MS4 STORMWATER MANAGEMENT PLAN

RAYMORE

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MS4 PERMIT #M0R004C036
2021-2026

Prepared by:
City of Raymore
Engineering Department
100 Municipal Circle
Raymore, MO 64083

Dec. 10, 2021

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CONTACT INFORMATION & SWMP RESPONSIBILITY

Permittee Name:	City of Raymore, Missouri
Co-Permittee Name:	Not Applicable
Type of Entity:	Municipality
Total Area:	17.65 square miles
County(s):	Cass
Mailing Address:	100 Municipal Circle, Raymore, Missouri 64083
Primary Contact:	Lorie Crandell, Stormwater Quality Specialist
Phone Number:	816-892-3019
Email:	lcrandell@raymore.com
Secondary Contact:	Michael Krass, Director of Public Works
Phone Number:	816-331-1852 (Engineering Department main line)
Email:	mkrass@raymore.com

The Director of Public Works is the person of authority over the City's SWMP; however, the Stormwater Quality Specialist is the person directly involved with day-to-day activities related to the City's SWMP, including each Minimum Control Measure (MCM) and measurable goal. Implementation of this SWMP requires active involvement and participation from other City departments. Therefore,the Stormwater Quality Specialist routinely engages with other department staff in the development and execution of the SWMP, including each of the MCMs and measurable goals.

PERMIT COVERAGE & APPLICABILITY (SECTION 1.0)

The City's MS4 permit authorizes discharges of stormwater from communities as defined in 10 CSR 20-6.200(D)24**.**

The General State Operating Permit categorizes Missouri communities into the following groups based on the population served as determined by the most recent Decennial Census at the time of the permit issuance, the type of community, and the co-permittee situation.

GROUP A	GROUP B	GROUP C
Traditional community that serves a population of less than 10,000, OR	Traditional community that serves a population of at least 10,000 but less than 40,000, OR	Traditional community that serves a population of 40,001 or more, OR
Class 2 counties; Non-traditional such as universities, Federal facilities	Class 1 counties	Co-permitted communities

Based on population, the City of Raymore is a **Group B** community.

The City's MS4 permit authorizes the following types of discharges:

1. Stormwater Discharges. The permit authorizes stormwater discharges to waters of the state from the City, in compliance with Section 2.1.A of the City's MS4 permit.
2. Non-Stormwater Discharges. The City is authorized to discharge the following non-stormwater sources provided the City has not determined these sources to be substantial contributors of pollutants to the City's MS4:
   - Water line flushing;
   - Landscape irrigation and lawn watering;
   - Diverted stream flows;
   - Rising groundwater and springs;
   - Uncontaminated groundwater infiltration (as defined by 40 CFR 35.200(b)(20));
   - Discharges from potable water sources;
   - Foundation or footing drains;
   - Air conditioning condensation;
   - Irrigation water;
   - Water from crawl space pumps;
   - Individual residential car washing;
   - Flows from riparian habitat and wetlands;
   - Street and sidewalk wash water, water used to control dust, that does not use

detergents;
- Dechlorinated and uncontaminated residential swimming pool discharges; and
- Discharges or flows from emergency firefighting activities. Firefighting activities do not include washing of trucks, run-off water from training activities, and similar activities.

PERMIT RESTRICTIONS AND EXEMPTIONS (SECTION 2.0)

The City is required to prohibit non-stormwater discharges and stormwater discharges that combine with sources of non-stormwater into the City's MS4, except where:

1. Non-stormwater discharges comply with a separate MS4 permit; and
2. Authorized by Section 1.1.D of the City's MS4 permit.

Discharge limitations:

1. The City is required to implement BMPs via an iterative process to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) into the MS4 for the goal of attainment with Missouri's Water Quality Standards.
2. The City is required to implement and enforce a Stormwater Management Program per the requirements listed in the MS4 permit in accordance with Section 402(p)(3)(B)(iii) of the Clean Water Act (CWA), corresponding NPDES regulations, 40 CFR 122.34, 40 CFR 122.28(d)(2), and in accordance with the Missouri Clean Water Law (MCWL) and its implementing regulations under 10 CSR 20-6.200.
3. The City is required to comply with all provisions and requirements contained in the MS4 permit and with the associated Stormwater Management Program including plans, ordinances, and schedules developed in fulfillment of the MS4 permit.
4. If the MDNR determines a community is causing or contributing to in-stream excursions of Missouri's Water Quality Standards, then the MDNR may require corrective action(s) or require an application for a site-specific permit to ensure that BMPs are being implemented via an iterative process to reduce pollutants to the MEP.
5. Newly designated communities applying for coverage under the general MS4 permit and discharging to waterbodies or watersheds subject to an existing EPA approved or established Total Maximum Daily Load (TMDL) may be denied coverage under the general MS4 operating permit and required to apply for and obtain a site-specific MS4 operating permit for stormwater discharges from their regulated MS4.

STORMWATER MANAGEMENT PROGRAM AND PLAN (SECTION 3.0)

To the extent allowable under State and local law, a Stormwater Management Program must be developed, implemented, and enforced according to the requirements of the City's MS4 permit. The permit includes specific terms and conditions, which are the requirements needed to meet the MS4 regulatory requirements.

1. Existing permittees are required to assess program elements that were described in their previous MS4 permit, modify as necessary, and/or implement new elements, as necessary.
2. New permittees are required to have the program fully implemented within five (5) years of their MS4 permit issuance.

As part of the Stormwater Management Program, the City is required to update or develop a SWMP, with appropriate appendices and supplemental attachments explaining the Stormwater Management Program. The City is required to create and maintain the SWMP describing schedules, procedures, contacts or other items listed under Section 4.0 of the City's MS4 permit. The SWMP may be electronic**.**

1. The City is required to maintain the SWMP to ensure consistency with the implementation, continuity of the Stormwater Management Program, and iterative reviews of programmatic BMPs and procedures.
2. The City's SWMP does not go through MDNR approval and is not incorporated into the MS4 permit issued by the MDNR.
3. The City's SWMP is required to be updated or developed within 90 days after the renewal of the MS4 permit.

The City is allowed to add supplemental items to the SWMP, including, but not limited to:

- Maps;
- Standard Operation Procedures (SOPs);
- Inspection forms;
- Sample data;
- Operations and Maintenance Manual;
- Website or social media account tracking;
- Stream Team Activity Reports;
- Tracking and evaluation documents; and
- Documentation of agreements for co-permittees and/or cooperative agreements.

The City is required to implement programmatic BMPs consistent with the provisions of the MS4 permit to achieve compliance with the standard of reducing pollutants to the maximum

extent practicable per 40 CFR 122.34.

The City is allowed to replace or modify ineffective BMPs with effective BMPs. If the name of a community contact changes, the City is required to provide updated contact information on the next MS4 Stormwater Management Program Annual Report and/or via email to the MDNR at MS4@dnr.mo.gov.

The City is required to conduct an annual review of their Stormwater Management Program. This is recommended to be in conjunction with preparation of the MS4 Stormwater Management Program Annual Report, required under Section 5.0 of the MS4 permit.

MINIMUM CONTROL MEASURES (SECTION 4.0)
The City's MS4 permit requires the following six (6) MCMs to be included in the SWMP**:**

- Public Education and Outreach on Stormwater Impacts
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

4.1 MCM 1: Public Education and Outreach on Stormwater Impacts (4.1)

This MCM requires the City of Raymore to implement a public education program to distribute educational materials to the community and/or conduct equivalent outreach activities regarding the impacts of stormwater discharges on bodies of water and the steps the public can take to reduce pollutants in stormwater runoff. The public education and outreach program is required, at a minimum, to include the following:

4.1.A The City is required to target specific audiences who are likely to have significant stormwater impacts.

Choose which is applicable:

☒ Traditional community (cities and counties) will address the residents served;
or
Non-traditional community will address the community served as listed below:
☐ a) Universities will target the faculty, other staff, and students;
☐ b) Military bases will target military personnel (and dependents) and employees (including contractors)
☐ c) Prison complexes or other multi-building complexes will target staff & applicable contractors.

Choose which is applicable:

☐ Group A: No requirement for additional audiences
☒ Group B: A minimum of one (1) additional audiences
☐ Group C: A minimum of two (2) additional audiences

The target audiences may remain the same for the entire MS4 permit cycle or may change if the tracking and adaptive management review shows a new target may be better for the City. Any changes are required to be stated and explained in the MS4 Stormwater Management Program Annual Report.

TABLE I -Target Audiences

Choose which is applicable:

☐ Schools, educational organizations, or youth service and youth groups;
☐ Businesses, including commercial facilities, home-base and mobile businesses;
☐ Institutions or formal organizations such as churches, hospitals, service organizations;
☒ Developers or construction site operators;
☐ Homeowner or neighborhood associations;
☐ Industrial facilities;
☐ Local government;
☐ Contractors;
☐ Visitors/ tourist; and
☐ Other: _____

4.1.B The City is required to target specific pollutant(s) in the City's education program (such as, but not limited to, those listed in Table II). The City is required to have a minimum of one (1) target pollutant for each target audience from Section 4.1.A above.

TARGET AUDIENCES & POLLUTANTS

Target Audiences	Explanation of why audience was chosen	Target Pollutants
Residents	Improper disposal of yard waste into streets and drains. Pet waste and HHW. Litter. Stormwater runoff from downspouts and sump pumps.	Household Hazardous waste Yard Waste Water Runoff Litter Fertilizers
Developers and Construction Site Operators	Improperly managed land disturbance site lead to sediment runoff and trash/waste/floatables leaving the site	Sediment Petroleum products Floatables Concrete Washout

4.1.C The City must develop or utilize appropriate educational resources to be used as BMPs (materials,events, activities, etc.) in conjunction with the selected pollutants for the selected target audiences.

Choose which is applicable:

☐ Group A: Each permit cycle, two (2) outreach and education BMPs
☒ Group B: Each permit cycle, four (4) outreach and education BMPs
☐ Group C: Each permit cycle, five (5) outreach and education BMPs

OUTREACH AND EDUCATION BMPs

Target Audience	Target Pollutants	Educational BMP's	Goal of BMP	Permit Year/Frequency
Residents	Stormwater Runoff Yard Waste	Social Media Posts	To reduce illicit discharge into storm system	
Residents	Yard Waste	Targeted Mailings	To increase awareness for "Only Rain Down the Drains"	Four (4) times a year
Developers Contractors Single-Family Home Builders	Sediment Floatables Concrete Washout	Contractor and Developer Training	To reduce illicit discharge from building sites	Contractors must complete training/certificati on yearly
Residents	Litter Pet Waste Yard Waste	Permanent Stormwater Related Signage	To reduce illicit discharge into storm system	As opportunities arise at new BMP's, native areas,rain gardens

4.1.D The MS4 Operator must create opportunities, or support activities that are coordinated by citizen groups, for residents and others to become involved with the Stormwater Management Program. The activities (BMPs) must have an effort to impact stormwater runoff by improving water quality.

Choose which is applicable:

☐ Group A: Each permit cycle, one (1) involvement BMP
☒ Group B: Each permit cycle, two (2) involvement BMPs
☐ Group C: Each permit cycle, three (3) involvement BMPs

INVOLVEMENT BMPs

BMP	Measurable Goal	Target Audience	Permit Year	MS4 Operator Support & Adaptive Management
Stream/Lake or Watershed clean-up event	400 yards of stream/ streambank/ watershed	Residents	2021 2022 2023 2024 2025	Plan, advertise, and staff the event. Provide materials and disposal. Track the distance cleaned, the amount of waste removed, and attendance. Use waste measurements to determine priority areas for litter entering stormwater or areas for illegal dumping.
Household Hazardous Waste Collection event	Once Annually	Residents	2021 2022 2023 2024 2025	Assist in planning Provide staff/facility Advertise Track amount collected Track changes due to education. Track if illicit discharges were reduced due to education and event.

4.1.E The MS4 Operator shall create or support the involvement of BMP(s) in Section 4.1.D.
-See table above

4.1.F Using adaptive management as required in parts 4.1.A.3.d and 4.1.B.1.c, all MS4 Operators shall review their Public Education and Outreach on Stormwater Impacts Program, at minimum, annually and update implementation procedures and/or BMPs as necessary within the requirements of this permit.
This may be conducted when preparing the annual MS4 Stormwater Management Program Report for submittal to the Department.

Annual review of MCM 1			
Year reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021			
2022			
2023			
2024			
2025			

4.2 MCM 2: Public Participation

The permittee shall develop and implement a comprehensive public participation program that provides opportunities for public participation in the development and oversight of the permittee's Stormwater Program.

This program must provide opportunities for public participation of the permittee's permit renewal and shall, at a minimum, comply with any state and local public notice requirements. Additionally, the program must provide opportunities for public participation in activities related to developing and implementing the Stormwater Management Program.

The public participation program shall, at a minimum include the following:

4.2.A The MS4 Operator shall hold a public notice period for a minimum of thirty (30) days to allow the public to review the draft permit, and description of the MS4s Stormwater Management Program (this may be the SWMP) prior to the submission of the renewal application to the Department.

4.2.B As part of the public notice, if the MS4 Operator has a public website, the required items shall be posted on their website with a way to submit comments, along with the standard public notice methods for the MS4.

1. The permittee shall respond to comments received during the comment period
2. The MS4 Operator shall retain copies of any public comments and records of information submitted by the public received as part of the public notice process. These comments and responses shall be made available to the public or the department upon request.

4.2.C The MS4 Operator shall hold a public information meeting to provide information on, or describe the contents of, the proposed Stormwater Management Program. This meeting shall be advertised at least thirty (30) days prior to the public meeting.

1. As part of the notice of public meeting, if the MS4 Operator has a public website, the MS4 Operator shall post on that site, along with the standard public notice methods for the MS4. The notice of the public informational meeting, including the date, time and location.
2. The meeting must be held within the service area of the MS4. Co-permittees shall hold the meeting within the boundaries of each co-permittee.

Dates of Public Notice:
Dates of Meeting Notice:
Date of Meeting:
Location (or virtual)

4.2.D The MS4 Operator shall have a publicly available method to accept public inquiries, or concerns, and to take information provided by the public about stormwater and stormwater related topics.

Method used to accept public inquiries or concerns:

The City accepts comments, concerns, and inquiries regarding stormwater issues via the City's website, by telephone, or in person. City staff respond to all such correspondence by email or phone call, typically within one (1) business day.

https://www.raymore.com/residents/city-services/report-a-concern

Explain how these reports are tracked:

The City utilizes a Request Tracker system. The number of inquiries, concerns, work orders, correspondence and resolutions can be tracked for responsiveness and resolution.

4.2.E If the MS4 Operator utilizes a stormwater management panel or committee, the MS4 Operator shall provide opportunities for citizen representatives on the panel or committee. The attendance of the meeting shall be recorded.

The City does not utilize a stormwater management panel or committee.

4.2.F If the permittee has a governing board such as; County Council, City Council, or Board of Curators, a representative of the MS4 Operator, who is familiar with the MS4 Stormwater Program, shall provide an update to the governing board. This shall be conducted at minimum, annually with the status of, or updates on, the Stormwater Management Program, and compliance with the Stormwater Management Program.

Permit year	Date the governing board was updated	Method used to update the governing board	Name of MS4 representative(s)
2021		**Staff Report/ Council Meeting**	**Michael Krass**
2022			
2023			
2024			
2025			

4.2.G Existing permittees: Are required to evaluate their current program to ensure it complies with the MS4 permit and is promoted to the community. Existing permittees will modify their program, as necessary, and develop and implement elements, as necessary.

4.2.I Using adaptive management, all MS4 Operators shall review their Public Participation Program, at minimum, annually and update implementation procedures as necessary within the requirements of this permit. This shall be used to review how to best reach the public, the effectiveness of the mechanisms, the effectiveness of reaching the public and the MS4 Governing board and if the community and MS4 government are working together for water quality. Any additional events and/or BMPs shall be acknowledged in the Stormwater Management Program report.

Annual review of MCM 2			
Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021			

2022			
2023			
2024			
2025			

4.3 MCM 3. Illicit Discharge Detection and Elimination (IDDE) (4.3)

The MS4 Operator shall implement, and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200 at 40 CFR 122.26(b)(2)) into the regulated MS4. The illicit discharge detection and elimination program shall at minimum, include the following:

4.3.A A current storm sewer system map that shall be updated as needed to include features which are added, removed, or changed. This map may be paper or electronic.

This storm sewer map must show, at a minimum:

1. The location of all MS4 outfalls. **Completed?**
☒ **Yes**
☐ No; Explain: (Only allowable for newly regulated communities or enforcement agreement)

2. The names and locations of all receiving waters of the state that receive discharges from the MS4 outfalls. **Completed?**
☒ **Yes**
☐ No; Explain: (Only allowable for newly regulated communities or enforcement agreement)

3. The boundary of the regulated MS4 area. **Completed?**
☒ **Yes**
☐ No; Explain: (Only allowable for newly regulated communities or enforcement agreement)

4. The map will be readily available & used by field staff as needed. **Completed?**
☒ **Yes**
☐ No; Explain: (Only allowable for newly regulated communities or enforcement agreement)

5. The map and any accompanying necessary information will be made available to the MDNR upon request.

Explain how the City achieves the items above:

The City uses Geographic Information Systems (GIS) to identify and maintain the City's storm drainage system, including outfalls, and maintains a Watershed and Outfall Map to show the locations of watersheds and known outfalls within the City limits. Outfall locations are determined based on the definition of "outfall" included in the City's MS4 permit. The City updates GIS data when new data comes available from the MDNR, Engineering plans, and/or field data.

The map is accessible to view on the City's stormwater web page and the link below:

Stormwater Outfall Map
Yr 2021 - Representative Outfalls

4.3.B The City must record the sources of information used for the map and track, at minimum:

☒ A numbering or naming system of all outfalls;
☒ Dates that the outfall locations were verified/or last field survey;
☒ For newly added outfalls, the date that it was added to the storm sewer system.

Explain how the City records sources of map information and tracks the above items:

The City's GIS system provides a numbering system for the City's outfalls and electronic records are created by inputting/updating field data track the dates that outfalls were verified and/or inspected and as-built construction plans for added City infrastructure

4.3.C. To the extent allowable under state, or local law, through ordinance(s), or other regulatory mechanism(s), the permittee shall effectively prohibit, unauthorized non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions. Identify in the SWMP the regulatory mechanism(s) the permittee will use to effectively prohibit illicit discharges into the MS4 by including a link to or a copy of the relevant sections.

The City has a completed Illicit Discharge Ordinance in place. City of Raymore Municipal Code 545.445 Nuisances. It is available on the City's website.

Municipal Code 545.445 Nuisances

Attach a copy of, or include a link to, the applicable ordinance, enforcement procedures, and actions:

UDC 450 Stormwater Management

UDC 480 Enforcement

4.3.D A dry weather field screening strategy.

1. The City is required to conduct (or have conducted on their behalf) outfall field assessments. The screening will be conducted during dry weather conditions (a minimum of 72 hours after the last precipitation event) to check for the presence of a discharge.
a. A minimum of 60% of all outfalls are required to be screened during the permit cycle.
b. Priority areas, such as those listed in 4.3.H, will be screened each year.

SOP IDDE 3.3 Outfall Inspections

	Amount (% or #) per year of permit cycle	Any specific priority areas included:
Permit year 1:	**12%**	***See Section 4.3.H***
Permit year 2:	**12%**	***See Section 4.3.H***
Permit year 3:	**12%**	***See Section 4.3.H***
Permit year 4:	**12%**	***See Section 4.3.H***
Permit year 5:	**12%**	***See Section 4.3.H***

2. This screening is required to include a checklist or other tracking device to ensure a complete inspection of each outfall, enhance consistency, and to track the field screening. This will be used regardless of the presence of dry weather flow. When discharge is present, the checklist or tracking device will note the following general observations and physical characteristics at a minimum:

CHECKLIST MINIMUMS:
- **Date and time;**
- **Weather conditions and temperature (air & water);**
- **Color of discharge;**
- **Estimate of flow rate (this may be noted qualitatively);**
- **Odor;**
- **Surface scum, algal bloom, floatables or oil sheen present;**
- **Deposits or stains (note the color);**
- **Turbidity (may be noted qualitatively);**
- **Stream impact including vegetation, fish, wildlife;**
- **Length of impacted stream; and**
- **Notes of an obvious source of flow (such as lawn irrigation, etc.)**

4.3.E The City is required to maintain diagnostic monitoring procedures to detect and investigate unknown non-stormwater flows as part of the dry weather screening program. These procedures are for possible illicit discharges, and may be collected and analyzed by a contracted lab or similar agreement with another entity who is equipped and experienced in sample collection and analysis.

1. The diagnostic monitoring will include sampling unknown discharge from City outfalls that are found to be flowing or ponding more than 72 hours after the last precipitation event and considered to be an illicit discharge.

2. The samples will be analyzed for relevant parameters to determine if a pollutant is involved.
   a. Relevant parameters will need to be determined on a case by case basis depending on the nature of the discharge and what the potential sources may be.
   b. The City must have the ability to sample for and analyze the samples. This may be done through a contract lab or similar agreement.
   c. Possible parameters sampled for and analyzed when deemed applicable include, but are not limited to pH; oil and grease; E. Coli or fecal coliform; surfactants for fluorescence concentration; specific conductivity; ammonia; chlorine; dissolved oxygen; and fluoride/hardness.

Illicit Discharge Detection and Elimination - Outfall and Priority Area Inspections - Dry Weather Sampling
SOP IDDE 3.1 - Call in Inspections
SOP IDDE 3.2 - Opportunistic Illicit Discharge Observation

4.3.F The City is required to maintain procedures for tracing the source of an illicit discharge. If initial screening indicates that a dry weather discharge contains pollutants, or if an illicit discharge is suspected from another reporting method, the source must be traced. These procedures will include mechanisms to locate and follow stormwater infrastructure.
SOP IDDE 3.3 - Outfall Inspections
SOP IDDE 3.4 - Tracing Illicit Discharges

4.3.G The City is required to maintain procedures for removing the source of the discharge. After locating the source, the pollutant and source must be removed. While the exact procedure will depend on the source and the circumstances, the City must maintain any necessary contacts with appropriate entities that may be needed for these procedures (such as an environmental cleaning company). This information will be made available to the responsible staff.

SOP IDDE 3.5 - Illicit Discharge Elimination and Enforcement

Attach a copy of, or explain, the possible procedures for removing the source of an illicit discharge. Include names and contact for environmental cleaning companies that may be used.
Procedures for eliminating the source of an illicit discharge may be found in:

SOP IDDE 3.4 - Tracing Illicit Discharges

The City may call upon the Public Works Operations Department, the Stormwater Specialist and the South Metro Fire Department to address removal of the source of illicit discharge.

The City has an on-call environmental consulting firm to provide advice in matters of regulatory compliance and remediation of spills and/or pollutant sources discovered. The City will utilize the on-call consultant's contractor for any remediation that may be needed.

The City's current on-call environmental consultant is:

Environmental Works, Inc
1731 Locust Street
Kansas City, MO
64108
816-285-8410

4.3.H In order to prevent further discharge, the City is required to identify priority areas.

- Areas with evidence of on-going illicit discharges;
- Areas with a past history of illicit discharges;
- Certain land use influencing storm sewer/proximity of potential pollutant sources;
- Areas of higher population density;
- Neighborhoods with on-site sewage systems;
- Areas with known litter or dumping issues;
- Areas with large or increased number of citizen complaints; and
- Industrial areas.

Annually, the City is required to evaluate this priority area list and/or map and update as necessary to reflect changing priorities.

The City has a Priority Area map available on its City website. The City has identified and mapped 30 locations of a "higher likelihood" for potential illicit discharge. It is updated as commercial, industrial, and environmentally sensitive areas are constructed within the City, or as conditions above are encountered.

PERMIT YEAR	PRIORITY AREAS

1	**Inspect 25%**
2	**Inspect 25%**
3	**Inspect 25%**
4	**Inspect 25%**
5	**Inspect 25%** **Re-evaluate the overall focus and effectiveness of the priority area inspection program and update as necessary.**

4.3.J The City must conduct investigations in response to field screening discoveries, spills, or in response to complaints from the public, municipal staff, or adjacent communities.

1. Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment.
2. Investigate within five (5) business days, on average, any complaints, reports, or monitoring information that indicates a potential illicit discharge which does not constitute a threat to human health, welfare, or the environment.
3. If illicit connections or illicit discharges are observed related to, discharging to, or discharging from an adjacent community's municipal storm sewer system, the City must notify the other community within 24 hours of discovery or as soon as practicable.

Attach a copy of, or explain any details on, the timeline for investigations.

Procedures and timelines for investigating illicit discharges, spills, or stormwater complaints are contained in the City's Illicit Discharge SOPs.

ADJACENT COMMUNITY	CONTACT PERSON(S)	PHONE/EMAIL
City of Lee's Summit	Kara Taylor	Kara.Taylor@cityofLS.net
City of Belton	Greg Rokos	816-331-4311

4.3.K The City is required to have procedures for appropriate enforcement, this may include fines, the ability to collect clean up and abatement costs, and actions to ensure that the City's illicit discharge ordinance (or other regulatory mechanism) is being implemented.

Attach a copy of, or include, a written description of the enforcement procedures. This will include a copy or link to the ordinance and/or other regulatory mechanism that the City will use to enforce the prohibition of illicit discharges into the MS4.

UDC 480 Enforcement

4.3.L The City is required to maintain a database, or other centralized system, to track dry weather field screenings, spills, incidents, and investigations.

1. Tracking mechanisms will be used for incidents, investigations, enforcement, and follow up. This data will be used to continuously evaluate the effectiveness of the IDDE program. The data will be reviewed to determine if there is a new priority area. The City is required to record annually, at a minimum:
   a. Number of outfalls screened;
   b. Number of complaints received and investigated; and
   c. Number of illicit discharges removed.

2. The City is required to document all investigations to track, at a minimum:
   a. The date(s) the illicit discharge was observed and investigated;
   b. Summary of procedures used to investigate the illicit discharge;
   c. The outcome of the investigation including sample results and findings;
   d. Any follow-up of the investigation including clean up, enforcement actions, visits to confirm the illicit discharge has been removed; and
   e. The date the investigation or issue was closed or resolved.

How is tracking of dry weather field screenings, spills, incidents, and investigations being maintained?

At this time, tracking is maintained by manual data entry and review. The City is investigating software that will incorporate a more centralized system.

4.3.M The City is required to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. This may work with part 4.1 and part 4.6 of the MS4 permit (MCM #1 and MCM #6).

How are City staff, businesses, and the general public informed of the hazards associated with illegal discharges and improper disposal of waste?

The City uses multiple mechanisms to educate staff, businesses, and the general public regarding illegal discharges and improper disposal of waste, including the City's website, social media outlets, and targeted mailings. A kiosk with fact sheets and brochures is prominently displayed at City Hall. The storm drain stenciling program provides a clear clean water message on all storm inlets.

4.3.Q The City must develop and implement or maintain a training program for all municipal field staff who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system. This will include staff who may handle materials which may become an illicit discharge and discharges through spills, improper waste disposal, mismanagement, improper vehicle or equipment washing or rinsing.

MUNICIPAL STAFF TRAINING PROGRAM

STAFF	FREQUENCY	TOPIC(S)	TRAINING PROVIDER/ METHOD
New Field Employees	Within the 1st year of hire.	MCM's 3,4, and 6	Trainer: Lorie Crandell, Stormwater Quality Specialist Method: In person or video/powerpoint presentation
Public Works Operations and Engineering	Annually	MCM's 3,4, and 6	
Parks Operations	Annually	MCM's 3,4, and 6	

Reviews of the training effectiveness will be considered after municipal site inspections or after an incident occurs. If a certain department or facility did not perform the way they were trained, or if an issue arises that was not handled properly, the City should consider if the training is enough or is ineffective. The City will consider ways to survey or test staff to see if the training is effective.

If not maintained in a separate document, include reviews of training effectiveness:

The City reviews training effectiveness during the preparation of the MS4 Stormwater Management Program Annual Report. More training is provided to staff either on an individual or group basis, depending on the circumstances. Such circumstances include, but are not limited to:

- increased resident complaints on a specific development or CIP project;
- increased resident complaints on issues in neighborhoods, city streets, or streams;
- observations from staff on issues in neighborhoods, city streets, or streams.

4.3.R Using adaptive management, the City is required to review their IDDE Program, at minimum, annually and update implementation procedures and/or BMPs as necessary within the requirements of the MS4 permit. This data will be used to continuously evaluate the effectiveness and implementation of each BMP. Any additional BMPs will be acknowledged in the MS4 Stormwater Management Program Annual Report.

ANNUAL REVIEW OF MCM 3

YEAR REVIEWED	DATE OF REVIEW	REVIEWER(S)	CHANGES MADE AND NOTED
2021			
2022			
2023			
2024			
2025			

List any additional programmatic BMPs and when they were added to the Stormwater Management Program. (Examples of programmatic BMPs include mapping the entire storm sewer system, adopting a standard operating procedure for dry weather screening, etc.)

No additional programmatic BMPs were added during the 2021 reporting period.

MCM 4: Construction Site Stormwater Runoff Control (4.4)

This MCM requires the City of Raymore to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the City's regulated MS4 from construction activities that result in a land disturbance of greater than or equal to one (1) acre. Reduction of stormwater discharges from construction activity disturbing less than one (1) acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one (1) acre or more. The construction site stormwater runoff control program will, at a minimum, include the following:

4.4.A The City is required to have a law, ordinance, and/or other regulatory mechanism to require construction site runoff control BMPs at construction/land disturbance sites greater than or equal to one (1) acre or less than one (1) acre if the construction activity is part of a larger common plat or development or sale that would disturb one (1) acre or more. The mechanism is required to include sanctions which are designed to ensure compliance, to the extent allowable under State or local law.

Attach a copy of, or include a link to, the ordinance or regulatory mechanism. This will include a copy of or link to the ordinance and/or other regulatory mechanism that the City will use to enforce the construction program.

Land Disturbance/Grading Application and Checklist
UCD Chapter 455 Natural Resource Protection

4.4.B The City is required to review pre-construction plans.

The pre-construction plan reviews will, at a minimum:

☒ Evaluate threats to water quality by considering, at minimum, the following factors:
- a. Soil erosion potential;
- b. Site slope;
- c. Project size and type;
- d. Sensitivity or receiving water bodies;
- e. Discharge flow type (pipe or sheet flow);
- f. Location of discharge point in relation to receiving water;
- g. Proximity of the site to receiving water bodies; and
- h. Other factors relevant to the City.

☒ Use a checklist, or other listed criteria, to ensure consistency and completeness (attach a copy of a checklist, if used by plan reviewers).

☒ Include requirements for construction site operators to select, install, implement, and maintain appropriate stormwater control measures. This includes temporary BMPs throughout the life of the land disturbance and permanent BMPs which remain on-site as required by local codes and ordinances.

☒ Consider ways to minimize disturbed areas through actions such as phased construction requirements, temporary seeding or sodding, or erosion mats to exposed areas.

☒ Include requirements for construction site operators to control construction site waste that may cause adverse impacts to water quality. This will, at a minimum, include:
- a. Discarded building materials;
- b. Concrete truck and mortar mix washout;
- c. Chemicals (such as fertilizer, paint, oils, herbicides, pesticides);
- d. Litter; and
- e. Sanitary waste.

4.4.C The City is required to establish authority for site inspections and enforcement of control measures. To the extent allowable by State, Federal, and local law, the City is required to implement procedures for inspecting construction/land disturbance projects.

The construction site runoff control program will, at a minimum:

☒ Identify priority sites for inspection based on nature of the construction activity, topography, disturbed area, and the characteristics of soils and sensitivity of, or proximity to, receiving water.
☒ Construction site inspections will include assessment of compliance with the City's construction site stormwater runoff control ordinance or regulatory mechanism, and other applicable ordinances.
☒ The inspections will evaluate any structure that functions to prevent pollution of stormwater or to remove pollutants from stormwater and use enforcement policies to require BMPs are implemented and effective.
☒ Final inspection, upon completion of the land disturbance and prior to final approval of construction project. Ensure all disturbed areas have been stabilized, that all temporary erosion and sediment control measures are removed.
☒ The inspections conducted by the City will be documented with a checklist. The checklist must include structural BMPs and check on the self-inspection which are conducted by the construction site operator. These checklists may be electronic.

The attached checklist is currently in trial phase for revision.

Plan Review Checklist

4.4.D The construction site runoff control program is required to include an established, escalating enforcement policy that clearly describes the action to be taken for violations. The program will have written procedures to ensure compliance with the City's construction runoff control regulatory mechanism, including the sanctions and enforcement mechanisms the City will use to ensure compliance and procedures for when certain penalties, injunctions, or other measures will be used.

1. The City must have the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance.

2. Enforcement responses to violations must consider the following criteria, at minimum:
   a. Degree and duration of the violation;
   b. Effect the violation has on the receiving water.

3. Enforcement actions will be timely in order to ensure the actions are effective. These procedures and actions must be written and available for City staff for consistency and training purposes.

4. The City must have a minimum of two (2) enforcement actions they are able to use. Possible enforcement actions include, but are not limited to:
   a. Stop Work orders;
   b. Verbal education or educational materials given to the construction site operator;
   c. Written warnings or notices of violation;
   d. Bonding or escrow requirements;

e. Fines/penalties;
F. Denials for previous non-compliance or current non-compliance at other sites.

Attach a copy of, or include a link to, the escalating enforcement policy. Attach a copy of, or include a link to, the applicable ordinance or regulatory mechanism. Include the sanctions and/or enforcement mechanisms. The City must have a minimum of two (2) enforcement actions.

The City has the following ordinances in place as regulatory mechanisms to address enforcement actions:

UDC 480 Enforcement

Penalties and fees associated with written citations are assessed at the discretion of the Court.

Erosion Control Violation Letter

4.4.E The City must require the construction site operator to conduct inspections at minimum:

1. Every fourteen (14) days, when construction is active.
2. Within 72 hours of any storm event, and within 48 hours after any storm event equal to or greater than a 2-year, 24-hour storm has ceased.

Checklists used for these inspections conducted by the construction site operators will either be submitted to the City or the City will verify that these inspections are being conducted by the construction site operator during City inspections.

Attach a copy of, or include a written description of, the inspection requirements for construction site operators.

Specifications_Section 2150 - Erosion and Sediment Control_APWA 021517

How are the checklists used by the construction site operators verified (submitted to the City or verified on-site)?

Checklists are created by the construction site operators in their SWPPP . The inspection reports created by construction site operators are kept onsite and are emailed to the City as a report or notice of completion.

4.4.F The City is required to maintain an inventory of active public and private land disturbance sites, as defined in Section 4.4 of the City's MS4 permit. This may be supplemented with records such as a plan review checklist and email correspondence.

The inventory must contain:

☒ Relevant contact information (e.g., tracking number, name, address, phone, etc.);
☒ Size of the project/area of disturbance; and
☒ Determination if the site is a priority site and how high/low the priority is.

Land Disturbance permits are reviewed and issued by the Engineering and/or Development Services Departments and are kept within the project file. The City is in the process of building a database to more effectively track the process of the permits through all phases from issuance to close-out.

4.4.G The City is required to track their oversight inspections. This may be done by retaining copies of records such as inspection checklists and email correspondence. The City must make these inventories available to the MDNR upon request.

The tracking must contain, at a minimum:

☒ Inspection dates and time;
☒ Inspector name;
☒ Inspector findings; and
☒ Follow up actions and dates, including corrective and enforcement actions.

Explain how oversight inspections are maintained:

Oversight inspections that are performed are collected and maintained in the documents and images section under each permit. These inspections document any deficiencies found and are reported to the permit holder.

4.4.H Existing permittees: Review the Stormwater Management Program including ordinances, permitting procedures, review procedures, inspection procedures, and enforcement procedures to ensure compliance with these requirements. Any changes necessary to be brought into compliance with the MS4 permit will be completed within the first year of permit issuance. The inventory of active sites must be updated as new projects are reviewed and projects are completed. If the permittee needs to develop this inventory, it will be completed within one (1) year of permit issuance.

4.4.J The Stormwater Management Program must include procedures for the City to receive and consider information submitted by the public about land disturbance sites. This may be in combination with Section 4.2.D of the MS4 permit.

4.4.K The City is required to provide, or support access to, construction site runoff control training for City inspectors and plan reviewers at a minimum of once during the permit cycle. The education will be tracked or documented.

MUNICIPAL STAFF TRAINING PROGRAM

STAFF & DEPARTMENT	DATE	TOPIC(S)	TRAINING PROVIDER/METHOD
Engineering Inspectors/Development Services Inspectors	Annually	MCM 3 & 4 Erosion Control	Lorie Crandell Stormwater Specialist Method: In Person

4.4.L The City must provide written procedures outlining the local inspection and enforcement procedures to their inspectors to ensure accuracy among the inspections.

Attach a copy of, or include a written description of, the local inspection and enforcement procedures that the City provides to their inspectors to ensure consistency among the inspectors.

Large Residential & Commercial Developments SOPs
4.1 SOP Large Residential & Comm Checklist
4.1.1 SOP Erosion Control Plan Review
4.2R SOP Erosion Control pre-Construction Inspection Residential
4.2C SOP Erosion Control pre-Construction Inspection Commercial
4.3R SOP Erosion Control Inspection during Construction Residential

4.4.M Using adaptive management, the City is required to review their Construction Site Stormwater Runoff Control Program, at minimum, annually to evaluate the ordinances, review procedures, inspection procedures, enforcement procedures, receipt of public information procedures, and effectiveness of training procedures, as necessary within the requirements of the MS4 permit. Any changes or additional BMPs will be acknowledged in the MS4 Stormwater Management Program Annual Report.

ANNUAL REVIEW OF MCM 4			
Year Reviewed	**Date of review**	**Reviewer(s)**	**Changes made and noted**
2021	November 2021	Lorie Crandell	Revisions made as required by new Comprehensive Version of permit
2022			
2023			
2024			
2025			

The annual review may include, but is not limited to the following:

☒ Evaluating the most common violations, how the violations are handled, and how many are escalated;
☒ If the education program can assist in reducing violations;
☒ Determining if the site plans match the sites when violations arise or if additional items need to be evaluated at plan review;
☒ Assessing public complaints being addressed in a timely manner; and.
☒ Evaluating if the inspections are thorough and consistent across different sites.

List any additional programmatic BMPs and when they were added to the Stormwater Management Program. (Examples of programmatic BMPs include on-site pre-construction visit, adopting a standard operating procedure or enforcement measures, etc.)

The City has compiled and adopted an Adaptive Landscapes Guide as a BMP in conjunction with MCMs 4 and 5.

Adaptive Landscapes Guide

MCM 5: Post-Construction Stormwater Management in New and Redevelopment (4.5)

This MCM requires the City of Raymore to continue or 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 (1) acre, including projects less than one (1) acre that are part of a larger common plan of development or sale, that would disturb one (1) acre or more, and that discharge into the City's regulated MS4. The City's program is required to ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts.

4.5.A The City is required to maintain and utilize an ordinance(s) or other regulatory mechanism(s) to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law for sites equal to or greater than one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The goal of this approach is to arrive at designs that protect sensitive areas, minimize the creation of stormwater pollution, utilize BMPs that effectively remove stormwater pollution, and attempt to maintain pre-development runoff conditions.

The City's program is required to ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts from stormwater, after construction.

If not maintained separately, include a written description of the ordinance or regulatory mechanism for post-construction stormwater management. This will include a copy of, or link to, the ordinance and/or other regulatory mechanism that the City will use to enforce the post-construction program.

UDC 455 Land Disturbance and Erosion Control

UDC 450 Stormwater Management

4.5.B The City is required to continue or develop a strategy to minimize water quality impacts, which includes a combination of structural and/or non-structural controls (BMPs) appropriate for the City.

1. Structural controls include, but are not limited to, extended detention basins, grass swales, bio-retention, permeable surfaces, sand filter basins, stormwater planters, or proprietary BMPs.

The ordinance or regulatory mechanism for structural post-construction controls, or water quality facilities is required to include:

☒ Adoption or development of numeric or technical performance and/or design standards to control post-construction stormwater discharges.
These post-construction stormwater standards are for designing, installing, implementing, and maintaining stormwater control measures which may include, but are not limited to BMPs that: infiltrate, evapo-transpire, harvest, detain, retain, and/or reuse stormwater.

The City must adopt or maintain local stormwater discharge design standards that consider parameters such as: site discharge volume, rate, duration, and frequency for new development and redevelopment sites with the intent to minimize the impact of stormwater runoff on water
quality.

APWA 5600

2. Non-structural controls include, but are not limited to, stream buffers, no mow zones, preservation of open spaces, tree preservation, impervious cover reduction, land use planning, and low impact development.

The ordinance or regulatory mechanism for non-structural post-construction controls is required to include:

☒ Adoption or development of preventative actions that involve management and source controls such as, but not limited to:

☒ Policies and ordinances that provide requirements and standards to direct development to identified areas;
☒ Protection of sensitive areas such as wetlands and riparian areas;
☐ Maintain and/or increase open space (which may include a dedicated funding source);
☒ Maintain requirements for buffer zones along water bodies;
☐ Require minimizing impervious surfaces;
☒ Require minimizing disturbance of soils and vegetation;
☐ Policies or ordinances that encourage infill development in higher density urban areas and areas with existing infrastructure;
☐ Programs which incentivize the use of green infrastructure;
☐ Requirements for minimization of directly connected impervious areas; and
☐ Tree preservation ordinances.
☐ Other _____

APWA 5600

UCD 450 Stormwater Management

UDC Chapter 455 Natural Resource Protection

UDC 455.040 Stream Buffer Protection

4.5.C Pre-construction plan review is required to be completed by the City to assess site characteristics at the beginning of the construction site design phase to ensure adequate planning for stormwater program compliance. The structural or non- structural controls chosen must protect sensitive areas, minimize the creation of stormwater pollution, and effectively reduce stormwater pollution. This can be achieved by reasonably mimicking pre-construction runoff conditions on all affected new development projects or the City may achieve this through a method more appropriate for the community.

☒ The plan review process will use a checklist. This may be part of the same plan review in MCM4. Attach a copy of the checklist.

☒ The plan review process shall evaluate non-structural BMP selection first, such as comprehensive plans, zoning ordinances, buffer strips, and/or maximization/preservation of open space.

***During pre-construction plan review, City staff not only evaluate compliance with the City's ordinances but also consider impacts to water quality*.**

Plan Review Checklist

4.5.D The City is required to have ordinances or similar enforcement mechanisms to ensure adequate long-term operation and maintenance (O&M) of the selected BMPs, including, as appropriate, agreements between the City and other parties such as post- development landowners or regional authorities.

☒ Long-term O&M must be addressed during the plan review and approval process.

If not maintained separately, include a copy of, or a link to, the ordinance or regulatory mechanism to ensure long-term O&M.

UDC 450.090 BMP Surety and Enforcement

4.5.E The City is required to inspect, or require inspection of, each water quality structural and non-structural water post-construction BMP according to the following, at a minimum:

☒ A minimum of one (1) inspection must be conducted during construction and one (1) inspection before the site is finalized to verify water quality facilities are built as designed and any applicable boundaries or practices for non-structural BMPs are being observed. This may be conducted in combination with MCM 4 inspections.
a. The assigned City inspector will have access to the approved plans to ensure proper installation.
☒ A minimum of once in the first three (3) years, after the installation by the City.
☒ Annually by the owner/operator of the post-construction BMP or by the City. If completed by the BMP owner/operator, this inspection report will be submitted to the City for evaluation and review.
☒ The City is required to inspect a minimum of 60% of all water quality post-construction BMPswithin the five (5) year permit cycle. This must include installations with on-going or open enforcement issues.

4.5.F The City must maintain a plan designed to ensure compliance with the City's post-construction water quality regulatory mechanism. This plan must include escalating enforcement mechanisms that the City will use to ensure compliance.

The City must have the authority to initiate a range of enforcement actions to address the variability and severity of non-compliance.

☒ Enforcement responses to violations must consider, at minimum:

☒ Degree and duration of the violation;
☒ Effect the violation has on the receiving water;
☒ Compliance history of the post-construction BMP owner/operator; and
☒ Cooperation of the owner/operator with compliance efforts.

Attach a copy of, or include a written description of the escalating enforcement policy and Mechanisms.

UDC 450.110 Maintenance Enforcement of Stormwater Facilities

4.5.G Enforcement actions are required to be timely in order to ensure the actions are effective. The City is required to begin enforcement actions within thirty (30) days of discovering a violation.

The City is required to maintain a minimum of two (2) possible sanctions. These include, but are not limited to:

☒ Education regarding the BMP and verbal warnings;
☒ Written warnings or notice of violation (this includes email notification);
☒ Property lien; and
☒ Fines.
☒ Other _____

Attach a copy of, or include a written description of, the enforcement actions and response times.

The City first attempts to contact the owner by verbal warning and education coupled with written notice of the warning, including a timeline for remediation. If further action is required, written violations and citations are issued.

UDC 450.110 Maintenance Enforcement of Stormwater Facilities

4.5.I The City is required to track the post-construction BMP inspections. This may be done by retaining copies of records such as an inspection checklist or an email correspondence. The City must make these inventories available to the MDNR upon request.

The tracking must contain, at a minimum:

☒ Inspection dates and times;
☒ Inspector name;
☒ Inspector findings; and
☒ Follow up actions and dates, including corrective and enforcement actions.

Explain how the post-construction BMP inspection tracking is maintained.

Currently, this tracking is done by annual record review or new violations. The City is in the process of acquiring a centralized database to more effectively track information and inspections.

4.5.J Existing permittees: Evaluate the ordinances, permitting procedures, review procedures, inspection procedures, and enforcement procedures to ensure compliance with these requirements and determine if changes are needed. Any changes necessary to be brought into compliance with the MS4 permit must be completed within the first two (2) years of permit issuance. The inventory of water quality facilities must be updated as new facilities are added and projects are completed. If the City needs to develop this inventory, it must be completed within two (2) years of the MS4 permit

issuance.

4.5.K New permittees: Are required to develop the ordinance or regulatory mechanism. Development of this program must be completed within the first five (5) years of the MS4 permit issuance. For new permittees, the inventories of public and private post-construction water quality BMPs must be completed within two (2) years of permit issuance and then updated as new projects are permitted and projects are completed.

4.5.L The City is required to provide appropriate training for City inspectors at minimum once every permit cycle. This may include green infrastructure training or specific operation of proprietary post-construction BMPs. The City will provide overall training to explain the function of both structural and non-structural post-construction water quality BMPs.

POST- CONSTRUCTION TRAINING

Staff/Department	Date	Topic(s)	Training Provider/Method

4.5.M Using adaptive management, the City is required to review their Post-Construction Site Stormwater Management in New Development and Redevelopment Program, at minimum, annually to evaluate effectiveness of the overall program and determine if changes are needed within the requirements of the MS4 permit. Any additional BMPs will be acknowledged in the MS4 Stormwater Management Program Annual Report.

ANNUAL REVIEW OF MCM 5

Year Reviewed	Date of Review	Reviewer(s)	Changes
2021			
2022			
2023			
2024			
2025			

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations (4.6)

This MCM requires the City of Raymore 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. This training is offered in conjunction with MCMs 3 and 4.

4.6.A The City is required to maintain and utilize an employee training program for municipal staff. The training must be given at a minimum annually to all City staff who work with material handling, at City owned or operated vehicle/equipment maintenance areas, storage yards, and material storage facilities.

MUNICIPAL STAFF TRAINING PROGRAM

STAFF	FREQUENCY	TOPIC(S)	TRAINING PROVIDER/ METHOD
New Field Employees	Within the 1st year of hire.	MCM's 3,4,and 6 (IDDE, erosion control, pollution prevention, construction waste, spills, vehicle and equipment washing, herbicides, etc.)	Trainer: Lorie Crandell, Stormwater Quality Specialist Method: In person or video/powerpoint presentation
Public Works Operations and Engineering	Annually	MCM's 3,4,and 6	
Parks Operations	Annually	MCM's 3,4,and 6	

4.6.B The training is required to be used to prevent and reduce stormwater pollution. The training must cover a minimum of the following topics/activities (if applicable):

1. Vehicle and equipment washing;
2. Fluid disposal and spills;
3. Fleet, equipment, and building maintenance;
4. Park and open space maintenance procedures (fertilizer, herbicide, pesticide application);

5. New construction, road maintenance, and land disturbances;
6. Stormwater system maintenance;
7. MS4 operated salt and de-icing operations;
8. Fueling;
9. Solid waste disposal;
10. Street sweeper operations; and
11. Illicit Discharges.

Training is provided annually for Public Works and Parks Department personnel. Copies of training sign-in sheets are available from the Public Works- Engineering Department.

4.6.C The City is required to:

☒ Maintain materials to use in the training program, such as those available from the EPA, the State, or other organizations. Explain.

The City's Stormwater Specialist maintains the City's stormwater training materials from year to year and reviews/modifies training materials on an annual basis.

☒ Unless maintained separately, include written procedures for the training program. Include a description of how this training will coordinate with all other MCMs (such as Illicit Discharge), monitoring, and TMDL implementation, where applicable.

The City's Stormwater Specialist prepares the annual training materials and schedules specific groups of field staff across several departments for training that includes requirements of MCMs 3, 4, and 6. Topics covered during training include erosion control, IDDE, construction waste, good housekeeping, pollution prevention, vehicle maintenance, etc. Training is provided at least once per permit cycle to additional staff in various departments who may encounter illicit discharges and within the first year of employment for new field staff. A summary of the staff and topics covered in the City's stormwater training are included in Section 4.6.A of the City's SWMP.

☒ Unless maintained separately, include a written schedule to offer topic specific training, when appropriate. Such as, swimming pool discharges in the summer, leaf disposal in the fall, proper salt clean-up in and usage in the winter.

4.6.D The City is required to maintain a list of all municipal operations/facilities that are impacted by the City's MS4 permit. This must include a minimum of the following, if owned and/or operated by, and applicable to, the City:

- Maintenance yards;
- Fleet or maintenance shops, including Parks Department;
- Storage yards;
- Parks, golf courses, swimming pools, and splash pads;

• Municipal parking lots;
• Salt/sand storage locations;
• Snow disposal areas; and
• Other locations that are expected to contribute to floatables and/or pollutants.

LIST OF MUNICIPAL FACILITIES IMPACTED BY THE CITY'S MS4 PERMIT

FACILITY	ADDRESS
Operations and Maintenance Facility	1021 S. Madison St., Raymore, MO
Municipal Complex	100 Municipal Circle, Raymore, MO
Animal Control	11023 S. Madison St., Raymore, MO
Centerview Community Event Space	227 Municipal Circle, Raymore, MO
Raymore Activity Center	1011 S. Madison, Raymore, MO

4.6.E The City is required to maintain a list of industrial facilities that the City owns or operates which are subject to MS4 permits for discharges of stormwater associated with industrial activity. The list must include the permit number or a copy of the "No Exposure Exemption Certification", if applicable, for each facility. This includes municipal projects with a land disturbance permit, wastewater facilities, airports, etc.
MS4-permitted facilities not owned or operated by the City are not required to be part of the list; however, the City should be familiar with all such facilities within City limits as they may signify a priority area for the IDDE program.

The City does not have any industrial facilities that are subject to NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge into the City's MS4.

4.6.F The City is required to develop or maintain controls for reducing or eliminating the discharge of floatables and pollutants from municipal facilities listed in Sections 4.6.D and 4.6.E of the SWMP.

Raymore Public Works Storm Water Pollution Prevention Plan

Raymore Municipal Complex SWPP and SOP

Raymore Animal Control SWPPP and SOP

Centerview SWPP and SOP

RAC SWPP and SOP

These controls must include, at a minimum, where applicable:

☒ A list of potential pollutant sources at each facility, such as materials used and stored on-site.
Explain.

☒ A minimum of annual inspections of all municipally owned/operated facilities for stormwater issues. Records will be kept for inspections and follow up. This may be a checklist and may be electronic. Explain.

☒ Use of structural controls/BMPs to reduce or prevent pollutants from entering waters of the state or into another community, where needed. A map with descriptions of these BMPs will be maintained for each facility. Explain.

☒ All paints, solvents, petroleum products, and petroleum waste products (except fuels) under the control of the City will be stored so these materials are not exposed to stormwater. Explain.

☒ Sufficient practices of spill prevention, control, and/or management will be provided to prevent any spill of these pollutants from entering waters of the state. This will include spill kits when liquid product is stored at a facility; and any containment system used to implement this requirement will be constructed of materials compatible with the substances contained and will prevent the containment of groundwater. Explain.

☒ Tracking of rock salt/brine or other de-icer usage. Explain.

The City's Public Works Department tracks all rock salt and brine usage.This is maintained at the City's Maintenance Facility.

☒ Maintaining municipal salt storage area(s) after use of rock salt, at a minimum:
• Sweep and/or shovel spillage in loading area and storage area; and
• Unload salt hoppers or keep under cover when salt is in the hopper. Explain.

Following a snow or ice storm, the City's Public Works Department ensures that all rock salt is shoveled back into the proper storage area. In addition,vehicles carrying rock salt during snow/ice events are emptied and washed at the end of a storm or ice storm. No rock salt is stored in vehicle hoppers at the end of a snow or ice event.

4.6.G The City is required to have procedures for proper disposal of waste removed from City structures and areas of jurisdiction.

This waste will include, at minimum, if applicable to the City:

☒ Street sweeping spoils and washout;
☒ Accumulated sediment;
☒ Dredged material;
☒ Floatables, trash, and litter;
☒ Leaves and other organic matter; and
☒ Other debris.

Explain municipal waste disposal procedures.

The Raymore Public Works Department collects street sweeping spoils along with accumulated soils, debris, trash, and litter from City streets, rights-of-way, and city-owned properties. This material is transported to a city-owned trash receptacle for proper disposal. Waste generated from municipal operations is properly disposed of using a contracted waste disposal company.

The City currently does not own any facilities that require dredging. However, any dredged materials that may be collected during a future CIP project would be required to be properly disposed of by a contractor.

4.6.H The City is required to maintain and utilize the following procedures, at minimum, for the washing of all municipal vehicles and equipment, if applicable:

☒ Use of any soap or detergent will only be where there is connection to sanitary sewer or equivalent treatment;
☒ Any wash or rinse water that contains pollutants such as salt, oils, grease, sediment, grass clippings, lawn chemicals, or pesticides will not be discharged to waters of the state or the City's storm discharge system without appropriate treatment; and
☒ Any washing or rinsing activities will be conducted in an appropriate area so the water is treated. This area(s) will be marked on the map of the facility.

Explain municipal vehicle and equipment washing procedures.

The City requires all city-owned vehicles to be washed at a city-owned car wash bay or at a city-approved commercial car wash. The bay is located inside the Public Works Operations Facility.
The wash bays are connected to the sanitary sewer and have oil-water separators that are cleaned out by a contractor on an as-needed basis.

4.6.I The City is required to maintain written explanation of the controls, procedures, inspection schedules, and explanation of tracking of these controls. Tracking may be done by retaining inspection reports or checklists. Individual Stormwater Pollution Prevention Plans (SWPPPs) or one (1) overarching O&M Manual for all applicable City facilities may be used to comply with this requirement. If a unified document is used, each individual site will be familiar with the document and a copy will be present on each site referenced in the document or available electronically.

☒ Individual SWPPPs
☐ One O&M Manual
☒ Other written explanation of controls, procedures, inspection schedules, and explanation of tracking (inspection reports or checklists).

Explain how municipal facilities maintain written documentation of controls for stormwater management.

The City uses individual SWPPPs to maintain written tracking of the BMPs for each of the municipal facilities listed in Section 4.6.F of this SWMP.

Annually, the City is required to evaluate the results, controls, and inspection procedures to ensure compliance with these requirements and determine if changes are needed. This evaluation may also aid in finding priority areas or pollutants in relation to MCM 3 or adding more education in relation to MCM 1.

MUNICIPAL FACILITY INSPECTIONS

Review Dates	Locations	Issues	Corrections

4.6.J The City is required to maintain procedures to determine if there are impacts to water quality for new flood management projects, if applicable. Any flood management projects must require the protection of water quality in the standards that are used to plan, build, and maintain stormwater infrastructure. Flood management projects are those projects developed or designed to reduce flooding.

Attach a copy, or include a written description of, the procedures to determine if there are impacts to water quality for new flood management projects.

The City does not have any new flood management projects at this time. If future projects are warranted, the City will adhere to the procedures in MCMs 3 and 4 to address water quality on development and CIP projects.

4.6.K Existing permittees: Are required to evaluate the current Stormwater Management Program including training, inspection procedures, and other municipal operation procedures to ensure compliance with these requirements. Any changes necessary to be brought into compliance with the MS4 permit will be completed within one (1) year of permit issuance.

4.6.L New permittees: Are required to develop this program. The Stormwater Management Program will describe the pollution prevention/good housekeeping plan and scheduled implementation. Development of this program will be completed within five (5) years of permit issuance.

4.6.M Using adaptive management, the City is required to review their Municipal Operations Program, at minimum, annually and update implementation procedures as necessary within the requirements of the MS4 permit. Any additional BMPs will be acknowledged in the MS4 Stormwater Management Program Annual Report.

ANNUAL REVIEW OF MCM 6

Year Reviewed	Date of Review	Reviewer(s)	Changes
2021			
2022			
2023			
2024			
2025			

List any additional programmatic BMPs and when they were added to the Stormwater Management Program. (Examples of programmatic BMPs include new training programs, adopting standard operating procedures for equipment cleaning, etc.)

No additional programmatic BMPs were added during the 2021 reporting period.

MONITORING, RECORDKEEPING, AND REPORTING (SECTION 5.0)

The City is required to retain records of all Stormwater Management Program activities, a copy of the MS4 permit, a copy of all ordinances, policies, and formal procedures for all six (6) MCMs, records of all data and monitoring information used to complete the application for the MS4 permit, implementation of any part of the permit, and implementation for any part of the City's Stormwater Management Program for a period of at least three (3) years from the date of the sample, measurement, analysis, report, or application. This period may be extended by official written request by the MDNR at any time. The City is also required to retain the most recent version of their SWMP at a reasonable location accessible to the MDNR, which may be done as a publicly available website.

Monitoring data will include, if applicable, the information below:

• All calibrations and maintenance records of sample or analytical equipment;
• All original strip chart recordings for continuous monitoring instrumentation;
• The date, location, and time of sampling or measurement;
• Name of the individual(s) who performed the sampling or measurements;
• The date(s) analyses were performed;
• Name of the individual(s) who performed the analyses;
• The analytical techniques or methods used; and

• The results of such analyses.

Any monitoring conducted for the purpose of implementation of any part of the City's MS4 permit must be conducted in accordance to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O.

All records required by the City's MS4 permit may be maintained electronically, as long as they are accessible upon request by the MDNR. If a non-electronic version is kept, the City is required to retain the most recent versions of the records and those records will be accessible to the MDNR upon request.

If requested in writing by the public, the City will submit the items required under Part 5 of the MS4 permit, including a copy of the permit, SWMP, or application. The City will submit the items contained in Part 5 of the MS4 permit to the MDNR upon request.

A report to the MDNR on the status of the City's program is due annually on or before February 28th. This report will cover the previous year from January 1st to December 31st and will be submitted on the MDNR approved, MS4 Stormwater Management Program Annual Report form. If approved by the MDNR, the City may submit the MS4 Stormwater Management Program Annual Report using an alternative report format. The City will submit the MS4 Stormwater Management Program Annual Report containing, at a minimum:

• Information regarding progress toward achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable;
• The status of the City's compliance with permit conditions;
• Assessment(s) of the appropriateness of identified BMPs and corresponding measurable goals for each MCM;
• A summary of results of information collected and analyzed during the reporting period, including monitoring data or quantifiable values per the MS4's measurable goals;
• A summary of the TMDL Assumptions and Requirement Attainment Plan (ARAP), if applicable, containing the implementation status of BMPs and measurable goals specific to the TMDL ARAP or progress toward implementing the schedule for implementation of the TMDL ARAP. The summary will also include any changes to BMPs and corresponding measurable goals;
• If the City chooses to utilize integrated planning, the City must provide a summary of the status of the integrated plan; and
• A statement if the City is relying on another entity to satisfy some of the permit obligations. If applicable, the City will supply the name of the entity, the name of the entity's primary contact person, and other relevant contact information.

The MS4 Stormwater Management Program Annual Report must be submitted electronically through the MDNR's Electronic Discharge Monitoring Report (eDMR) Submission System. This is accessible through the Missouri Gateway for Environmental Management (MoGEM) website: https://dnr.mo.gov/mogem/

eDMR SYSTEM ACCESS

Lorie Crandell, Stormwater Quality Specialist	Certifier and Approver
Michael Krass, Director of Public Works	Approver