

CITY OF FARMINGTON

110 West Columbia Street
Farmington, Missouri 63640



Stormwater Management Program Plan 2024 Update

INTRODUCTION

This plan is an update of the City of Farmington, Missouri's Stormwater Management Plan, created in 2003 and last updated in 2021. This plan update reflects changing regulatory permit requirements and the establishment of new objectives and performance measurement standards.

This plan aims to reduce the harmful effects of stormwater runoff by allowing no significant increase in the rate of stormwater runoff resulting from new developments from project initiation through post-development and improve the quality of stormwater runoff from existing developments and municipal operations.

BACKGROUND

The City of Farmington owns and operates a regulated Small Municipal Separate Storm Sewer System (MS4) as defined in 10 CSR 20-6.200(D)16. The City must adopt a plan to implement specific minimum control measures to reduce the adverse effects of point-source and non-point-source pollutants that threaten the water quality and aquatic habitats of receiving streams. The programs in this plan are designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, protect water quality, and satisfy the water quality requirements of the Clean Water Act. The program includes management practices, control techniques, system design, engineering methods, and other provisions determined appropriate for controlling such pollutants.

According to the 2020 United States Census, the City of Farmington has a population of 18,217 and, as such, is categorized as a Group B-regulated MS4. (Serves a population of at least 10,000 but less than 40,000)

Comprehensive stormwater management was nonexistent in Farmington during most of its historic growth. Storm sewers that routed stormwater runoff from the buildings and streets underground piping and to local drainage ditches and creeks were installed in much of the downtown area and early subdivisions. Subdivision regulations were first adopted in 1973 and applied to residential developments. Although some engineered stormwater management measures were taken in residential development before and after subdivision regulations, the primary goal was to drain the stormwater effectively from the lots and remove it from the development. Neither the storm sewers installed downtown nor the grading and drainage ditches in many residential developments accounted for reducing the runoff rate or eliminating the harmful runoff effects.

Regulations to address comprehensive stormwater management were adopted in 1998. The stormwater management ordinance adopted at that time required a development permit for any developmental activity, a broadly defined term. Some ordinances were implemented over several years, resulting in minimal improvement in stormwater management practices.

In July 2012, the City approved new stormwater regulations (*Annex A*). Under the new rules, the City requires a registered design professional to design the stormwater management plan for all development, except for single-family residences located on an individual lot of record. Runoff must be controlled while development is in progress. Post-development runoff must be equal to or less than the pre-development runoff. Maintenance of stormwater structures on private property is also required. In addition, the City has adopted basic ordinance provisions prohibiting the introduction of pollutants into the storm sewer system.

Through the perpetuation of these existing programs and the implementation of some new programs, the City can positively guide future development and look to reduce the impact of existing development on the environment.

The City's Stormwater Management Program shall be reviewed at least once per calendar year.

MINIMUM CONTROL MEASURES (MCM)

Six essential minimum control measure elements should be considered in the City's Stormwater Management Plan to meet the regulatory requirements of the Clean Water Act.

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement and Participation
3. Illicit Discharge Elimination
4. Construction Site Stormwater Runoff
5. Post-construction stormwater Management in New Development and Redevelopment
6. Pollution Prevention in Municipal Operations

Within each MCM are listed Best Management Practices (BMPs), which should be measurable in their scope and intent. Each BMP should be tracked, and principles of adaptive management practices should be employed to achieve the measurable objectives.

MCM 1 - Public Education and Outreach on Stormwater Impacts

The City of Farmington believes educating the public is essential for successfully reducing contamination and pollutants entering area waterways. To accomplish the goals for Public Education and Outreach outlined in the Comprehensive General Permit, the City has set the following BMPs:

BMP 1: (Permit Sections 4.1.A and 4.1.B) *Target Audience and Pollutants* – The City of Farmington has identified the following audiences and their corresponding target pollutants:

<u>Target Audience</u>	<u>Target Pollutant(s)</u>
Residents	Grass Clippings and Leaf Litter
Developers/Construction Site Operators	Sediment Runoff

BMP 2: (Permit Section 4.1.C) Publish articles in the monthly newsletter that are sent with utility bills to all utility customers, targeting residents on the ordinances related to improper disposal of lawn clippings and leaf litter at least twice yearly. In addition to mailing the newsletters, the City will share the newsletter via social media.

Target Audience/Target Pollutant: Residents/Grass Clippings and Leaf Litter

Measurable Goal: The City will publish at least two articles per year.

Tracking and Adaptive Management: To the greatest possible extent, the City will evaluate the number of incidents of grass clippings and leaf litter that are blown into the street and not disposed of properly to see if there has been a change. When the newsletter is shared via Facebook, the City will measure the Facebook engagement average (dividing the total number of likes, comments, views, and shares by the number of and/or total followers who have seen them.)

BMP 3: (Permit Section 4.1.C) The City will maintain a webpage (<https://www.farmington-mo.gov/storm-water>) with information and links relevant to the target audience/target pollutants. Specifically, the City shall provide the Stormwater Pollution Prevention Policy statement and at least one link to an informational site geared toward the target audience and pollutants.

The City has provided links to YouTube Video (<https://www.youtube.com/watch?v=JWjiASd92ac>) from the Huntington Beach (West Virginia) Stormwater Utility regarding grass clippings and the threat to clean water.

The City also provides a link to a YouTube Video (<https://www.youtube.com/watch?v=Kt7k09GUHrg>) from the Water Quality Forum regarding Stormwater Best Management Practices For Construction.

Target Audience/Target Pollutant: Residents/Grass clippings and leaf litter; Developers and construction site operators/sediment runoff.

Measurable Goal: The page will be maintained by checking all links and updated as necessary at least once a year.

Tracking and Adaptive Management: The number of hits shall be tracked. The City shall evaluate which link(s) receive the most hits and, to the extent possible, assess the pollutant before and after updating with a new link(s).

BMP 4 – (Permit Section 4.1.C) Post at least four (4) times per year on Facebook to the target audience about awareness and prevention of the target pollutant(s).

Target Audience/Target Pollutant: Residents/Grass clippings and lawn litter.

Tracking and Adaptive Management: The city shall measure the Facebook engagement average (dividing the total number of likes, comments, views, and shares by the number of and or total followers who have seen them.) To the extent possible, the City will filter comments. With this information, the City shall see which messages have more engagement and if specific messages need to be changed, repeated, or emphasized.

BMP 5 – (Permit Section 4.1.C) The City will post a message on the electronic messaging Billboard on U.S. 67 Northbound about a topic related to the target pollutant.

Target Audience/Target Pollutant: Residents/grass clippings and lawn litter.

Measurable Goal: Post a message on the billboard about keeping grass clippings off the street. The message shall be posted at least three weeks per calendar year.

Tracking and Adaptive Management: To the greatest extent, the City will evaluate grass clippings on the street before and after the message is posted to see if a change has occurred. The City shall record the dates the message was posted. Traffic count data from an appropriate source shall be used to track exposure.

BMP 6: (Permit Sections 4.1.D) The City shall designate and maintain a yard waste collection area.

Target Audience/Target Pollutants: Residents/Grass Clippings and Leaf Litter

Measurable Goal: The City will operate and maintain a yard waste collection site available to the target audience where grass clippings and leaf litter may be disposed of.

Tracking and Adaptive Management: The City shall use location analytics and geo-fencing technology (after March 31, 2024) to measure the monthly number of visitors and unique visits to the yard waste site. The City will analyze how other educational efforts (website, social media, etc.) impact the number of violations, which the City's Code Enforcement Staff will measure). A violation shall be defined as one that is self-initiated or brought to the staff's attention by the complaint.

BMP 7: Citywide survey (Permit Section 4.1D)

Target Audience/Target Pollutant: Residents/Grass Clippings and Leaf Litter

Measurable Goal: The City shall use a public survey to be mailed out annually, along with a utility bill and other survey methods through social media.

Tracking and Adaptive Management: The survey participation will be tracked, and the effectiveness of BMP and the entire program will be evaluated.

MCM 2 - Public Involvement and Participation

The City of Farmington will strive to engage public participation in the implementation of the SWMP. The City has established the

following objectives for this Minimum Control Measure to achieve the public participation goals outlined in the Comprehensive General Permit.

- 1. Permit Renewal and/or Significant Changes To SWMP**
(Permit Sections 4.2.A, 4.2.B, and 4.2.C) Any proposed significant revisions of the SWMP and/or the draft renewal permit (including the SWMP) will undergo a public review process.

The City will notify all interested parties 30 days or more before renewal application or significant changes to the SWMP.

The City will hold a public meeting that shall be held on or after the date, the public review period ends.

Notice of the meeting shall be published in the Daily Journal at least 30 days before the meeting and shall include, at a minimum, the meeting's date, time, and location. Notice of the meeting shall also be posted on the City's website <https://www.farmington-mo.gov/storm-water> and one or more of the City's Facebook pages.

In addition, public input shall be encouraged via:

- o Email: tporter@farmington-mo.gov
- o Phone: (573)756-0608 to stormwater coordinator.
- o In person: 101 S Jefferson St, Farmington, MO 63640

On the City's website and Facebook pages.

Any public comment(s) received shall be responded to. Copies of the public comments and records of information submitted by the public received as part of the public notice process shall be retained and made available to the Missouri Department Of Natural Resources and/or the public by request.

- 2. General Concerns/Comments For All MCM's (Public Comment)** (Permit Section 4.2.D)

The City shall accept any public inquiries or concerns and take information provided by the public about stormwater-related topics at:

- Email: tporter@farmington-mo.gov
- Phone: (573)756-0608 to Development Services Director.
- In person: 101 S Jefferson St, Farmington, MO 63640

The City will track and note the topic, location, concern, etc.

3. Update City Council on the Stormwater Management Program

(Permit Section 4.2.F)

The Development Services Director shall update the City Council at least once annually regarding the Stormwater Management Program, including the status of and updates on the Stormwater Management Program.

The City shall evaluate its current program to ensure it complies with the General Permit at least annually.

(Permit Section 4.2.I)

An evaluation of the current Stormwater Management Program shall be done by a consortium of senior staff including, but not limited to, the Development Services Director, Public Works Director, City Engineer, City Administrator, and any other staff so tasked. This shall occur at least annually.

MCM 3 – Illicit Discharge Detection and Elimination (IDDE)

The City of Farmington will continue efforts to reduce the occurrence of illicit discharge. The City has identified those items in ordinance 215.010

To accomplish the goals for Illicit Discharge Detection and Elimination outlined in the Comprehensive General Permit, the City has set the following objectives for this Measure:

1. Maintain stormwater infrastructure information within the City's GIS mapping system. (Permit Section 4.3.A)

The City's GIS mapping system is maintained by SAM Managed Geospatial Systems and shall (**Permit Section 4.3B**):

1. Show the location of all MS4 outfalls.
2. Show the names and locations of all the receiving waters of the state that receive discharge from the MS4 outfalls.
 - a. Each outfall shall have its unique number or name.

- b. Dates on which the outfall locations were verified, or the last field survey shall be recorded.
 - c. the date it was added to the storm sewer system shall be recorded for newly added outfall locations.
- 3. Show the boundaries of the City.
- 4. Be readily available and used by field staff as needed.
- 5. Be available to the Missouri Department of Natural Resources upon request.
- 6. (See attached listing)

2. Enforcement of the City's ordinances related to illicit discharges (Permit Section 4.3.C):

- a. Identify common pollutants that are prohibited (Section 215.010(A)(16))
- b. Fats, Oils and Grease Ordinance (Section 710.300(C))
- c. City regulations will be enforced to ensure identified violators comply with code requirements (Sections 215.010(B) and 410.190))

3. Perform inspections of 60% of all outfalls through dry weather screenings during each permit cycle (Permit Section 4.3.D)

See Attached Illicit Discharge Policy and Procedures Manual (Permit Section 4.3.I)

- 4. The City shall identify priority areas to help prevent further illicit discharges. The priority areas (as they are identified) will be added to the City GIS system as part of the stormwater infrastructure layer. (See Attached Listing)**
- 5. The IDDE Program shall be reviewed annually and updated as needed.**
- 6. During orientation, all new employees shall be shown a training video regarding recognizing illicit discharge. New employees with Fleet Maintenance, Parks and Recreation, and Public Works shall be shown a "good housekeeping" video and a video recognizing illicit discharge. (Permit Section 4.3.Q)**

MCM 4 - Construction Site Stormwater Runoff (Permit Section 4.4)

The City has existing ordinances (Section 420.060) to require erosion and sediment control BMPs at construction/land disturbance sites greater than or equal to one (1) acre or less than one acre if the construction activity is part of a larger standard plan or development or sale that would disturb one acre or more. **(Permit Section 4.4.A)**

The Stormwater Ordinance requires the developer to submit a Stormwater Pollution Prevention Plan (SWPPP) for construction sites requiring a Missouri Department of Natural Resources Land Disturbance Permit. The Stormwater Ordinance (420.040(2)) requires that developers and/or SWPPP design engineers meet with relevant City staff to review the SWPPP before issuance of a Development Permit. (See attached SWPPP Checklist) **(Permit Section 4.4.B)**

The City shall review all ordinances and MCM 4 BMPs related to construction site runoff at least annually. It shall amend and create as needed to control construction site runoff further. **(Permit Section 4.4.H and 4.4.M)**

The City's stormwater ordinance allows authority for City staff to inspect and enforce the regulations for control of pollutant sources, most notably erosion and sediment controls, at a construction site. (Section 420.170(A)) **(Permit Section 4.4.C)** See attached Construction Site Inspection Checklist (Used by City staff and construction site operator). The City will maintain copies of inspection reports and written communications within the respective permit file. **(Permit Section 4.4.G)**

The City has enforcement protocols to ensure compliance with required erosion and sediment controls and other pollutant controls. (Section 420.190) **(Permit Section 4.4.D.)**

The construction site operator is responsible for conducting BMP inspections at least every fourteen (14) days when construction is active, and/or within 72 hours of any storm event, and within 48 hours after any storm event equal to or greater than a 2-year storm has ceased. Section 420.060(A)(4)(d) **(Permit Section 4.4.E)**

The City maintains an inventory of public and private land disturbance sites defined in **Permit section 4.4** within our permitting software. **(Permit Section 4.4.F)**

The City maintains a webpage: <https://www.farmington-mo.gov/storm-water> that provides methods for reporting concerns about stormwater, including construction site runoff. **(Permit Section 4.4.J)**

All inspectors and plan reviewers for the Development Services Department shall receive training on construction site runoff control at least once per permit cycle. **(Permit Section 4.4.K)** Inspectors shall conduct inspections of construction sites in accordance with Departmental policy and procedures, which are attached to this document. **(Permit Section 4.4.L)**

Adaptive Management Principles. **(Permit Section 4.4.M)** City staff, including but not limited to the Development Services Director, Public Works Director, City Engineer, and City Administrator, shall review, at a minimum annually, the Construction Site Stormwater Runoff Control Program and evaluate the relevant ordinances, review relevant procedures, inspection procedures, enforcement procedures, receipt of public information procedures, and effectiveness of training procedures to ensure compliance the permit requirements.

MCM 5 - Post-Construction Stormwater Management

The City of Farmington continues to promote using structural and non-structural design and management practices to reduce the post-construction runoff of pollutants into the MS4. The City shall continue to develop, implement, and enforce a program to address the quality of long-term stormwater runoff from new development and redevelopment projects that disturb equal to and greater than one acre.

City ordinance requires a stormwater management plan for land disturbances that requires a permit from the Department of Natural Resources, which shall be designed to safely manage stormwater runoff resulting from the critical duration of the storm event. The plan will identify infrastructure improvements designed to reduce stormwater discharge rates to pre-development levels through detention of excess runoff. Stormwater management plans shall be prepared by a professional engineer registered in Missouri. (Chapter 420.070) **(Permit Section 4.5.A and 4.5.B)**

Pre-Construction Plan Review – A cursory review of the submitted plans is done by the City Engineer.

In addition to this cursory review, the City utilizes the services of Dr. Charles Patterson, Ph.D, P.E., CFM, of Allgeir, Martin, and Associates, to

review the stormwater plans. Dr. Patterson interacts directly with the design engineer and conveys his final report to the City Engineer.

(Permit Section 4.5.C)

During Construction – City ordinance 420.170 requires the owner or authorized agent to employ a registered design professional to inspect all stormwater improvements during construction. The City may also conduct inspections.

Post-Construction (420.180) – The owner or authorized agent shall utilize methods, approaches, and techniques in the design and construction of stormwater management improvements that will allow for the improvements to be properly maintained.

The owner or authorized agent shall be responsible for maintenance of all stormwater management improvements not officially accepted by the City, including those on any lot that is not part of a common promotional plan. Maintenance of property part of a common promotional plan is the responsibility of the authorized agent or owner until which time the stormwater management plans are accepted by the City or by a board, association or other permanent maintenance organization. **(Permit Section 4.5.E)**

(Permit Section 4.5.F) In the event of non-compliance or violation of requirements related to post-construction BMPs, the City (420.190) has the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance.

The city encourages developers to employ measures to improve water quality. Such measures include bioretention, sand filters, hydrodynamic separators, sediment forebays, etc. As such, *any* water quality post-construction BMPs shall be inventoried and tracked.

(Permit Section 4.5.H)

The City will annually review its Post-Construction Site Stormwater Management in the New Development and Redevelopment Program, evaluate the effectiveness of the overall program, and determine if changes are needed.

MCM 6 – Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Farmington promotes “good housekeeping” amongst relevant departments. To accomplish the goals outlined in this SWMP for Pollution Prevention and Good Housekeeping, the City has established numerous procedures. To achieve the goals for

Pollution Prevention and Good Housekeeping outlined in the Comprehensive General Permit, The City has set the following objectives for this Measure:

1. Continue Training for relevant City staff for Pollution Prevention, Spill Control and Response, and Illicit Discharges **(Permit Sections 4.6.A, 4.6.B, and 4.6.C)**
2. Maintaining a list of the departments participating in the “Good Housekeeping MCM.” The following departments of the City of Farmington participate in the MS4 Good Housekeeping MCM **(Permit Section 4.6.D:)**
 - a. Public Works
 - i. Street Department
 - ii. West and East Treatment Plants
 - iii. Sanitary Sewer
 - b. Fleet Maintenance Department
 - c. Parks Department
 - d. Fire Department
3. Maintaining a list of facilities that have NPDES permits **(Permit Section 4.6.E):**
 - a. West Wastewater Treatment Plants MOR04C016
 - b. Farmington Regional Airport MORA25999
 - c. Farmington Water Park MOG760204
4. Controls for reducing or eliminating the discharge of floatables and pollutants from municipal facilities listed above.
 - a. Inspection of all relevant municipal-owned or operated facilities for stormwater issues
 - b. Procedures for proper disposal of waste removed from City MS4 structures and other areas.

4.00 SUMMARY

The City of Farmington is committed to responsive and responsible environmental stewardship in its municipal operations and development practices. The City Council and Administration strive to provide its staff of qualified professionals with all of the resources necessary to ensure that equipment and facilities are designed and equipped to meet that objective. The Planning and Zoning Commission and City Council are equally committed to ensuring that the local ordinances are regularly updated to

meet the requirements of regulatory changes and emerging best management practices.

The 2024 stormwater management plan update reflects the City's continued commitment to growing our local economy, providing safe and affordable housing options for our residents, and protecting and preserving the surrounding environs.