stormwater runoff from new development and redevelopment projects. This MCM is important because runoff from areas subject to new development or redevelopment has been shown to significantly affect receiving bodies of water. There are generally two forms of impacts from post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater. As runoff flows over areas altered by development, it will pick up sediment and chemicals, which become suspended in the runoff and are carried to the receiving water. The second kind of post-construction runoff impacts occur by the increase of water delivered to receiving water bodies from storm events via increased impervious surfaces, which affects the natural cycle of the stream, ecology of the stream, streambank scouring and downstream flooding. To learn more about MCM 5, please visit: <https://www3.epa.gov/npdes/pubs/fact2-7.pdf>

MCM 6 – POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS:

The permit requires the permittee to implement an operation and maintenance program for municipal operations owned and operated by the permittee. This MCM is important because it requires the permittee to examine and subsequently alter their own actions to help ensure a reduction in pollutant sources that comes from streets, parking lots, open spaces, and storage and vehicle maintenance areas. To learn more about MCM 6, please visit: <https://www3.epa.gov/npdes/pubs/fact2-8.pdf>

MCM 7 – INDUSTRIAL AND HIGH RISK RUNOFF:

The permit requires the permittee to implement a program to monitor and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities regardless of ownership. The purpose of this MCM is to identify and control pollutants that are most at risk of discharging significant amounts of pollutants to the permittee's MS4. This program can complement the permittee's Illicit Discharge Detection and Elimination program (i.e., MCM #3).

For successful implementation, the permittee's program needs to include or provide directions/links on how to obtain the list or inventory of industries that have been determined to be high-risk industrial sources. Additionally, the stormwater program needs to include (or how to obtain) the criteria the permittee uses to identify high-risk industries and include their specific criteria for condition 7.a.i.4. under this MCM.

The program also needs to include the scheduled/frequency at which inspections of these industries occur as well as how they prioritize the inspections. The program also should include the procedures the permittee uses during the inspection, which can be easily supplied with the inspection form used by the permittee (or how to obtain the inspection form). Finally, the permittee's program should also include the monitoring program, what is being monitored, and why it is being monitored.

MCM 7 also requires the permittee to develop and maintain a list of all municipal operations that are impacted by the permittee's Operation and Maintenance manual. This condition is typically located under MCM #6, but at the request of the permittee, it has been placed into MCM #7. For more information on the Industrial and High Risk program, please use the link below for the MS4 Improvement Guide, Chapter 7, page 85: https://www3.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

MCM 8 – FLOOD CONTROL PROJECTS AND DEVICES:

Stormwater management, as the permittee is well aware, is a multi-objective approach dealing with the changes in stormwater characteristics which accompany urbanization. Citizens, local officials, and other persons are most concerned about whether stormwater is in their yard, home, or businesses (i.e., loss of life and property) and not whether the stormwater is polluted. The conditions under MCM 8 are not to impede flood control, as it is in the best interest of the permittee to ensure that flood controls (new and retrofits) operate as designed, but to ensure the permittee consider impacts on water quality in the design of all new flood control projects and evaluate the existing flood control. For this condition, flood control refers to all methods used to reduce or prevent the detrimental effects of flood waters.

The permittee's SWMP will need to describe how the permittee takes water quality impacts into consideration for new and retrofit flood control projects. The considerations will also need to discuss how the permittee minimizes adverse physical and hydrological changes of the receiving water body. For more information on the Flood Control Projects and Devices program, please use the link below for the MS4 Improvement Guide, Chapter 6, page 81: https://www3.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

MCM 9 – MONITORING:

The permit requires the permittee to implement a monitoring program for representative outfalls, internal sampling stations, or instream monitoring locations. The purpose of this program is to characterize the quality of stormwater discharging from the permittee's MS4; however, not to determine if the permittee is in compliance with Missouri's Water Quality Standards. Rather, the monitoring program will assist the permittee in the evaluation of the overall effectiveness of their stormwater program along with progress and meeting their measurable goals and the iterative process. Without the assessment of their program, which includes monitoring, the permittee will not have a clear picture if their program is removing stormwater pollutants; the permittee will not know with any certainty if any part of their program needs to be modified outside of the self-evaluation and iterative process. Establishing a comprehensive monitoring program will enable the permittee to better track the progress of their SWMP and reduction of stormwater pollution.

A variety of ambient monitoring programs can be used to evaluate the impacts of stormwater discharges. This can include water column monitoring, biological monitoring, or sediment monitoring. As recognized in 40 CFR Parts 122, 123, and 124, Supplemental Information, Part VI.H.2.b.6.c.; stormwater discharges are intermittent and represent relatively short-term, shock loadings to receiving waters. Pollutants associated with stormwater discharge become associated with bottom sediments, may persist for long periods of time, and exert adverse impacts on benthic organisms. Therefore, sediment and biological community assessment techniques are appropriate methods to assess cumulative environmental effects of stormwater discharges to receiving waters. In particular, sediment and biological assessment techniques are excellent tools to help determine "hot spots" where stormwater BMP projects could be designed and implemented or locations where evaluation of the effectiveness of BMPs could be conducted. The overall strategy should prioritize stormwater pollution reduction and the documentation of reasonable further progress towards improvement of the MS4 system.

In accordance with capturing the details of the SWMP (per 40 CFR 122.48), the permittee shall consult with the Department during the program development concerning the rationale for stream selection, sampling location placement, and biological methods to assess water quality improvements. Annual reports for Phase I MS4 SWMPs are required in 40 CFR 122.42(c)(7). These annual reports shall include identification of water quality impacts, improvements, or degradation attributed to the MS4 system. If the nature of urban streams do not allow for effective biological assessment concerning MEP water quality improvements as the result of MS4 BMPs; future annual reports should provide data analysis as documentation for future modifications or adjustments to assessment methods.

Biological stream monitoring is supported in 40 CFR Parts 122, 123, and 124, Supplemental Information, Part VI.H.2.b.6.b. The Environmental Protection Agency states: "Given the complex, variable nature of storm water discharges from municipal systems, EPA favors a permit scheme where the collection of representative data is primarily a task that will be accomplished through monitoring programs during the term of the permit. Permit writers have the necessary flexibility to develop monitoring requirements that more accurately reflect the true nature of highly variable and complex discharges."

MEASURABLE GOALS:

Measurable goals are designed objectives or goals that quantify the progress of program implementation and performance of BMPs. They are objective markers or milestones that the permittee uses to track the progress and effectiveness of BMPs in reducing pollutants to the MEP. At a minimum, measurable goals should contain descriptions of actions that will be taken to implement each BMP, what is anticipated to be achieved by each goal, and the frequency and dates for such actions to be taken. BMPs and measurable goals are the mechanisms that are used to establish a clear and specific baseline against which future progress at reducing pollutants to the MEP can be measured. There are a number of different ways the permittee can establish measurable goals. It is recommended that the below categories are used when developing goals:

- **Tracking implementation over time** – Where a BMP is continually implemented over the permit term, a measurable goal can be developed to track how often, or where, this BMP is implemented.
- **Measuring progress in implementing the BMP** – Some BMPs are developed over time, and a measurable goal can be used to track this progress until the BMP implementation is completed.
- **Tracking total numbers of BMPs implemented** – Measurable goals can be used to track BMP implementation numerically (e.g., the number of wet detention basins in place or the number of people changing their behavior due to the receipt of educational materials).
- **Tracking program/BMP effectiveness** – Measurable goals can be developed to evaluate BMP effectiveness, for example, by evaluating a structural BMP's effectiveness at reducing pollutant loading or evaluating a public education campaign's effectiveness at reaching and informing the target audience to determine whether it reduces pollutants to the MEP. A measurable goal can also be a BMP design objective or performance standard.
- **Tracking environmental improvement** – The ultimate goal of the NPDES stormwater program is environmental improvement, which can be a measurable goal. Achievement of environmental improvement can be assessed and documented by ascertaining whether state water quality standards are being attained, or by tracking trends or improvements in water quality (chemical, physical, and biological) and other indicators, such as the hydraulic or habitat condition of the waterbody or watershed.

Additionally, it is recommended that measurable goals include, where appropriate, the following items:

- The activity, or BMP, to be completed;
- A schedule or date of completion; and
- A quantifiable target to measure progress toward achieving the activity or BMP.

Measurable goals that include these items (not necessarily all three) are easy quantifiable, which leads to being easily tracked, and ultimately leading to a clear demonstration of reducing pollutants to the MEP. In order to help in the selection of measurable goals that will work for the co-permittee, it is recommended that the below criteria be used in selecting measurable goals:

- **Consider the objective for each minimum measure** – BMPs should work toward one or more common objectives related to stormwater quality improvement and reducing pollutants to the MEP. Objectives should be based on what is known about existing pollutant sources and problems in the watershed and what is required by the minimum measure.
- **Review the programs that are already in place for each minimum measure** – Use a self-audit/self-analysis. Coordination with other agencies, non-profit groups, citizen groups, etc. to identify existing initiatives that can be used as part of the stormwater management program.
- **Corresponding BMP** – BMPs that can be utilized for more than one MCM and work toward meeting each minimum measure. These BMPs should address the minimum measures objective identified above and meet the regulatory requirement in the minimum measure. Likewise, when a BMP can be utilized for more than one MCM, the measurable goal can also be used on more than one minimum measure.
- **Milestones for implementation** – Measurable goals should include a timeframe and a quantity to measure, if possible. To assist in this, it is beneficial to consider the following questions:
 - When will BMP be implemented?
 - What and when can institutional, funding, and legal issues, if any, be resolved before implementation can occur?
 - How will progress of implementation be tracked? (Spreadsheets or databases are very useful in tracking progress.)
 - How can the BMP be measured to demonstrate pollutants are being reduced to the MEP? Changes in behavior, number of BMPs implemented, or documented improvements in water quality are results that can demonstrate this.
- **Evaluation and Effectiveness of each BMP** – It is also beneficial to ascertain what effects individual and collective BMPs have on water quality and associated indicators. Instream monitoring, such as physical, chemical, and biological monitoring is ideal because it allows the permittee to determine if the BMP is improving water quality resulting from management efforts. Intermediate goals can provide documentation of progress toward the measurable goal. Ultimately, the evaluation method that is used by the MS4 permit holder for each BMP should lead to a determination of the environmental benefits of each minimum measure and overall effectiveness of the SWMP in reducing pollutants to the MEP.

STORMWATER MANAGEMENT PROGRAM ORDINANCES:

In accordance with 40 CFR 122.26(d)(2)(i), the permittee is required to have legal authority established by statute, ordinance, or series of contracts to control the contribution of pollutants to their MS4 from stormwater discharges associated with industrial activity and the quality of stormwater discharged from industrial sites, prohibit illicit discharges to the MS4, control the discharge of storm sewer spills, dumping or disposal of materials other than stormwater, require compliance with conditions of their ordinances, permits, contracts or orders, and carry out all inspections, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the MS4.

In accordance with 40 CFR 122.26(d)(iv)(D) and 40 CFR 122.26(d)(2)(iv)(A)(2), the permittee must address construction site stormwater runoff control to require erosion and sediment controls at construction sites, as well as sanctions designed to ensure compliance; and address new development and significant redevelopment in their Stormwater Management Program through controls to reduce pollutants in stormwater discharges after construction is completed

ITERATIVE PROCESS:

The iterative process is a documented process consisting of action items and analysis that is to be conducted by the permittee to ensure that BMPs are effective and that the permittee is meeting the MEP standard. The process starts with the evaluation of a BMP with its designated measurable goal, which is the reason quantifiable measurable goals greatly assist in the iterative process. If the BMP is found effective, then the permittee with regards to the BMP continues as normal until the next round of evaluation. If the BMP is found to be ineffective, then the permittee is required to conduct analysis to determine if the ineffective BMP is truly ineffective or if the measurable goal was ill-chosen or unattainable due to no fault of the BMP.

If the measurable goal was ill-chosen or unattainable, then the permittee would need to conduct analysis to determine a more appropriate measurable goal, preferably quantifiable. If the measurable goal wasn't ill-chosen or unattainable, then the permittee is to conduct analysis, research, or review to determine a replacement BMP that is to be effective at reaching the existing measurable goal. However, if the replacement BMP requires a new measurable goal, preferably quantifiable, then it is advantageous for the permittee to develop an appropriate measurable goal for the BMP. The replacement of the ineffective BMP with an effective BMP provides the permittee with reasonable further progress. This process should occur as an annual evaluation; however, it would be naïve to believe that all BMPs can be evaluated annually. Therefore, the operating permit requires that BMPs be evaluated every 5 years (i.e., the life of the permit).

PART V. ADMINISTRATIVE REQUIREMENTS**COST ANALYSIS FOR COMPLIANCE:**

The operating permit for the permittee establishes the minimum requirements to ensure compliance with applicable federal and state rules and regulations for their regulated Phase I MS4. The operating permit requires the permittee to successfully implement their Stormwater Management Program based on minimum control measures to ensure for MEP. The permit requires the permittee to submit their BMPs, measurable goals, and iterative process for implementation of the minimum control measures, which will be deemed affordable by the Department unless the permittee indicates that the terms and conditions of the operating permit are not affordable. Upon notification of that the terms and conditions of the operating permit are not affordable, the Department will conduct an official Cost Analysis.

If the Department requires changes to the Stormwater Management Program for any situation, the Department will conduct a Cost Analysis unless waived by the permittee.

PUBLIC NOTICE:

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

The public notice of this operating permit was held July 21, 2023 through August 21, 2023. No comments were received.

DATE OF FACT SHEET: JULY 2, 2023

COMPLETED BY:

SARAH WRIGHT, STORMWATER COORDINATOR
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION – STORMWATER AND CERTIFICATION UNIT
(573) 526-1139

Sarah.wright@dnr.mo.gov, MS4@dnr.mo.gov

Municipal Separate Storm Sewer System Stormwater Management Plan

City of Independence, Missouri

Prepared for
City of Independence, Missouri

December 2019

Revised Draft 2023



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List of Attachments

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Attachment B	Stormwater Management Plan Contacts and Responsibilities

Abbreviations and Acronyms

BMP	best management practice
City	City of Independence
EPA	U.S. Environmental Protection Agency
MARC	Mid-America Regional Council
MCM	minimum control measure
MDNR	Missouri Department of Natural Resources
MEP	Maximum Extent Practicable
MS4 Permit	Missouri State Operating Permit (MO-0130401)
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
PHFs	pesticides, herbicides, fertilizers
SWMP	Stormwater Management Plan
SWOC	Storm Water Oversight Committee
USGS	U.S. Geological Survey
WPC	Water Pollution Control
WQEC	Water Quality Public Education Committee
SWPPP	Stormwater Pollution Prevention Plan
SOP	standard operating procedure

1.0 Introduction

1.1 Location

The City of Independence (City), which covers approximately 78.3 square miles, is located in Jackson County in western Missouri. As of the 2020 census, the City had a population of 123,011. The City is the fifth largest in Missouri and has a population density of 1,566 per square mile. The population continues to grow at an estimated rate of 0.1-0.4% per year.

The City is a Municipal Separate Storm Sewer System (MS4) community with a Phase I Medium MS4 National Pollutant Discharge Elimination System (NPDES) Missouri State Operating Permit (MO-0130401; MS4 Permit) issued by the Missouri Department of Natural Resources (MDNR). The City developed its previous Stormwater Management Plan (SWMP) in 1993 under the oversight of the Stormwater Task Force as a measure to implement this program and comply with their permit. In 2002, the City developed a stormwater communications plan designed to engage stakeholders to ensure public awareness and participation with respect to the SWMP. Revisions made to the SWMP since 1993 reflect changes to programs and permit requirements and incorporate feedback from the stormwater communications plan. The stormwater communication plan is no longer in effect; however, communication with the public has been incorporated into the SWMP. The SWMP describes the City's approach to implementing best management practices (BMPs) for each of the nine minimum control measures (MCMs), as outlined in the City's MS4 Permit, and described in Section 1.2. The SWMP has been restructured and updated to meet newly add MCM requirements listed in the permit issued on September 1, 2018. The SWMP was revised in 2023 as part of the MS4 permit renewal.

As of 2019, the City has an estimated 230 miles of storm sewers, over 13,800 stormwater structures (street curb inlets, concrete swales, crossroad pipes, and storm sewer inlets and outlets), 19 regional detention basins, and 23 local watersheds. Approximately 250 storm outlets are outfalls that discharge to waters of the state. The MS4 collects and routes stormwater from industrial, commercial, and residential areas located within the municipal boundary and discharges the stormwater to waters of the state. The City operates its own water treatment plant, wastewater treatment plant, and maintains both water distribution and wastewater collection lines.

Table 1-1 includes representative major stormwater outfalls that discharge to waters of the state. Several of the outfall streams, such as Little Blue River and East Fork Little Blue River, have designated uses in accordance with 10 CSR 20-7.031(1)(P) and the National Hydrography Dataset supported through the Missouri Resource Assessment Partnership. Both the Little Blue River and East Fork Little Blue River have been designated for protection of aquatic life, irrigation use, livestock and wildlife watering, secondary contact, whole body contact, and human health protection. It should also be noted that the Little Blue River, a Tributary to the Little Blue River, Spring Branch, the East Fork of Little Blue River, Mill Creek, Crackerneck Creek, and Rock Creek, are currently on the 2022 proposed Section 303(d) list for impaired waters due to e. coli. Mill Creek and East Fork of Little Blue River are impaired for Dissolved Oxygen.

Table 1-1 Stormwater Outfall Locations and Receiving Waters

Outfall	UTM (Zone 15)	Receiving Water
001	X= 388985.91, Y= 4324046.52	Tributary to Burr Oak Creek
002	X= 376246.48, Y= 4324104.95	Tributary to Rock Creek
003	X= 382672.15, Y= 4325138.71	Tributary to Little Blue River
004	X= 381437.00, Y= 4327871.30	Spring Branch
005	X= 384183.45, Y= 4321201.62	East Fork Little Blue River
006	X= 389162.65, Y= 4329168.22	West Fire Prairie Creek
007	X= 383851.08, Y= 4331518.71	Tributary to Little Blue River
008	X= 379243.77, Y= 4321934.46	Tributary to Camp Creek
009	X= 382348.934, Y= 4320841.907	Little Blue River
010	X= 377136.589, Y= 4328664.202	Tributary to Mill Creek
011	X= 374803.93, Y= 4328357.18	Sugar Creek

1.2 Regulatory Background

As a city with a population of 123,011, the City is categorized as a Phase I Medium MS4 owner/operator by the U.S. Environmental Protection Agency (EPA). The MS4 Permit (Attachment A) authorizes the City to discharge stormwater. Sections A.2 and D of the MS4 Permit require the City to develop a written SWMP that includes nine MCMs established by the EPA, processes for BMP evaluation and reporting, and recordkeeping. The nine MCMs in the MS4 permit are:

1. Public Education and Outreach on Stormwater Impacts (Section E.1 of the MS4 Permit);
2. Public Involvement and Participation (Section E.2 of the MS4 Permit);
3. Illicit Discharge Detection and Elimination (Section E.3 of the MS4 Permit);
4. Construction Site Stormwater Runoff Control (Section E.4 of the MS4 Permit);
5. Post-Construction Stormwater Management in New Development and Redevelopment (Section E.5 of the MS4 Permit);
6. Pollution Prevention/Good Housekeeping for Municipal Operations (Section E.6 of the MS4 Permit);
7. Industrial and High Risk Runoff (Section E.7 of the MS4 Permit);
8. Flood Control Projects (Section E.8 of the MS4 Permit) and;
9. Monitoring (Section E.9 of the MS4 of the MS4 Permit).

1.3 Plan Objectives

The objective of this SWMP is to:

- provide BMPs to achieve pollutant reduction to the Maximum Extent Practicable (MEP) for each of the nine MCMs in stormwater discharge;
- provide measurable goals to evaluate BMPs;
- use an iterative process to evaluate BMPs and modify them as necessary;
- ensure the City is in compliance with the proper monitoring, recordkeeping, and reporting requirements, set forth by the MS4 permit; and
- list the responsible person(s) for each MCM. Attachment B includes a list of SWMP contacts and responsibilities.

2.0 MCM1: Public Education and Outreach

2.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.1. The purpose of MCM1 is to establish a public education program to distribute educational material to the community or conduct equivalent outreach activities to:

- educate the public on the impact of stormwater on waterbodies; and
- provide steps the public can take to reduce pollutants in stormwater runoff.

Current lists of target pollutants, audiences, and mechanisms for outreach are listed in Section 2.2.

The City's Municipal Services Department and Parks and Recreation Department conduct public education and outreach. The City's Municipal Services Environmental Compliance Manager will serve as the responsible person for MCM1 and will report education and outreach activities.

2.2 Target Pollutants and Audiences

Table 2-1 provides a list of target pollutants and their associated target audiences for MCM1. Table 2-2 provides the target mechanisms for each audience.

Table 2-1 MCM1 Target Pollutants and Audiences

Target Pollutant	Potential Sources/ Target Audience(s)
Pet waste	<ul style="list-style-type: none">• Residents• K-12 students
Litter and yard waste	<ul style="list-style-type: none">• Residents• Commercial businesses• Industrial facilities• City employees
Pesticides, herbicides, fertilizers (PHFs)	<ul style="list-style-type: none">• Residents• Commercial businesses• Industrial facilities• City employees
Petroleum products	<ul style="list-style-type: none">• Residents• Commercial businesses• Industrial facilities• City employees
Other toxic materials, including hazardous waste	<ul style="list-style-type: none">• Residents• Commercial businesses• Industrial facilities• City employees
Sediment	<ul style="list-style-type: none">• Developers• Industrial facilities• City employees

Table 2-2 MCM1 Target Audiences and Outreach Mechanisms

Target Audience	Target Outreach Mechanism
Students; K-12	<ul style="list-style-type: none"> • Tabling events • Tours • Presentations • Handouts
Residents	<ul style="list-style-type: none"> • Tabling events • Tours • Presentations • Handouts • Mailers • Social media • Regional household hazardous waste collection program
Commercial businesses	<ul style="list-style-type: none"> • Inspections • Social media • Mailers
Industrial facilities	<ul style="list-style-type: none"> • Inspections • Social media • Mailers
City employees	Training

2.3 Best Management Practices

The MS4 Permit requires the City to develop or design BMPs to address each MCM and describe the BMPs in the SWMP (Section D.1.a. of the MS4 Permit). The purpose of the following BMPs is to educate and inform all target audiences of potential stormwater pollutants that each audience manages or may encounter. The City has many ongoing public education BMPs to address MCM1, including:

- Online and hard copy public education materials - Education materials, such as the City's website, pamphlets, brochures, mailers, coloring books, and videos, address stormwater discharge and pollutants. At a minimum, stormwater pollutant topics covered by the education materials should include pollution prevention, stormwater management, composting, oil and grease, and car washing.
- CityScene, the City's quarterly newsletter – Newsletter topics change based on seasonal issues and frequently include water quality topics such as household hazardous waste disposal, yard waste disposal, PHFs, and illicit discharges.
- Giveaway items (incentives) – The intent of giveaway items is to incentivize behavioral changes; these items include pet waste bag dispensers, grease scrapers, grease can lids, and vehicle waste disposal bags.
- Social media – Social media activity promotes stormwater quality and outreach activities.
- Outreach events – Outreach events include but are not limited to, tabling events, wastewater treatment plant tours, educational presentations, and Missouri Stream Team activities.
- Signage – Signage may include, but is not limited to, promotional signage and drain and inlet stenciling.

- Illicit discharge outreach, including the reporting program – The City offers public participation activities to discourage illicit dumping, including the regional Household Hazardous Waste Program and City Drop-off Depot, which accepts trash and brush. The City also has a reporting program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with the discharge from the MS4. This program includes the ability to report illicit discharges, storm sewer, sanitary sewer, and other environmental concerns through the City's Action Center located on the City's phone app and web page. Concerns and issues may also be reported through social media or directly to City departments by telephone.
- Membership and participation in the Mid-America Regional Council (MARC)– The Mid-America Regional Council (MARC) is an association of city and county governments and the metropolitan planning organization for the bi-state Kansas City region. MARC's water quality program provides educational resources, grants, research, and public outreach for local governments as well as the general public. MARC has convened a committee of representatives from local governments and environmental organizations to develop a cooperative approach to water quality public education. MARC also sponsors water quality training for both professionals (e.g., KC Urban Stormwater Conference) and the public (e.g., rain garden workshops). The City participates in the following opportunities coordinated by MARC:
 - The Regional Household Waste Collection Program -Municipal Services houses a mobile hazardous waste drop-off event annually as part of the program.
 - The Regional Water Quality Public Education Committee (WQEC) - the purpose of the WQEC is to develop public education materials that coordinate messaging across greater Kansas City; this coordinated effort strengthens messaging and effectiveness for the City's residents.
 - Citizen surveys - biennial public attitude surveys are conducted through the WQEC to assess the public's knowledge of and attitudes about water quality in greater Kansas City. The survey provides a benchmark for evaluation of water quality public education initiatives over time and provides guidance for future efforts.

2.4 Measurable Goals

The City has established measurable goals for each BMP, as required by Section D.1.b. of the MS4 Permit. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs. Table 2-3 provides City's measurable goals for the BMPs designated for MCM1.

Table 2-3 MCM1 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Public education materials, including giveaway items	<ul style="list-style-type: none"> Document the type and number items/materials distributed, distribution locations, and receiving audiences Review website annually 	Ongoing	Ongoing	Annually
Social Media	<ul style="list-style-type: none"> Evaluate social media plan annually Report number of social media posts made 	Ongoing	Ongoing	Annually
Outreach events	Document events, including event type and location, participation numbers, and topics covered.	Ongoing	Ongoing	Annually
Signage	<ul style="list-style-type: none"> Document location of stenciled storm drains Document new and/or replacement signage 	Ongoing	Ongoing	Annually
Illicit Discharge Reporting	Document number of service requests	Ongoing	Ongoing	Annually
Regional efforts and other information sources	<ul style="list-style-type: none"> Document City participation in regional events, including the event type, location, date, and other attendees that participate in the event Evaluate biennial public attitude surveys 	Ongoing	Ongoing	Annually

3.0 MCM2: Public Involvement and Participation

3.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.2. The purpose of MCM2 is to establish a public involvement/participation program to describe:

- how the public is involved; and
- opportunities provided to be involved with the permittee's MS4 program.

The City's public involvement/participation program currently includes, but are not limited to, the following opportunities to be involved in the MS4 program:

- a public notice period of at least 30 days to allow the public to review and comment on the draft MS4 permit and Stormwater Management Plan.
- the Storm Water Oversight Committee (SWOC)
- City Planning Commission meetings, broadcasted online and on City 7, the government access cable television station
- City Council meetings, broadcast online and on City 7
- neighborhood public meetings regarding storm water concerns
- the Sustainability Commission meetings and events
- flood control project questionnaire

The City's Municipal Services Director and Municipal Services Environmental Compliance Manager will serve as the responsible persons for MCM2. The Municipal Services Director will oversee the City Council and SWOC agendas. The Environmental Compliance Manager will oversee public participation programs and Sustainability Commission meetings and events.

3.2 Best Management Practices

The purpose of the BMPs listed in this section is to support the public involvement/participation program in accordance with MCM2. BMPs to address MCM2 include the following:

- Stakeholder involvement opportunities - Stakeholder involvement opportunities include, but are not limited to:
 - City board positions and committees, such as the SWOC and Sustainability Commission; and
 - comment periods on the City's SWMP, MS4 permit, and City ordinances.

- Neighborhood meetings – Neighborhood meetings often include presentations from City staff members.
- Live City meeting broadcasts – Broadcasts include City Council meetings and City Planning Commission meetings on City 7. City Council and Commission meetings are open to the public.
- Citizen survey – The City participates in the WQEC biannual survey to gauge change in attitude/behavior and exposure to stormwater education (refer to MCM1).
- Flood Control Project Questionnaire – The City distributes a questionnaire to collect input from residents and businesses located in the drainage area of a flood control project. The results of the questionnaire are used in the cost/benefit analysis for project planning and prioritization.
- Additional participation opportunities – Additional participation opportunities will be developed, as needed.

3.3 Measurable Goals

Table 3-1 provides City's measurable goals for the BMPs designated for MCM2. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 3-1 MCM2 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Stakeholder involvement opportunities	<ul style="list-style-type: none"> • Track participation in City boards and committees • Document number of reviews/ comments per opportunity 	Ongoing	Ongoing	Annually
City Public Committees	<ul style="list-style-type: none"> • Document number of meetings • Document meeting agendas and minutes 	Ongoing	Ongoing	Annually
City Council and neighborhood meetings	Document meeting agendas	Ongoing	Ongoing	Annually

4.0 MCM3: Illicit Discharge Detection and Elimination

4.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.3. The purpose of MCM3 is to establish procedures to prevent illicit discharges from City outfalls to receiving waterbodies and provide follow-up and enforcement in the event of an illicit discharge.

The City's program for illicit discharge detection and elimination currently includes:

- MS4 mapping
- annual dry weather field screening
- illicit discharge source investigations and elimination, including emergency spill response
- public reporting of non-stormwater discharges and spills
- illicit discharge education and training

The City's Municipal Services Environmental Compliance Manager will serve as the responsible persons for MCM3. The Municipal Services Sewer Maintenance Division Superintendents are responsible for O&M of the sanitary and stormwater collection systems. The Fire Department serves as the lead team for emergency spill response and containment procedures.

4.2 Target Pollutants and Audiences

Table 4-1 provides a list of target pollutants and their associated target audiences for MCM4.

Table 4-1 MCM3 Target Pollutants and Audiences

Target Pollutant	Potential Sources / Target Audience(s)
Petroleum products	<ul style="list-style-type: none"> • Commercial (vehicle service stations) • Industrial facilities
Litter and yard waste	<ul style="list-style-type: none"> • Residents • Commercial businesses • Industrial facilities • City employees
Pesticides, herbicides, fertilizers (PHFs)	<ul style="list-style-type: none"> • Residents • Commercial businesses • Industrial facilities • City employees
Other hazardous materials	<ul style="list-style-type: none"> • Residents • Commercial businesses • Industrial facilities • City employees
Bacteria (E.coli)	<ul style="list-style-type: none"> • Wildlife • Residents • Commercial businesses • Industrial facilities • Sanitary sewer

4.3 Best Management Practices

The purpose of the BMPs listed in this section is to educate and inform all target audiences of potential stormwater pollutants that each audience manages or may encounter. The City has many ongoing BMPs to address MCM3, including the following:

- MS4 map – The City maintains an up-to-date, publicly accessible map of the City’s storm sewer system (reference (1)).
- City ordinances – City Code, Chapter 7, Article 8, addresses the illicit discharge of pollutants into the MS4 and waters of the state (reference (2)).
- Public reporting mechanisms – Mechanisms for public reporting of non-stormwater discharges and spills include a City hotline number, mobile app and service requests.
- Illicit discharge investigations and follow-up inspections – City staff respond to service requests within 72 hours. Staff conduct follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party to achieve and maintain compliance. Municipal Services maintains a “Field Investigation Procedures for Illicit Discharges”. A copy of this manual is available at the Rock Creek Water Reclamation Plant.

- City employee training – Illicit discharge training for City employees include the following:
 - illicit discharge recognition and reporting
 - task training for field staff who may encounter illicit connections or discharges on a routine basis
- Dry weather field screening – Dry weather field screening procedures of the City's 24 sub-watersheds include procedures for waterway observations, outfall inspections, and sample collection. Sample parameters may include but may not be limited to, e. coli, pH, conductivity, temperature, dissolved oxygen, surfactants, metals, ammonia, oil and grease, and chlorine.
- Emergency response procedures – The City's Incident Command System serves as the emergency response procedures for illicit discharges.
- Illicit discharge prevention outreach – The City offers public participation activities to discourage illicit dumping, including the regional Household Hazardous Waste Program (refer to Section 2.0) and Drop-off Depot, which accepts trash and brush.
- Facility inspections – The City inspects commercial and industrial facilities prior to the issuance of a City business license. During this inspection businesses are educated on stormwater requirements and proper handling of materials exposed to stormwater.
- Operation and maintenance (O&M) practices – The City employs O&M practices to limit infiltration to the MS4 or seepage from the municipal sanitary sewer. Municipal Services inspects the sanitary sewer system using closed-circuit televised technology. Sewer system segments with high infiltration or exfiltration are placed on a list to be repaired, replaced, or lined using trenchless techniques.

4.4 Measurable Goals

Table 4-2 provides City's measurable goals for the BMPs designated for MCM3. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 4-2 MCM3 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Overall illicit discharge detection and elimination program	<ul style="list-style-type: none"> • Evaluate once per permit cycle • Develop plan for updates, as necessary 	N/A	Permit year five	Once per permit cycle

Map of MS4	Update map as needed	Initial map completed in 2010, Start updates to map to include open conveyance outfalls, year 1	Year 5	Annually
Ordinances	City Code is updated as needed	Established in 1999	Ongoing	Annually
Public reporting mechanisms	<ul style="list-style-type: none"> • Document hotline and service requests, including the date and type of request • Document follow-up actions to requests, including the date(s) of inspection, follow-up action, and correction (if needed) 	N/A	Ongoing	Annually
Inspection and investigation actions and procedures	<ul style="list-style-type: none"> • Document inspection and investigation actions, including the date(s) of inspection, follow-up action, and correction (if needed) • Review procedures on an annual basis for applicability 	Ongoing (Procedures established in 2009)	Ongoing	Annually
Emergency response procedures	Update as needed, (maintained by Fire Department)	Ongoing	Ongoing	Annually
Field screening	Screen sub-watersheds annually with the goal to screen all 24 sub-watersheds during a permit cycle	Ongoing	Ongoing	Annually
O&M practices	Document feet of sewer main inspected and feet of sewer main repaired	Ongoing	Ongoing	Annually

5.0 MCM4: Construction Stormwater Runoff Control

5.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.4. The purpose of MCM4 is to develop, implement, and enforce a stormwater runoff program for construction activities that result in land disturbance greater than or equal to one acre in size or part of a common plan of development or sale that would disturb land greater than or equal to one acre.

The City has currently enacted the following policies and procedures regarding construction stormwater runoff control:

- implementation and enforcement of sediment and erosion control at land disturbance sites
- Public Works guidance manuals that address ordinances and BMPs to control sediment and erosion
- procedures to inspect and enforce construction site control measures
- educational and training measures for construction site operators

Current lists of target pollutants, potential sources, target audiences, and mechanisms for outreach are listed in Section 5.2.

The Municipal Services, City Engineer and Community Development, Assistant Director will serve as the responsible person for MCM4. Municipal Services oversees grading and land disturbance of sites not associated with an active building permit. Community Development oversees land disturbance and erosion control of sites with building permits.

5.2 Target Pollutants and Audiences

Table 5-1 provides a list of target pollutants and their associated target audiences for MCM4. Table 5-2 provides the target mechanisms for each audience.

Table 5-1 MCM4 Target Pollutants and Audiences

Target Pollutant	Potential Sources	Target Audience(s)
Sediment	Land disturbance from clearing and grubbing activities	<ul style="list-style-type: none">• Development contractors• Businesses• Homeowners
Construction site waste (e.g., discarded building material, concrete truck washout, chemicals, litter and sanitary waste)	Construction activities	Construction site operators (development contractors, owners, and third parties)

Table 5-2 MCM4 Target Audiences and Outreach Mechanisms

Target Audience	Target Outreach Mechanism
Contractors	<ul style="list-style-type: none"> • Permitting • Public Works Sediment and Erosion Control Manual • Site Inspections • Public Works Department Stormwater Quality Manual • Erosion control handouts
Businesses	<ul style="list-style-type: none"> • Permitting • Public Works Sediment and Erosion Control Manual • Site inspections • Public Works Department Stormwater Quality Manual • Erosion control handouts
Homeowners	<ul style="list-style-type: none"> • Permitting • Public Works Sediment and Erosion Control Manual • Site inspections • Public Works Stormwater Quality Manual • Erosion control handouts

5.3 Best Management Practices

The purpose of the BMPs listed in this section is to educate and inform all target audiences of potential stormwater pollutants that each audience manages or may encounter. The City has many ongoing BMPs to address MCM4, including the following:

- City ordinances – City Code, Ch. 20, Article 16 establishes requirements for erosion and sediment control BMPs at construction sites and includes sanctions designed to ensure compliance (reference (2)).
- Construction waste BMPs – The Public Works Department’s Sediment and Erosion Control Manual and Stormwater Quality Manual establishes City requirements for construction projects, including construction waste BMPs.
- Permit tracking – The City uses Cityworks software to track construction sites by erosion control permits, permit dates, and basic site information.
- Inspection procedures – The City has procedures to inspect and enforce construction site control measures by inspecting erosion control permit locations.
- Operator training – The City provides resources for construction site operators for construction site education and training.

- Construction site discharge response procedures – The City (Municipal Services or Community Development Departments) investigates public reports of discharges of pollutants from construction sites. Any violations identified are addressed by the respected department.
- Stormwater Pollution Prevention Plan (SWPPP) reviews – The City reviews construction site and grading plans for appropriate erosion control measures before permits are issued.

5.4 Measurable Goals

Table 5-3 provides City's measurable goals for the BMPs designated for MCM4. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 5-3 MCM4 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Ordinances	<ul style="list-style-type: none"> • Track ordinance changes • Track ordinance and regulatory mechanism reviews • Document stop work orders issued as well as additional enforcement actions and outcomes 	N/A	N/A	Annually
Construction waste BMPs	Land disturbance inspections	Ongoing	Ongoing	Annually
Permit tracking	Track the number of issued permits and associated compliance activities, as needed	N/A	N/A	As needed
Inspection procedures	<ul style="list-style-type: none"> • For each inspector training, document training records, including the staff trained, date of training, instructor(s), and topics included • Maintain inspection procedures 	Ongoing	Ongoing	Annually
Operator trainings	Maintain a list of operator training material	Ongoing	Ongoing	Annually
Construction site discharge response procedures	Track the number of reports and follow-up actions	Ongoing	Ongoing	Annually

6.0 MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

6.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.5. The purpose of MCM5 is to develop, implement, and enforce a post-construction stormwater program for construction activities that result in land disturbance greater than or equal to one acre in size or part of a common plan of development or sale that would disturb land greater than or equal to one acre.

The City has currently enacted the following components of a post-construction stormwater management program:

- ordinances and other regulatory mechanisms to address post-construction runoff
- site plan reviews for new development or redevelopment projects
- stormwater design criteria including assessment of site characteristics, buffer criteria for streams, preservation of undisturbed natural areas
- long-term O&M of municipally owned, post-construction stormwater control measures
- inspections and enforcement to ensure long-term O&M of private post-construction stormwater controls (further development in progress)

The following persons and City departments are responsible for MCM5:

- The City's Municipal Services Environmental Compliance Manager is responsible for oversight of the stream buffer setback regulations and on-site stormwater maintenance.
- The Municipal Services City Engineer is responsible for oversight regarding flood plan management, on-site stormwater management, and land disturbance.
- The Community Development Assistant Director is responsible for oversight of on-site stormwater management and tree preservation plans.

6.2 Best Management Practices

The purpose of the BMPs listed in this section is to support the post-construction stormwater management program in accordance with MCM5. BMPs to address MCM5 include the following:

- City ordinances – City ordinances (reference (2)) pertaining to MCM5 address the following:
 - stream buffer and setback regulations, including stream buffer plan requirements (City Code, Ch. 7)

- development requirements and minimization of water quality impacts, including the preservation of undisturbed natural areas, trees, and steep slopes (City Code Ch. 14)
- requirements for property owners to maintain detention facilities (City Code Ch. 17)
- design criteria for public systems (City Code Ch. 20)
- enforcement is conducted in accordance with City Code
- Inspections (public BMPs) – The City conducts inspections of municipal detention facilities to ensure O&M on an annual or as-needed basis.
- Development reviews – The City conducts plan reviews for new development and redevelopment to ensure adequate planning for stormwater program compliance.
- Post-construction stormwater design criteria – The City requires developers to adhere to the Public Works Stormwater Quality Management Guide for the design of permanent stormwater BMPs.
- Preservation of undisturbed natural areas, trees, and steep slopes – The City encourages the preservation of undisturbed natural areas, trees, and steep slopes to reduce post-construction stormwater runoff. Tree preservation plans are required for new construction projects or construction of an existing structure that requires site clearing and grubbing.
- Floodplain management controls – The City considers water quality impacts in the evaluation and development of floodplain management controls. Floodplain management controls are further discussed in the BMPs listed for MCM8: Flood Control Projects (refer to Section 9.0).

The following BMPs will be designed, developed, or further developed during year four of the permit regarding MCM5:

- A formal BMP O&M agreement plan – The City is in the process of updating City Codes to require formal plans agreements between parties to ensure ongoing BMP O&M following construction.
- Private permanent stormwater BMP inventory – The City will continue to develop an inventory of privately-owned permanent stormwater BMPs.
- Inspections (private BMPs) – The City will begin to inspect privately-owned permanent stormwater BMPs or verify independent inspections are conducted by owners or operators.

6.3 Measurable Goals

Table 6-1 provides City's measurable goals for the BMPs designated for MCM5. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 6-1 MCM5 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Ordinances	<ul style="list-style-type: none"> • Review as needed • Document enforcement actions and outcomes • Document specific maintenance issues or violations found that need to be corrected by the property-owner or operator along with deadlines and follow-up inspection dates 	Ongoing	Ongoing	Annually
Inspections	Document inspection and maintenance activities, including requests	Ongoing	Ongoing	Annually
Development reviews	Document site plan reviews, including project, date reviewed, deficiencies, and follow-up actions, as necessary	Ongoing	Ongoing	Annually
Stormwater design criteria	<ul style="list-style-type: none"> • Document revisions to the stormwater design criteria manual • Update as needed 	Ongoing	Ongoing	Annually
Preservation of undisturbed natural areas, trees, and steep slopes	<ul style="list-style-type: none"> • Document stream buffer setback plans • Document flood plan management plans • Document tree and natural area preservation plans 	Ongoing	Ongoing	Annually

7.0 MCM6: Pollution Prevention/Good Housekeeping

7.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.6. The purpose of MCM6 is to develop and implement an O&M program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The program includes the following requirements of the MS4 Permit for this SWMP:

- an O&M program for municipal operations owned and operated by the City
- an employee training program to prevent and/or reduce stormwater pollution from municipal operations
- a list of all municipal operations impacted by this program
- maintenance of BMPs, including maintenance schedules and inspections for structural controls
- controls to reduce and/or eliminate pollutant discharge from streets, roads, and highways, which include, at a minimum:
 - stored and covered deicing chemicals, as well as deicing practices
 - street sweepings and proper disposal on curb and gutter streets
 - street design, construction, and maintenance practices that reduce the discharge of pollutants to the MS4
 - periodic grated inlets, roadway stormwater inlets, and catch basin cleaning
- prevention of paints, solvents, and petroleum products from exposure to stormwater
- a plan to reduce pollutant discharge from PHFs

The City's Municipal Services Environmental Compliance Manager will serve as the responsible person for MCM6.

Table 7-1 provides a list of municipal operations and their locations that are impacted by the City's operations and maintenance program. Table 7-2 provides the target pollutants and BMPs for each pollutant.

Table 7-1 MCM6 Municipal Operations and Locations

Municipal Operation	City Department	Location	Onsite Activities
Central Garage	Municipal Services	1030 S Crysler	Fleet Maintenance/Fuel
Massman Farm Street Maintenance Operations	Municipal Services	865 Vista Ave	Outdoor Operations ⁽¹⁾ /Drop-off Depot/Salt Storage
Park Maintenance Facility	Parks/Rec/Tourism	320 E. Lexington	Garage/Outdoor Operations ⁽¹⁾ /Fuel
Water Construction Maintenance Building	Water Department	420 N Forest Ave.	Garage/Outdoor Operations ⁽¹⁾ /Fuel
Municipal Services Sewer Maintenance Building	Municipal Services	14909 E. Truman Rd	Garage/Outdoor Operations ⁽¹⁾ /Fuel
Municipal Services Sewer Maintenance Storage Yard	Municipal Services	S Powell Rd and M-78 Hwy	Outdoor Operations ⁽¹⁾
Municipal Services Rock Creek Wastewater Treatment Plant	Municipal Services	9600 Norledge	Outdoor Operations ⁽¹⁾
Courtney Bend Water Plant (does not discharge to MS4)	Water Department	14700 N. Cement City Rd.	Outdoor Operations ⁽¹⁾
Power & Light Service Center – IPL Garage	Power & Light	21500 E. Truman Rd	Fleet Maintenance/Outdoor Operations ⁽¹⁾ /Fuel
Fire Training Center	Fire Department	S Powell Rd and M-78 Hwy	Fire Fighting Training/Outdoor Operations ⁽¹⁾

- (1) Per Missouri Department of Natural Resources' Guidance for No Exposure Certification for Exclusion from Stormwater Permit Requirements, "outdoor operations" include, but are not limited to, material handling activities, industrial machinery, vehicle maintenance, raw materials, intermediate products, by-products, final products not designed to be outdoors or waste products. Materials stored in drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak are not considered exposed to stormwater. Sealed means banded or otherwise secured and without operational taps or valves.

Table 7-2 MCM6 Target Pollutants and BMPs

Target Pollutant	BMP
Oil and Grease	<ul style="list-style-type: none"> • Proper storage of used oil • Spill kits located near fueling islands • Spill kits located near fleet maintenance operations • Site inspections
Floatables	<ul style="list-style-type: none"> • Good housekeeping • Site inspections • Stormwater inlet protection
Sediment	<ul style="list-style-type: none"> • Stormwater inlet protection • Site inspections

7.2 Best Management Practices

The purpose of the BMPs listed in this section is to support the City's pollution prevention/good housekeeping program in accordance with MCM6. BMPs to address MCM6 include the following:

- Municipal facility inventory – The City maintains an up-to-date list and map of all municipal facilities and stormwater detention basins. The list and map are stored electronically on the City's current software of Cityworks and are available for review by the permitting authority. Facilities will be updated in the annual report.
- Good housekeeping practices – The City follows good housekeeping practices at each facility. Proper storage of deicing chemicals is included in good housekeeping practices. Housekeeping practices and standard operating procedures (SOPs) are the responsibility of each department.
- Routine inspections, operations, and maintenance (O&M)– The City conducts the following inspections and O&M activities:
 - routine inspections and maintenance of structural BMPs, including City-owned detention basins and surface drainage structures (City staff document catch basin cleanings in a log)
 - O&M procedures for dewatering and disposal of waste materials, fueling facilities (includes inspections), and pollutant elimination from municipal roads and service areas
 - routine street sweeping and proper disposal of sweeper waste materials (street sweeper operators are properly trained on pollution prevention and good housekeeping practices)
- Spill prevention and response procedures – The City follows a spill prevention and response procedure to reduce and respond to spills or releases from vehicle maintenance. The Fire Department is the primary responder to significant spills. Spills are handled following individual site plans, such as EPA-required Spill Prevention Control and Countermeasures (SPCC) plans.

- PHF reduction plan – The City follows state and federal requirements for the application of PHFs. This includes the use of certified employees or hiring certified contractors for the application of controlled PHFs. The City typically refrains from conducting broad use of PHFs and most applications are point usages.
- Employee training program – The City will continue an employee training program regarding stormwater pollution from municipal operations.

7.3 Measurable Goals

Table 7-3 provides City's measurable goals for the BMPs designated for MCM6. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 7-3 MCM6 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Municipal facility inventory	Review list on an annual basis	Ongoing	Ongoing	Annually
Good housekeeping practices	Document routine inspections at facilities, including dates, findings, and corrective actions, as necessary.	Ongoing	Ongoing	N/A
Stormwater catch basin inspections and O&M	<ul style="list-style-type: none"> • Annual inspections • Mowing monthly or as needed • Annual mowing of entire basin 	Ongoing	Ongoing	Annually
Stormwater structure inspections	Inspect 40 – 50% of storm structures (inlets and outlets) per year	Ongoing	Ongoing	Annually
Street sweeping	<ul style="list-style-type: none"> • Document number of lane miles • Document amount of sweepings disposed of 	Ongoing	Ongoing	Annually
Spill prevention and response procedures	As needed	Ongoing	Ongoing	N/A
PHF reduction plan	Review state and federal requirements on annual basis	N/A	N/A	Annually
Employee training	<ul style="list-style-type: none"> • For each training, document training records, including the staff trained, date of training, instructor(s), and topics included • Review training procedures for applicability annually 	Ongoing	Ongoing	Annually

8.0 MCM7: Industrial and High-Risk Runoff

8.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.7. The purpose of MCM7 is to prevent and reduce stormwater concerns due to runoff from industrial use and other high-risk facilities.

The City has implemented an inspection and oversight program to monitor and control pollutants in stormwater discharges to the MS4 from industrial and high-risk runoff facilities. The program includes the following requirements of the MS4 Permit for this SWMP:

- an inventory of industrial sites/sources of stormwater discharges to the municipal separate stormwater system;
- inspection of industrial and commercial facilities characterized as high risk for discharging pollutants into the MS4
- enforcement of the Municipal Separate Storm Sewer System Regulations (Chapter 7, Article 8 of the City Code)
- methods to identify priorities and procedures for inspections and establish and enforce control measures for discharges

The City's Municipal Services Environmental Compliance Manager will serve as the responsible person for MCM7.

8.2 Best Management Practices

The purpose of the BMPs listed in this section is to support the industrial and high-risk runoff program in accordance with MCM7. Monitoring, inspection, and enforcement BMPs to address MCM7 include the following:

- High risk and priority facility inventory – The City updates a tracking list of high risk and priority facilities that discharge into the MS4 in annual reports. These facilities include the following:
 - hazardous waste, treatment, storage, and disposal facilities
 - industries subject to reporting requirements pursuant to Title III Section 313 of the Superfund Amendments and Reauthorization Act of 1986
 - businesses that may have industrial activities that contribute a substantial pollutant load to the MS4 (evaluated based on Standard Industrial Classification code, outdoor operations, and MDNR no exposure criteria)
 - municipal landfills (the City does not have an active landfill but monitors the inactive Glendale Garden Sanitary Landfill)

- Permit and no exposure certification tracking – The City provides copies of MDNR permit applications or guidance documents to unpermitted facilities with industrial activities that would require state operating permits or no exposure certification. The City also provides technical assistance to facilities during the application process.
- Inspection program – Facilities that are determined to contribute a substantial loading of pollutants are added to the inspection program. The inspection program for stormwater discharges associated with high-risk and industrial facilities includes an inspection standard operating procedure (SOP), which includes an inspection checklist. If violations are identified, Municipal Services conducts follow-up inspections. Enforcement actions include, but are not limited to, a Notice of Violations, municipal court summons, and administrative fines. Priority facilities are inspected annually. Nonpriority facilities are addressed based on their last inspection date and potential for stormwater pollution.
- Monitoring program – The monitoring program includes high-risk and priority facilities that discharge into the MS4. The City monitors stormwater discharges as needed in response to spills, dumping, and disposal of materials other than stormwater, based on noncompliance or in response to investigations. The City defers to state requirements in the case that an industrial facility is required to have a NPDES state operating permit. If a stormwater sample exceeds a pollutant benchmark, the facility must comply with requirements in their state operating permit, which includes, at a minimum, a review of their SWPPP and BMPs to determine what improvements or additional controls are needed to reduce the pollutant in the stormwater discharge(s).
- Staff training – The City trains stormwater inspectors to ensure they are knowledgeable and proficient in the most effective approaches to minimizing stormwater pollution from industrial/commercial facilities.
- Enforcement – The City will continue to follow enforcement procedures regarding discharges from industrial and high-risk facilities.

8.3 Measurable Goals

Table 8-1 provides City's measurable goals for the BMPs designated for MCM7. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 8-1 MCM7 Measurable Goals

BMP	Measurable Goal Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Facility inventory	<ul style="list-style-type: none"> • Document inventory updates • Evaluate criteria used to identify listed facilities; document updates to criteria 	Ongoing	Ongoing	As needed

Permit and no exposure certification tracking	<ul style="list-style-type: none"> • Document permitted and unpermitted facilities • Document communication with unpermitted facilities • Track progress of unpermitted facilities toward permit coverage or certification 	Ongoing	Ongoing	As needed
Inspection program	<ul style="list-style-type: none"> • Document facility inspections • Evaluate overall program progress annually • Inspection of all priority facilities annually 	Ongoing	Ongoing	Annually
Monitoring program	<ul style="list-style-type: none"> • Document monitoring efforts • Track recommended corrective actions and progress 	Ongoing	Ongoing	As needed
Staff Training	Document training records, including the staff trained, date of training, instructor(s), and topics included	Ongoing	Ongoing	Annually

9.0 MCM8: Flood Control Projects

9.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.8. The purpose of MCM8 is to consider the impacts of water quality in the design of all flood control projects that are associated with the MS4. Special consideration should be taken when involving any flood control project that receives stormwater from the MS4 prior to discharging to waters of the state.

The City has currently enacted the following policies and procedures regarding flood control projects:

- an evaluation of existing flood control devices
- procedures to consider impacts on water quality
- controls to minimize impacts of water quality on waterbodies receiving stormwater discharges

The City's Municipal Services Stormwater Manager and City Engineer will serve as the responsible person for MCM8.

9.2 Best Management Practices

The purpose of the BMPs listed in this section is to reduce the impacts of flooding and improve the water quality discharged from the City's MS4. The City has many ongoing BMPs to address MCM8, including:

- Flood control project planning and prioritization – The City plans flood control projects using a five-year outlook and uses a cost/benefit analysis to prioritize project implementation.
- Water quality considerations – Evaluations of water quality impacts from flood control projects include the following:
 - The City conducts watershed studies to consider various control measures to minimize impacts of water quality on waterbodies receiving stormwater discharge.
 - The City considers water quality impacts for all new flood control projects in the cost/benefit analysis. Parameters included in this analysis include adverse upstream and downstream effects to waterbodies, the risk of sanitary sewer overflows due to flooding, and other regulatory implications that may result from a project.
 - The City requires applicants to submit water quality considerations, a hydrologic analysis, and any regulatory limitations that would affect the project proposal for projects during the "Request for Proposal" process.
- Retrofit evaluations - The City has evaluated many of the existing flood control devices to determine retrofitting needs. Many of the existing flood control devices have been retrofitted with native plantings and have had concrete channels removed. Native plants reduce maintenance

requirements and allow for improved water quality by reducing sediment and promoting biologic uptake of pollutants such as nutrients, metals, and oil and grease. Removing of concrete channels allow for pollutants to be filtered out and water to infiltrate rather than pass through.

- Flood control project questionnaire – The City distributes a questionnaire to collect input from residents and businesses located in the drainage area of a flood control project. The results of the questionnaire are used in the cost/benefit analysis for project planning and prioritization.
- American Rescue Plan Act 2021 – The City applied for ARPA grant funds for stormwater improvements and was found eligible on four projects. The projects are Raymond to Mills CIP, Rockwood Stormwater Improvements, Pearl to Crane CIP, and Rock Creek CMP Replacement.

9.3 Measurable Goals

Table 9-1 provides City's measurable goals for the BMPs designated for MCM8. The intent of the measurable goals is to provide quantifiable milestones to determine the appropriateness of identified BMPs and document progress toward the MCMs through the BMPs.

Table 9-1 MCM8 Measurable Goals

BMP	Measurable Goal	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Flood control project planning and prioritization	Document receiving stream evaluation on new flood control projects	Ongoing	Ongoing	Ongoing
Water quality considerations	<ul style="list-style-type: none"> • Document water quality findings of watershed studies to evaluate trends • Document water quality considerations in cost/benefit analysis 	Ongoing	Ongoing	Ongoing
Retrofit evaluations	Evaluation of regional detention basins was completed in the 2000's	Ongoing	Ongoing	As needed
Flood control project questionnaire	Document questionnaire findings to evaluate trends	Ongoing	Ongoing	As needed
ARPA Grant Stormwater Improvements	Document and report milestones	As needed	Year five	Annually

10.0 MCM9: Monitoring

10.1 Purpose and Scope

This section of the SWMP was developed in accordance with MS4 Permit Section E.9. The purpose of MCM9 is to conduct monitoring at representative outfalls or field screening points to characterize the quality of stormwater discharging from the MS4.

The City has maintained an urban stream monitoring program with USGS since 2007. The current USGS cooperative agreement expires in 2024. The agreement with amendments was represented in the 2017 Stormwater Monitoring Plan. The new 20250-2029 USGS cooperative agreement will be submitted to MDNR once drafted and will include the following MCM9 requirements:

- Representative monitoring - Representative monitoring on select field screening points for the following parameters, at a minimum:
 - total suspended solids
 - specific conductivity
 - chemical oxygen demand
 - e. coli
 - pH
 - total Kjeldahl nitrogen
 - nitrate + nitrite
 - dissolved phosphorus
 - total phosphorus
 - additional parameters as recommended by MDNR
- Storm event sampling – Storm event sampling will include the following:
 - stormwater samples collected from stormwater discharges from three storm events annually occurring at least one month apart
 - representative storm event sampling at a minimum of six locations
- Data record maintenance - Maintenance of storm event data records will include the following:
 - all analytical results
 - date and duration (in hours) of the storm event(s) samples

- rainfall measurements or estimates (in inches) of the storm event which generated the runoff that was sampled
 - duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1-inch rainfall) storm event
- Biological assessments - Continue approved biological assessment plan for microbial source tracking.
- Analysis and collection of samples conducted with methods specified in 40 CFR 136 - Where an approved 40 CFR 136 method does not exist, any available method may be used unless a particular method or criteria for method sections (such as sensitivity) has been specified in the MS4 Permit.
- Routine monthly sampling - In addition to the storm event sampling based on the agreement between USGS and the City, routine monthly sampling is conducted at predetermined sites irrespective of streamflow conditions.
- Continuous water quality monitoring at four locations - Reference (3) provides the results of water quality monitoring data.

The City's Municipal Services Environmental Compliance Manager will serve as the responsible person for MCM9.

10.2 Best Management Practices

Municipal Services' monitoring program will be conducted in accordance with the requirements of MCM9 and the 2020-2024 USGS cooperative agreement to achieve BMPs. Measurable goals for components of the monitoring program are discussed in the following section. Municipal Services intends to renew the cooperative agreement with USGS in 2024. The agreement will be submitted to MDNR for approval.

10.3 Measurable Goals

Table 10-1 provides the City's measurable goals for Municipal Services' monitoring program. Table 10-2 provides the location of the City's stream monitoring location.

Table 10-1 MCM9 Measurable Goals

Monitoring Requirement	Measurable Goal/Tracking Mechanism	Interim Milestone Date	Completion Milestone Date	Measurement Frequency
Storm event sampling	<ul style="list-style-type: none"> Document 3 storm events at 6 locations Evaluate analytical data for water quality trends 	Ongoing	Ongoing	Annually
Biological Assessment	<ul style="list-style-type: none"> Document the sampling locations and dates Evaluate analytical data for water quality trends 	Ongoing	TBD	As defined in approved sampling plan
Continuous water quality monitoring	<ul style="list-style-type: none"> 4 continuous water quality monitoring stations Data published on USGS website (reference (3)) Evaluate analytical data for water quality trends 	Ongoing	Ongoing	Annually
Routine monthly water quality monitoring	<ul style="list-style-type: none"> 9 monitoring locations Monthly sampling during recreation season Evaluate analytical data for water quality trends 	Ongoing	Ongoing	Annually

Table 10-2 MCM9 Stream Monitoring Locations

Site Number	Site Name	Continuous Water Quality Monitoring	USGS Site Number
1	Rock Creek	Yes	06893620
2	Little Blue River at Lee's Summit Road	Yes	06893820
3	Adair Creek	No	06893830
4	East Fork Little Blue River	No	06893890
5	Crackerneck Creek	No	06893940
6	Spring Branch at Highway 78	Yes	06893970
7	Burr Oak Creek	No	06893990
8	Little Blue River at Highway 78	Yes	06894000
9	Bundschu Creek	No	390617094190201

11.0 Reporting and Recordkeeping

11.1 Reporting

In accordance with the MS4 Permit (Section F.1), the City will submit an annual SWMP report to MDNR by January 28 of each year. The report at minimum will cover the permittee's previous fiscal year (July 1 – June 30). The report will include the following to meet the requirements of the MS4 Permit:

- a list of names and contact information for staff who ensure the successful implementation for each MCM
- a general summary of each MCM that includes the following information:
 - overall compliance with permit conditions and the SWMP
 - a list of BMPs used to implement the MCM
 - a description of the assessment used to determine the appropriateness of the BMPs
 - a description of the iterative process used to replace or modify any BMP or measurable goal, if applicable
 - a list of the measurable goals for each BMP, and, if applicable, the completion date for any measurable goal completed during the reporting period
 - an explanation for any measurable goal scheduled for completion during the reporting period that was not completed and list any modified goals or deadlines
 - a brief summary of stormwater activities planned for the next reporting cycle and implementation schedule, if feasible
 - any planned changes to the SWMP, which may include any changes to the MCMs including changes to BMPs, measurable goals, or the iterative process
 - a summary of monitoring required by this permit by their specific MCM, including a justification for any required monitoring that was not completed, monitoring results in a table format, and a general discussion of the results with respect to the MEP and, if applicable, TMDL parameters
- a summary of the permittee's TMLD ARAP, if applicable

11.2 Recordkeeping

In accordance with the MS4 Permit (Section F.2-4), the City will retain the most recent version of this SWMP to be made available upon request. In addition, the City will maintain the following records for a minimum of three years from the date of application for coverage under the MS4 Permit:

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- activities requiring recordkeeping by this SWMP
 - a copy of the MS4 Permit, ordinances, policies, and formal procedures for all nine MCMs
 - records of the data used to complete the application for the MS4 Permit
 - monitoring information used for the renewal application, implementation of any part of this permit, or implementation of any part of the SWMP, which will include the following monitoring data, when applicable:
 - the date, location, and time of sampling or measurement
 - the individual(s) who performed the sampling or measurement
 - the date(s) analyses were performed
 - the individual(s) who performed the analyses
 - the analytical technique or method used
 - analytical results

12.0 References

1. **Environmental Systems Resources Institute (ESRI)** Independence Sewer Map ArcGIS [Online]
<https://www.arcgis.com/home/webmap/viewer.html?webmap=7a8a97ebc3e7483dab0c48e8bc9e8c2f>
2. **Independence, Missouri.** City Code. *City of Independence, Missouri*. [Online]
https://library.municode.com/mo/independence/codes/code_of_ordinances
3. **U.S. Geological Survey.** USGS Water Resources: Current Conditions of Missouri. *National Water Information System: Web Interface*. [Online]
https://nwis.waterdata.usgs.gov/mo/nwis/current/?type=intro&group_key=NONE

Attachments

Attachment A

State of Missouri, Department of Natural Resources Operating Permit
MO-0130401

Attachment A State of Missouri, Department of Natural Resources Operating Permit MO-0130401

Attachment B

Stormwater Management Plan Contacts and Responsibilities

Attachment B Stormwater Management Plan Contacts and Responsibilities

Department	Name and Title	MCM Responsibilities
Municipal Services	Lisa Reynolds, Director	<ul style="list-style-type: none"> MCM1: Public Education and Outreach (Implementation) MCM2: Public Involvement and Participation (Public Notices, City Council and SWOC Committee)
	Mike Jackson, Assistant Director	MCM1: Public Education and Outreach (Implementation)
	Josh Eis, Environmental Compliance Manager	<ul style="list-style-type: none"> MCM1: Public Education and Outreach MCM2: Public Involvement and Participation (Public participation programs) MCM3: Illicit Discharge Detection and Elimination MCM5: Post-Construction Stormwater Management (Stream buffer setback, on-site stormwater maintenance) MCM6: Pollution Prevention / Good Housekeeping MCM7: Industrial and High-Risk Runoff MCM9: Monitoring
	Ted Martin, Stormwater Manager	<ul style="list-style-type: none"> MCM8: Flood Control Projects
	Alex Lopez, Acting City Engineer	<ul style="list-style-type: none"> MCM4: Construction Stormwater Runoff Control MCM5: Post-Construction Stormwater Management (Flood plan management, on-site stormwater management, land disturbances) MCM8: Flood Control Projects
	Jeff Conway, Collection System Superintendent	<ul style="list-style-type: none"> MCM6: Pollution Prevention/Good Housekeeping (Sanitary sewer system maintenance, GIS mapping) MCM3: Illicit Discharge Detection and Elimination
	James Pollock, Stormwater Superintendent	<ul style="list-style-type: none"> MCM6: Pollution Prevention/Good Housekeeping (Storm sewer system maintenance, GIS mapping) MCM3: Illicit Discharge Detection and Elimination MCM8: Flood Control Projects (Reginal detention basin maintenance)
	Zan McKinney, Street Operations Superintendent	<ul style="list-style-type: none"> MCM6: Pollution Prevention/Good Housekeeping (Street sweeping, salt storage) MCM3: Illicit Discharge Detection and Elimination
Parks, Recreation, and Tourism	Morris Heide, Director	<ul style="list-style-type: none"> MCM1: Public Education and Outreach (Implementation) MCM6: Pollution Prevention / Good Housekeeping (PHFs Reduction Plan)
	Mike Hicks, Parks Manager	<ul style="list-style-type: none"> MCM1: Public Education and Outreach (Implementation) MCM6: Pollution Prevention / Good Housekeeping (PHFs Reduction Plan)

	Jeff Umbreit, Recreation Program and Facility Supervisor	<ul style="list-style-type: none"> • MCM1: Public Education and Outreach (Implementation) • MCM5: Post-Construction Stormwater Management (on-site stormwater maintenance at George Owen's Nature Center)
Community Development	Rick Arroyo, Assistant Director	<ul style="list-style-type: none"> • MCM4: Construction Stormwater Runoff Control • MCM5: Post-Construction Stormwater Management (Stream buffer setback, on-site stormwater maintenance, tree and open space preservation plans)
City Manager's Office	Meg Lewis, Communications Manager	<ul style="list-style-type: none"> • MCM 1: Public Education and Outreach • MCM 2: MCM2: Public Involvement and Participation