

**City of Liberty MS4
Stormwater Management Plan (SWMP)**

(Permit #:MOR04C027 / 2021 - 2026)

December 31, 2021

Introduction

The purpose of this SWMP is to meet the requirements of the comprehensive general permit for small MS4's and document the BMP selections made under that permit for the City of Liberty. The City falls under the permit designation of "Group B" as it is a traditional small MS4 that serves a population of over 10,000 but less than 40,000 people. During annual reviews of this document, and the MS4 program as a whole, the City may choose to replace or modify ineffective BMPs with effective BMPs.

MOR04C PART 4. MINIMUM CONTROL MEASURES

4.1 **MCM 1. Public Education and Outreach on Stormwater Impacts**

The City of Liberty has implemented a public education program to distribute educational materials to the community and/or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The public education and outreach program includes the following:

4.1.A Target specific audiences who are likely to have significant stormwater impacts.

The City of Liberty will target residents of their community that are served by the MS4. Additionally, the City will target education and outreach to the Liberty business community. Various subsets of each of these groups will be selected each year based on identified needs.

The target audiences may remain the same for the entire permit cycle or may change if the tracking and adaptive management reviews show a new target may be better for the MS4. Any changes will be stated and explained in the MS4 Stormwater Management Program Report.

4.1.B The City of Liberty will target specific pollutant(s) in their education program. The City has no specific pollutants of concern related to their residents and businesses, but will cover a variety of the most common urban stormwater pollutants within their public outreach and education program. Some example pollutants are listed below in Table II. Each year, the City will determine the best target pollutants for these broad audiences or a subset of each of them.

Table II- Example Pollutants/ sources (not limited to this list)

<ul style="list-style-type: none"> • Grass clippings & leaf litter; • Fertilizer & pesticides; • Litter, trash containment, balloon releases; • Dumping of solid waste; • Illegal disposal of household hazardous waste; • Pet waste; • Failing septic systems; • Swimming pool discharge, including salt water pools; • De-icing/ rock salt usage/ storage; • Oil, grease, fluids from vehicles; • Sediment runoff from construction/land disturbance; • Unauthorized discharge of restaurant waste; • Power washing; • Unauthorized discharge of industrial waste; • Vehicle washing; and • Wash water/ grey water.

4.1.C The City of Liberty will utilize appropriate educational resources to be used as BMPs (materials, events, activities, etc.) in conjunction with the selected pollutants for the selected target audiences. The City may change BMPs during the permit cycle if determined appropriate through tracking and adaptive management reviews show a different BMP may be more effective for the MS4. Any changes will be reflected in the SWMP and explained in the MS4 Stormwater Management Program Report.

A more detailed description of any specific subset of the broader target audiences (residents and businesses) as well as any specific target pollutants addressed to these audiences will be documented in the annual MS4 Stormwater Management Program Report.

1. Using **Table III**, over the permit term the City will implement a minimum of the following, including the tracking and adaptive management processes:

Table III - Outreach and Education BMPs

	BMPs:	Measurable goals (The quantity or frequency required to count as a full BMP)	Tracking & Adaptive Management
1	Information on the City website;	Maintain a webpage with up to date information, & working links. All links shall be checked, and the page will be updated as necessary at minimum annually. Will be maintained the entire year.	The number of hits shall be tracked. The City will use this to see which messages get reactions, and if certain messages may need more education.
2	Social Media posts, social media campaign;	Post a minimum of four (4) times a year, on a minimum of one social media platform. The messages will address ways attendees can minimize or avoid adverse stormwater impacts or practices to improve the quality of stormwater runoff. The messages will be seasonally appropriate. Will be continued for the full year (quarterly).	The number of views, impressions, and other interactions will be tracked. The City will use this to see which messages get reactions, and if certain messages may need more education.
3	Require installation of permanent embossed, or precast inlets with “No Dumping-Drains to Stream” or similar message.	Requirement for all new inlets in the MS4 area.	Number of inlets, the location of the inlets will be tracked. These areas will be noted on MCM #3 dry weather screenings, and illicit discharge investigations as a method to determine if the markings are effective or if areas could benefit from the markings
4	Paid membership in a regional or watershed group (MARC water quality committee)	The organization must focus on stormwater runoff.	The group enacts BMPs on behalf of all members, the City participates to ensure their MS4 has representation, and receives some of the educational BMPs.

4.1.D The City of Liberty will 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.

A more detailed description of any involvement BMPs completed and the metrics associated with them will be documented in the annual MS4 Stormwater Management Program Report.

Table IV Involvement BMPs

BMPs	Measurable goals (The quantity or frequency required to count as a full BMP)	Tracking & Adaptive Management
Stream/lake or Watershed clean-up events; Litter clean-up events such as Missouri Stream Team, Adopt-A-Spot, Adopt-A-Street, Adopt-A-Stream;	To be considered an event, the land area cleaned must be at minimum 2 acres, or 400 yards of stream/ streambank/ watershed, or 2 miles of road side. (These may be combined such as 1 acre of land and 200 yards of stream.)	Track the area or distance cleaned (by acre, yard or lane miles), the amount of waste removed (by tonnage, cubic yard, or Stream Team bag count) and the attendance. Use the waste measurements to determine if there are priority areas for litter entering stormwater, or areas for illegal dumping.
Ongoing yard waste collection	Curbside pickup of yard waste available under the solid waste contract	The solid waste contractor does not track the amount of yard waste collected.
Ongoing household hazardous waste (HHW) collection	Liberty is one of several communities that support both mobile collection stations and permanent collection sites for HHW within the Kansas City metro area. The City will promote this program on their web site and through their other IDDE education.	When residents of KC area drop off at any of the HHW locations (mobile or permanent), the waste volume is tracked by the City of their residency. Liberty will review the quarterly reports of the HHW collected at these sites and report on the amounts collected from their residents.

4.1.E The City of Liberty will create or support the involvement BMP(s) in Section 4.1.D. The support provided for any of the BMPs in Section 4.1.D will be documented in detail in the annual MS4 Stormwater Management Program Report.

4.1.F Using adaptive management as required in parts 4.1.A.3.d and 4.1.B.1.c, the City of Liberty will 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 will 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 City of Liberty has developed and implemented a comprehensive public participation program that provides opportunities for public participation in the development and oversight of the City's Stormwater Program.

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

The public participation program, at a minimum includes the following:

- 4.2.A** The City of Liberty held 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 outline prior to the submission of the renewal application to the Department.
- 4.2.B** As part of the public notice, the required items were posted on their website with a way to submit comments, along with the standard public notice methods for the City. No comments were received during the comment period.
- 4.2.C** The City of Liberty held a public information meeting to provide information on, and describe the contents of, the proposed Stormwater Management Program. This meeting was advertised at least thirty (30) days prior to the public meeting.
1. As part of the notice of public meeting, the City posted the notice of the public information meeting including the date, time and location of the meeting on their web site, along with the standard public notice methods for the MS4. A copy of this notice is included with this plan.
 2. The meeting was held within the service area of the MS4.

Dates of public notice: January 22, 2021

Dates of notice of meeting: January 22, 2021

Date of meeting: February 22, 2021

Virtual City Council Meeting (can be viewed at the following link: https://liberty-mo.granicus.com/MediaPlayer.php?view_id=3&clip_id=488)

- 4.2.D** The City of Liberty has a publicly available method to accept public inquiries, or concerns, and to take information provided by the public about stormwater and stormwater related topics. Citizens can call, email or write a letter to Liberty Public Works with any concerns or questions about stormwater-related topics. They can also comment through the City's "Let Us Know" link on the City web site. Any

inquiries, reports or other information received from the public through the “Let Us Know” link are documented through that tracking system electronically. All calls, emails or letters directed to Public Works are documented in the pertinent spreadsheet (one for MCM #3 and one for MCM #4) maintained by the City Engineer on the server.

- 4.2.E The City of Liberty does not utilize a stormwater management panel or committee. If this changes in the future, the City will provide opportunities for citizen representatives on the panel or committee and the attendance of the meetings will be recorded.
- 4.2.F The City of Liberty has a governing body in the City Council. The City Engineer, who is familiar with the MS4 Stormwater Program, will provide an update to the City Council, at minimum, annually with the status of, or updates on, the Stormwater Management Program, and compliance with the MS4 permit. The documentation of the date the City Council was updated, the method used to update them (typically appearing at one of their regular meetings) and the name of the representative who provided the update will be provided in the annual MS4 Stormwater Management Program Report.
- 4.2.I Using adaptive management, the City of Liberty will review their Public Participation Program, at minimum, annually and update implementation procedures as necessary within the requirements of their permit. This will be used to review how to best reach the public, the effectiveness of the mechanisms, the effectiveness of reaching the public and the City Council and if the community and City government are working together for water quality. Any additional events and/or BMPs will 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)

The City of Liberty has implemented, and enforces 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, at minimum, includes the following:

- 4.3.A A current storm sewer system map that is updated as needed to include features which are added, removed, or changed. This map is electronic (GIS).

This storm sewer map, shows at a minimum:

1. The location of all MS4 outfalls. Completed: This was completed in a previous permit cycle and updated in January 2021 based on an updated definition of an “outfall”.

2. The names and locations of all receiving waters of the state that receive discharges from the MS4 outfalls. Completed: This information has been a part of the GIS base map data for many years.
3. The boundary of the regulated MS4 area. Completed: This information has been a part of the GIS base map data for many years.
4. The map is readily available and used by field staff as needed. Field staff have iPads/phones with access to the City's GIS which includes the location of all stormwater infrastructure.

4.3.B The City of Liberty recorded the sources of information used for the map and tracks:

- A numbering or naming system of all outfalls;
- Dates that the outfall locations were verified/ or last field survey (this is done in the custom phone app developed by City staff);
- For newly added outfalls, the date that it was added to the storm sewer system.

4.3.C The City of Liberty effectively prohibits non-stormwater discharges into the City's storm sewer system and has implemented appropriate enforcement procedures and actions. The City of Liberty passed the illicit discharge detection and elimination ordinance on September 20, 2008. The City Code, Sections 31-57, 31-58 and 31-59 all relate to this minimum control measure. Section 31-57 is related to discharge and connection prohibitions. Section 31-58 is related to the City's ability to suspend access to the MS4 in illicit discharge situations. And Section 31-59 is related to the requirements related to the notification of spills. Copies of these codes can be found on the City's web site and through this municode link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTIITHSTMASY_S31-57DIPR

Illicit discharge enforcement procedures and actions are detailed in the City's IDDE Enforcement Response Plan (ERP) which can be viewed at the following link:

<https://mo-liberty3.civicplus.com/DocumentCenter/View/26390>

4.3.D A dry weather field screening strategy has been developed for the City of Liberty.

1. The City of Liberty conducts outfall field assessments. The screening is conducted during dry weather conditions (a minimum of 72 hours after the last precipitation event) to check for the presence of a discharge. At a minimum, 60% of all outfalls will be screened during the permit cycle. Outfalls in priority areas, as determined under Section 4.3.H, will be screened annually. The number of outfalls screened each year (and percentage that this represents of the total number of outfalls) as well as how many of these outfalls are in "priority areas" will be provided in the annual MS4 Stormwater Management Program Report.
2. Dry weather screening is completed utilizing a checklist in a custom app built by City staff to ensure a complete inspection of each outfall, enhance consistency, and to track the field screening. The app attaches the inspection and investigation reports/photos to the outfall or stormwater structure/pipe they are related to within the GIS. When discharge is present, the checklist notes the following general observations and physical characteristics at a minimum:

- 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 of Liberty maintains diagnostic monitoring procedures to detect and investigate unknown non-stormwater flows as part of the dry weather screening program.

4.3.F The City of Liberty maintains 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 will be traced following the procedure below:

1. Utilizing the stormwater system map (within GIS), inspect the next structure upstream of the outfall to determine if the discharge is somewhere in the last enclosed segment.
2. Continue upstream as long as the discharge is present within the structures until you isolate where the discharge is entering the system.
3. While tracing within the system, look for possible sources of the discharge such as active construction/remodeling sites, sprinkler systems running (or obviously run recently), locations of sanitary sewers in the area, etc. If a source can be identified, note it on the screening form. If it is anything other than sprinkler water or air conditioning condensate, proceed with enforcement actions applicable to the type of source.
4. If the discharge appears to be potable water or wastewater in nature, contact the Utilities Department Maintenance Supervisor to assist with the investigation to determine if there is a sewage leak or if it is a possible potable water leak. CCTV inspection of sanitary and storm sewer lines may be utilized. Confined space entry should only be used by properly trained personnel and only when necessary.

Once the source of an illicit discharge or connection has been located and verified, the source shall be removed through the enforcement procedures listed below.

4.3.G The City of Liberty maintains procedures for removing the source of the discharge. After locating the source, the pollutant and source will be removed.

The exact procedure will depend on the source and the circumstances, but generally the City staff will follow the procedure below:

1. If the illicit discharge is identified as being from a construction site that does not fall under the land disturbance permitting requirements, notify the Chief Building Official that the site has been identified as a possible source of illicit discharge and even though it is not required to have a land disturbance permit, the builder and property owner need to be notified that cleanup may be needed and further discharges will not be allowed. This includes improper handling of waste from remodeling projects that might not include land disturbance activities.
2. If the illicit discharge is identified as being from a construction site that does fall under the land disturbance permitting requirements, notify the Chief Building Official and/or the Public Works

Inspector that there is a potential violation of the land disturbance permit and that a compliance inspection will need to be completed. If a violation is verified, follow the enforcement actions outlined within the ordinance.

3. If the illicit discharge is identified as sewage from a public sanitary sewer, notify the Utilities Department Maintenance Supervisor so that a repair can be made.
4. If the illicit discharge is identified as potable water that is likely from a water leak, notify the Utilities Department Maintenance Supervisor and work to address with them or the responsible property owner.
5. If the illicit discharge can be isolated to an illicit connection, notify the City Engineer to notify the property owner that an illicit connection is in place and needs to be removed pursuant to the ordinance or it will be deemed a nuisance and the abatement procedures will begin accordingly.
6. If the source of the illicit discharge can be determined and a responsible party identified, then notify the City Engineer to notify the property owner that the illicit discharge has taken place and needs to be cleaned up or it will be deemed a nuisance and the abatement procedures will begin accordingly.
7. If the source of the illicit discharge cannot be determined and/or a responsible party identified, then notify the Street Maintenance Supervisor to issue a work order to have City staff clean up the discharge to the extent practicable. If the source appears to be broader (such as yard chemical runoff), consider targeting an educational campaign to the subwatershed properties.
8. If the illicit discharge cannot be cleaned up by City staff, one of the following environmental cleaning companies will be called in to perform the cleanup:

Safety Kleen: 1-888-375-5336

Eagle Services Corp: 816-728-4855

Heritage Environmental Services: 816-453-4321

4.3.H In order to prevent further illicit discharge, the City of Liberty will identify priority areas for more regular dry weather field screening. Annually, the City will evaluate this priority area list and/or map and update as necessary to reflect changing priorities. The areas identified as “priority” and why they were designated as such will be documented in the annual MS4 Stormwater Management Program Report.

Examples of the types of areas that might be consider “priority” for dry weather field screening are:

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

4.3.I The City of Liberty maintains written procedures for implementing the IDDE Program, including those components described within this section, to ensure program continuity and consistency.

4.3.J The City of Liberty will conduct investigations in response to field screening discoveries, spills, or in response to complaints from the public, municipal staff, or adjacent MS4s. The City will:

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 MS4 Operator's municipal storm sewer system, the City will notify the other MS4's Operator within 24 hours of discovery or as soon as practicable.

Adjacent MS4	Contact person(s)	Email
City of Kansas City, MO	Jing Tao Tom Kimes	Jing.Tao@kcmo.org Tom.Kimes@kcmo.org
Pleasant Valley	Chris Cronk	ccronk@pleasantvalleymo.org
Claycomo	Jamie Wright Thomas Lehman/Mike McGuire	villageclerk@claycomo.org publicworks@claycomo.org

- 4.3.K** The City of Liberty has procedures for appropriate enforcement, this may include fines, the ability to collect cleanup and abatement costs, and actions to ensure that the City's illicit discharge ordinance is being implemented. These are detailed in the Enforcement Response Plan (ERP) which can be viewed at the following link:

<https://mo-liberty3.civicplus.com/DocumentCenter/View/26390>

- 4.3.L** The City of Liberty maintains a centralized system, to track dry weather field screenings, spills, incidents, and investigations. These are kept in the custom phone app developed by City staff that is linked to the GIS system. Inspection and investigation reports/photos are linked to the outfall locations or stormwater inlet/pipe locations.
- 4.3.M** The City of Liberty informs public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, in conjunction with part 4.1 and part 4.6 of their permit (MCM #1 and MCM #6). Liberty Public Works staff are trained on illicit discharge detection and elimination as well as proper waste management through their annual training. Businesses and the general public are informed about the hazards of illicit discharges and improper disposal of wastes through the public education mechanisms discussed under MCM #1.
- 4.3.Q** The City of Liberty maintains 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. Sign-In sheets with the names and department of the attendees, the topics covered, and the training provider or other method of training will be kept in the City's electronic filing system and made available to MDNR upon request. A summary of the training will be provided in the annual Stormwater Management Program Report.

Reviews of the training effectiveness will be considered after municipal site inspections or after an illicit discharge 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 will 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. The outcomes of these reviews will be included in the annual Stormwater Management Program Report.

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

Annual review of MCM 3			
Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021			
2022			
2023			
2024			
2025			

4.4 **MCM 4. Construction Site Stormwater Runoff Control**

The City of Liberty has developed, implemented, and enforces a program to reduce pollutants in any stormwater runoff to their MS4 from construction activities that result in land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre is included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

- 4.4.A** The City of Liberty has an ordinance to require construction site runoff 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 common plan or development or sale that would disturb one acre or more. The ordinance includes sanctions which are designed to ensure compliance, to the extent allowable under State and local law.

The City of Liberty passed amendments to Chapter 31, Article VI, of the City Code on September 20, 2008. These amendments clarified that the land disturbance permitting requirements specifically relate to developments and redevelopments that disturb greater than one acre (previously it referred to “major developments”) and further included sites disturbing less, but that were part of a greater plan or sale. It also added specific requirements for Stormwater Pollution Prevention Plans (SWPPPs), notification of the City staff at various stages of construction and an enforcement procedure. The code also referenced the design standards. The ordinance can be viewed at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTVIPLGRSEERCO

- 4.4.B** The City of Liberty reviews pre-construction plans.

The reviews include:

- Evaluate threats to water quality
 - a) Soil erosion potential;
 - b) Site slope;
 - c) Project size and type;
 - d) Sensitivity of receiving waterbodies;
 - 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 waterbodies; and
 - h) Other factors relevant to the MS4 service area.

- ☒ A plan review checklist is used to ensure consistency and completeness (can be viewed at the following link: <https://www.libertymissouri.gov/DocumentCenter/View/30642/Plan-Review-and-Permit-Issue-Checklist>)
- ☒ 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.
- ☒ Consideration of ways to minimize disturbed areas through actions such as, phased construction requirements, temporary seeding or sodding, or erosion mats to exposed areas.
- ☒ Requirements for construction site operators to control construction-site waste that may cause adverse impacts to water quality. (Trash, concrete wash-out, etc.). Section 31-96 of the City Code requires a Stormwater Pollution Prevention Plan that in addition to addressing erosion and sediment control, must “..address other wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.” This section can be viewed at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTVIPLGRSEERCO_S31-96COSIRUCO

- 4.4.C** The City of Liberty has established authority for site inspections and enforcement of control measures. To the extent allowable by state, federal, and local law, the City has implemented procedures for inspecting construction/land disturbance projects.

The construction site runoff control program:

- ☒ Sites are not prioritized for inspection. Sufficient staff exists for regular oversight inspection of ALL active constructions sites that fall under the applicability of the construction site runoff control ordinances.
- ☒ Construction site inspections assess compliance with the construction site storm water runoff control ordinance, and other applicable ordinances.
- ☒ The inspections evaluate any structure that functions to prevent pollution of stormwater or to remove pollutants from stormwater and use enforcement polices to require BMPs are implemented and effective.
- ☒ Final inspection, upon completion of the land disturbance and prior to final approval of construction project ensures all disturbed areas have been stabilized and that all temporary erosion and sediment control measures are removed.
- ☒ The oversight inspections conducted by the City staff will be documented in SmartGov software which is in the process of being implementation in 2022. Currently, inspectors periodically do spot checks on sites or inspect sites if issues arise on the operator inspection reports. They follow up with the operator to correct the issues, and may document in project field books, by email, or notes added to the project file. However, documentation has not been consistent in the past, hence the SmartGov implementation.
- ☒ Include a copy of or a link to the checklist.
<https://www.libertymissouri.gov/DocumentCenter/View/26398/Erosion-Control-Report-Form>

- 4.4.D** The construction site runoff control program includes an established, escalating enforcement policy that clearly describes the action to be taken for violations.

The City has multiple sanctions/enforcement mechanisms at its disposal for enforcing the construction site runoff control ordinances. These include education, verbal and written warnings, stop work orders, permit suspension, declaration of nuisance/nuisance abatement and fines. Section 31-98 of the City

Code specifically addresses the escalating enforcement policies for erosion and sediment control and can be viewed at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTVIPLGRSEERCO_S31-98ENCOSIRUCO

Also, the ability for a fine to be levied on any kind of violation of the stormwater ordinance can be found in Section 31-141 which can be viewed at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTXPE_S31-141PEVICT

- 4.4.E** The City of Liberty requires the construction site operator to conduct inspections at minimum weekly and after each ¼” rainfall event. Operators can utilize their own inspection checklist (typical) or a standard inspection checklist provided by the City at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/26398/Erosion-Control-Report-Form>

Checklists used for these inspections conducted by construction site operators are submitted to the City. Public Works inspectors review these submittals and regularly verify them on-site (typically weekly with at least a “drive by”).

- 4.4.F** The City of Liberty maintains an inventory of active public and private land disturbance sites, as defined in Section 4.4 of their MS4 permit. This is supplemented with records such as a plan review documentation and email correspondence. This is done within the permit tracking software and a list of active sites is available to MDNR upon request.

The inventory contains:

- Relevant contact information for each project (e.g., tracking number, name, address, phone, etc.);
- Size of the project/ area of disturbance;

- 4.4.G** The City of Liberty tracks their oversight inspections. These inspections will be documented in SmartGov software which is in the process of implementation in 2022. Currently, inspectors periodically do spot checks on sites or inspect sites if issues arise on the operator inspection reports. They follow up with the operator to correct the issues, and may document in project field books, by email, or notes added to project file. However, documentation has not been consistent in the past, hence the SmartGov implementation. The City of Liberty will make these inspection records available to MDNR upon request.

The tracking contains at a minimum:

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

- 4.4.H** The City of Liberty will review the Stormwater Management Program including ordinances, permitting procedures, review procedures, inspection procedures and enforcement procedures to ensure compliance with the MS4 permit requirements. Any changes necessary to be in compliance with this permit will be completed within the first year following this permit issuance.

The inventory of active site permits will be updated as new projects are reviewed and projects are completed.

4.4.I N/A

4.4.J The Stormwater Management Program includes procedures for the City to receive and consider information submitted by the public about land disturbance sites. This is done in combination with Section 4.2.D of this plan. Citizens can call, email or write a letter to Liberty Public Works with any concerns or questions about land disturbance sites. They can also comment through the City’s “Let Us Know” link on the web site. Any inquiries, reports or other information received from the public through the “Let Us Know” link are documented in that tracking system. Any phone calls, emails or letters received at Public Works are documented by the City Engineer in a MCM #4 spreadsheet in the electronic filing system.

4.4.K The City of Liberty provides, or supports access to, construction site runoff control training for City inspectors and plan reviewers at minimum once during the permit cycle. This education will be tracked or documented. Sign-In sheets with the names and department of the attendees, the topics covered, and the training provider or other method of training will be kept in the City’s electronic filing system and made available to MDNR upon request. A summary of the training will be provided in the annual Stormwater Management Program Report.

4.4.L The City of Liberty provides inspectors with written procedures outlining the inspection and enforcement procedures to their inspectors to ensure consistency among the inspections. This will be further reinforced as the Smartgov inspection documentation is implemented in 2022. These procedures will be reviewed during training provided by the City Engineer or Stormwater Consultant. The City’s ordinances outline the procedures for enforcing the ordinances as it relates to construction site runoff.

4.4.M Using adaptive management, the City of Liberty will review, at minimum annually, their Construction Site Stormwater Runoff Control Program and evaluate the ordinances, review procedures, inspection procedures, enforcement procedures, receipt of public information procedures, and effectiveness of training procedures to ensure compliance with these requirements and determine if changes are needed.

Annual review of MCM 4			
Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021			
2022			
2023			
2024			
2025			

This annual review will include but is not limited to the following.

- Evaluating the most common violations, how the violations are handled, 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 thorough and consistent across different sites.

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

The City of Liberty has developed, implemented, and enforces 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, including projects less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more and that discharge into the regulated MS4. The program ensures that controls are in place that have been designed and implemented to prevent or minimize water quality impacts

4.5.A The City of Liberty maintains and utilizes ordinances 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 acre including projects less than one acre that are part of a larger common plan of development or sale. These are outlined in more detail in Section 4.5.B below.

4.5.B The City of Liberty has developed a strategy to minimize water quality impacts. This includes a combination of structural and/or non-structural controls (BMPs) appropriate for their community.

1. The ordinances related to structural post-construction controls, or water quality facilities, include 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 include, but are not limited to BMPs that; infiltrate, evapo-transpire, harvest, detain, retain, and/or reuse stormwater. The design standards 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. Structural controls include but are not limited to; extended detention basins, grass swales, bio-retention, permeable surfaces, sand filter basins, stormwater planters, proprietary BMPs.

- Detention Requirements and Design Standards

The City of Liberty passed an update to the Unified Development Ordinance (UDO) on February 9, 2009. The revisions in Section 30-97.9 outline the requirements for development and design standards related to stormwater management. The section highlights the requirements for adherence to the adopted stormwater management ordinance (Chapter 31), on-site detention and retention, and a post construction management plan. In addition, the City adopted the KC APWA Section 5600 Stormwater Design Criteria and KC APWA/MARC Manual of Best Management Practices for Stormwater Quality documents as part of the City's design criteria in May 2009.

Section 30-97.9:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEST_S30-97.9DEDESTSTMA

KC APWA 5600: <http://www.libertymissouri.gov/DocumentCenter/View/1134>

KC-APWA Section 5600:

<http://kcmetro.apwa.net/content/chapters/kcmetro.apwa.net/file/Specifications/APWA5600.pdf>

MARC BMP Manual:

http://kcmetro.apwa.net/content/chapters/kcmetro.apwa.net/file/Specifications/BMPManual_Oct2012.pdf

- *Unified Development Ordinance (UDO)*

The City of Liberty passed an update to the UDO 2/9/09 in which modifications were incorporated in the UDO to address stormwater management. In particular, Section 30-97.9 outlines the requirements for development and design standards related to stormwater management and Section 30-97.3 outlines requirements for treatment of stormwater from parking areas. An increase to required open space was also incorporated in the revision.

Section 30-97.9 link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEST_S30-97.9DEDESTSTMA

Section 30-97.3 link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEST_S30-97.3DEDESTPALO

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(s) or regulatory mechanism(s) for non-structural Post-Construction controls, shall include:

- *Stream Buffer Requirements*

The City of Liberty passed an update to the UDO on February 9, 2009 and updated the stream buffer requirements on August 14, 2017. The revisions highlighted the use of stream buffers as a filtration, infiltration and stabilization Best Management Practice (BMP). It clarified where the buffer is measured from (Ordinary High Water mark). It also provided guidance for protection and re-establishment of native vegetation to the maximum extent practicable when riparian areas could not be avoided (ie. road/utility crossings, etc.). The applicable part of the code can be found at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEST_S30-98.3RIEDBUZO

- *Open Space Requirements*

The City of Liberty passed an update to the UDO 2/9/09 modified the required open space in a development to 20% from the previous 15%.

Section 30-97.6: Development and design standards, open space

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEDEST_S30-97.6DEDESTOPSP

- Wetland Protection

When the UDO was updated in February 2009, no modifications related to wetland protection were deemed necessary. The design principles for the Conservation Subdivision (see below) call for the protection of significant natural features (including wetlands) wherever possible. The overall site development standards (Section 30-97.4) also provide for possible tree credits for wetland protection/perseveration.

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEDEST_S30-97.4DEDESTLA

Additionally, the streamside and riparian buffer zone requirements (see above) provide a de facto wetland protection as many wetlands are located near stream corridors. The City cooperates with the Army Corps of Engineers regulation of jurisdictional wetlands.

The site plan requirements set forth in the APWA 5600 plan requirements standards requires the identification of wetlands on any proposed development plans.

Section 5609.7 (must show man-made and natural topographical features which would include wetlands):

<http://www.libertymissouri.gov/DocumentCenter/View/1134>

- Conservation Subdivision

The City uses the Conservation Subdivision as a mechanism to allow flexibility in design for better stormwater quality and quantity management.

Section 30-48: District RC, Rural Conservation District

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTVIIZODI_S30-48DIRCRUCORED

- Tree Replacement/Preservation Requirements

The City requires the replacement and/or preservation of trees on site development projects. These requirements can be viewed at the following link:

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH30UNDEOR_ARTXVISIDEDEST_S30-97.4DEDESTLA

4.5.C Pre-construction plan review is conducted 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 are intended to protect sensitive areas, minimize the creation of stormwater pollution, and effectively reduce stormwater pollution. This is achieved by reasonably mimicking pre-construction runoff conditions on all affected new development projects. The

plan review process uses a checklist. This is the same checklist utilized in the plan review for MCM #4. The plan review process evaluates the usage of both non-structural and structural BMPs. The checklist can be found at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/30642/Plan-Review-and-Permit-Issue-Checklist>

- 4.5.D** The City of Liberty has ordinances to ensure adequate long-term operation and maintenance (O&M) of the selected BMPs, including agreements between the City and other parties such as post-development landowners. The City of Liberty passed revisions to Chapter 31 of the City Code on 9/20/08. These revisions included specific requirements for owners of BMP's related to ongoing operation and maintenance. An enforcement response plan is also outlined in this section. These requirements can be found in Section 31-56(b) of the City Code.

https://library.municode.com/mo/liberty/codes/code_of_ordinances?nodeId=PTIITHCO_CH31STMA_ARTIITHSTMASY_S31-56PUPRREUNSTMASY

Additionally, the City requires the owner of any development that utilizes Best Management Practices to execute a "Covenant to Maintain Stormwater Management Systems". This document is recorded at the Clay County Courthouse and runs with the land. It outlines the inspection and maintenance responsibilities of the owner and outlines the consequences of failing to maintain the stormwater management systems. The template for this covenant can be viewed at the following link:

<http://libertymissouri.gov/DocumentCenter/View/24664>

- 4.5.E** The City of Liberty will inspect each water quality structural and non-structural water post-construction BMP according to the following at minimum:

- A minimum of one (1) inspection will 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. The City inspectors have access to the approved plans to ensure proper installation (they are given paper copies of the plans to take to the field).
- A minimum of once in the first three years after the installation by City staff.
- Annually by the owner or operator of the post-construction BMP as outlined in the BMP Maintenance Agreement. This inspection report will be submitted to the City for evaluation and review.
- The City will inspect a minimum of 60% of all water quality post-construction BMPs within the five year permit cycle. This will include installations with ongoing or open enforcement issues.

Further details regarding the types of things reviewed during post-construction BMP inspection can be reviewed at the following link:

<https://mo-liberty3.civicplus.com/DocumentCenter/View/26394/Inspection-Plan-for-Post-Construction-BMPs-3-7-2018?bidId=>

- 4.5.F** The City of Liberty maintains a plan designed to ensure compliance with the MS4's post-construction water quality ordinance mechanism. This plan includes escalating enforcement mechanisms the City will use to ensure compliance.

The City of Liberty has the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance. During construction, the enforcement actions follow those listed in Section 4.4.D. After construction is completed, the post-construction BMPs are regularly inspected to

verify that they are being properly maintained and are functioning as designed. If violations are found, the responsible parties listed in the maintenance covenant are notified. Depending on the degree and duration of the violation, the effect of the violation on the receiving water, the compliance history of the owner/operator and the cooperation of the owner/operator, Public Works inspectors will determine the level of enforcement required in consult with the City Engineer.

- 4.5.G** Enforcement actions will be timely in order to ensure the actions are effective. City staff will begin enforcement actions within thirty (30) days of discovering a violation. Minor violations such as the need to have a facility mowed, litter or sediment removed will typically be given 30 days to complete the maintenance required. More significant maintenance issues (clogged or broken outlet structures, varmint hole damage, erosion damage) may be given longer time frames based on the type of work needed and weather dependence.

The City maintains the following possible sanctions for enforcement of the requirements on long-term stormwater BMPs:

1. Education regarding the BMP and verbal warnings;
2. Written warnings or notice of violation (this includes email notification);
3. Property lien through nuisance declaration/abatement; and
4. Fines.

- 4.5.H** The City of Liberty maintains an inventory tracking the water quality post-construction BMPs. This inventory is maintained within the City's GIS system and is updated as new BMPs are constructed.

A map of post-construction BMP facilities was developed in the previous permit cycle. This map will be updated by December 31, 2022. Additionally, the inventory database will be reviewed to ensure the most complete and accurate information about each BMP is available.

<https://mo-liberty3.civicplus.com/DocumentCenter/View/26394/Inspection-Plan-for-Post-Construction-BMPs-3-7-2018?bidId=>

The inventory contains:

- Relevant contact information for each project (e.g., tracking number, name, address, phone, etc.);
- The type of post-construction BMP;
- Applicable operations and maintenance documents;
- Date the City Council acceptance of the stormwater maintenance covenant; and,
- If the water quality facility is owned or operated by the City, the tracking will also include any maintenance, such as sediment clean-out or replanting.

- 4.5.I** The City of Liberty also tracks the post-construction BMP inspections. The inspection records are primarily stored within the custom phone app and may be supplemented with written or email correspondence. The City will make these inventories available to the Department upon request.

The tracking contains at a minimum:

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

- 4.5.J** The City will evaluate the ordinances, permitting procedures, review procedures, inspection procedures and enforcement procedures to ensure compliance with the permit requirements and determine if

changes are needed. Any changes necessary to be in compliance with the MS4 permit will be completed within the first two (2) years of permit issuance.

The inventory of water quality facilities is updated as new facilities are added and projects are completed.

4.5.K N/A

4.5.L The City of Liberty will provide appropriate training for MS4 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. Sign-In sheets with the names and department of the attendees, the topics covered, and the training provider or other method of training will be kept in the City's electronic filing system and made available to MDNR upon request.

4.5.M Using adaptive management, the City of Liberty will review, at minimum annually, their Post-Construction Site Stormwater Management in New Development and Redevelopment Program and evaluate effectiveness of the overall program and determine if changes are needed.

Annual review of MCM 4			
Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted above?
2021			
2022			
2023			
2024			
2025			

This annual review may include but is not limited to the following.

- Reviewing the number and types of developments;
- How many BMPs were installed/inspected;
- The amount of watershed area being treated;
- The types of violations found and how frequently; and
- Evaluating how education could improve the effectiveness of the program.

4.6. MCM 6. Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Liberty has developed and implemented an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

4.6.A The City maintains and utilizes an employee training program for MS4 municipal operations staff. The training will be given, at a minimum, annually to all MS4 staff who work with material handling, at MS4 owned or operated vehicle/equipment maintenance areas, storage yards, and material storage facilities. This may be broken up into staff units, or by applicable topics. Sign-In sheets with the names and department of the attendees, the topics covered, and the training provider or other method of training will be kept in the City's electronic filing system and made available to MDNR upon request.

4.6.B The training will be used to prevent and reduce stormwater pollution. The training will cover a minimum of the following topics/ activities:

1. Vehicle and equipment washing
2. Fluid disposal and spills
3. Fleet, equipment, and building maintenance
4. Park and open space maintenance procedures (including 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
11. Illicit discharges

The topics covered each year and the number of staff trained in each department will be documented in the annual report.

4.6.C The City of Liberty will:

The City of Liberty has a policy and procedure for employee training. A copy of this document can be found at the following link:

<https://mo-liberty3.civicplus.com/DocumentCenter/View/26389>

It outlines how employees will receive initial training, ongoing public education, training related to specific standard operating procedures, and training on specialized tasks (such as inspection and enforcement for selected staff).

The annual report will contain a summary of training received by City employees each year. Copies of Sign-In sheets with the names and department of the attendees, the topics covered, and the training provider or other method of training will be kept in the City's electronic filing system and made available to MDNR upon request.

The City maintains materials to use in the training program. Primarily these are the Good Housekeeping Standard Operating Procedures (SOPs) which can be viewed at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/30644/City-SWPPP-SOPs-Combined---21>

Also, the City's stormwater consultant prepared a Powerpoint slide presentation that summarizes these SOPs for use by staff in presenting the training internally. Other educational materials from the EPA, MDNR, MARC and other organizations will be utilized as needed.

The training for employees covers the various sources of pollutants that their municipal operations can potentially discharge. The training also discusses the staff's role in illicit discharge detection and elimination (crossing over into MCM #3). It also covers construction site runoff control from City projects (crossing over into MCM #4). All applicable training topics are covered once annually. They are not typically broken up seasonally.

4.6.D The City of Liberty will maintain a list of all municipal operations/facilities that are impacted by this operation and maintenance program.

FACILITY	ADDRESS
Street Maintenance	400 Suddarth
Parks Maintenance	359 S. Terrace Ave.
Fountain Bluff Sports Complex	2200 Old 210 Hwy
Utilities Maintenance	2800 Riverview Road

- 4.6.E** The City of Liberty maintains a list of industrial facilities the City owns or operates which are subject to NPDES permits for discharges of stormwater associated with industrial activity. The list includes the permit number for each facility.

NPDES permitted facilities not owned or operated by the permittee are not required to be part of the list, however the City will be familiar with all such facilities in their MS4 service area as they may signify a priority area for the IDDE program.

FACILITY	PERMIT NUMBER
Liberty Wastewater Treatment Facility	#MO-0137111

- 4.6.F** The City of Liberty maintains controls for reducing or eliminating the discharge of floatables and pollutants from municipal facilities listed in Section 4.6.D and 4.6.E. City staff follow Standard Operating Procedures which can be viewed at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/30644/City-SWPPP-SOPs-Combined---21>

The SOPs that include information about the proper handling of floatables and other pollutants from municipal facilities include:

- *Streets, Roads, Highways and Parking Lots:*

Street Sweeping SOP

Salt/Sand Storage and Application SOP

Metrics related to these municipal operations will be tracked and reported on annually. Street sweeping will be tracked by the number of lane miles swept each year. Salt/brine and any other deicer usage will be traced based on the amount purchased each year.

- *Maintenance and Storage Yards/Shops & Waste Transfer Stations:*

Good Housekeeping (General SOP)

Building Maintenance SOP

Vehicle/Equipment Storage SOP

Vehicle/Equipment Washing SOP

Salt/Sand Storage and Application SOP

Weed and Pest Control SOP

Mowing and Irrigation SOP

- Inspection and Maintenance of the MS4:
Catch Basin/Storm Drain System/Outfall Repair SOP
Catch Basin/Inlet Cleaning SOP
Vactor Truck Waste Handling/Storage SOP
Erosion and Sediment Control SOP
Illicit Discharge Detection and Elimination SOP
- Paints, Solvents, Petroleum Products and Petroleum Waste Products:
Painting SOP
Parts Cleaning and Storage SOP
Petroleum and Chemical Handling, Storage and Disposal SOP
Fueling SOP
- Spill Prevention, Control and Management:
Spill Prevention and Control SOP

Additionally, each municipal maintenance facility has an individual SWPPP that discusses the pollutant sources at each facility such as materials used and stored on-site. Any structural controls that are utilized at each facility to reduce or prevent pollutants from entering waters of the state are also listed in the SWPPPs. Each SWPPP also has a map of these BMPs. The locations of spill kits are also listed in the SWPPPs. Any containment systems are constructed of materials compatible with the substances contained and are designed to prevent the contamination of groundwater. These containment systems are outlined in the individual SWPPPs. Municipal maintenance facilities are inspected annually for stormwater issues as discussed in Section 4.6.I.

- 4.6.G** The City of Liberty has standard operating procedures for proper disposal of waste removed from the MS4 structures and areas of jurisdiction which can be viewed at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/30644/City-SWPPP-SOPs-Combined---21>

The SOPs that include information about the proper handling of wastes include: Garbage Handling/Storage and Vactor Truck Waste Handling/Storage SOPs.

- 4.6.H** The City of Liberty maintains and utilizes standard operating procedures for the washing of all municipal vehicles and equipment. The SOPs can be viewed at the following link:

<https://www.libertymissouri.gov/DocumentCenter/View/30644/City-SWPPP-SOPs-Combined---21>

Generally speaking, the vehicle/equipment washing SOP calls for the washing of vehicles either at commercial car wash facilities or within the wash bays located at both the Street Maintenance facility or the Utilities Maintenance Facility. This assures that the use of soaps/detergents will only be used where there is a connection to the sanitary sewer and that wash/rinse waters that contain pollutants such as salt, oils, grease, sediment, grass clippings, lawn chemicals, or pesticides will not be discharged to waters of the state. The wash bays are indicated on the map of the facilities.

- 4.6.I** The City of Liberty maintains written explanation of the controls, procedures, inspection schedules, and explanation of tracking of these controls. Tracking will be done by retaining inspection reports or checklists.

Individual Stormwater Pollution Prevention Plans (SWPPP) will be developed for all applicable MS4

facilities and are supplemented with Standard Operating Procedures for many of the most common municipal activities. The Street Maintenance facility already has a SWPPP developed during a previous permit cycle. The Parks Maintenance facility had a SWPPP, but a new facility was recently constructed and the operations moved which will require a new site-specific SWPPP to be developed in 2022. The Utilities maintenance facility has not had a site-specific SWPPP and this document will be developed in 2022.

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

Municipal Facilities listed in Section 4.6.D will be inspected at least annually. Municipal Facility Inspection Forms with the date of the review, location inspected, discussion of any issues found, discussion of any changes made or proposed, and discussion of any follow up needed will be kept in the City's electronic filing system and made available to MDNR upon request.

- 4.6.J** The City of Liberty maintains procedures to determine if there are impacts to water quality for new flood management projects, if applicable. Any flood management projects will consider the protection of water quality in the standards that are used to plan, design, build, and maintain stormwater infrastructure.

Flood management projects are those projects developed or designed to reduce flooding.

New flood management projects completed by private developers must follow the MARC BMP Manual which requires the treatment of the water quality storm (aka "first flush"). The City Engineer and review engineer determine whether or not the development plans submitted accomplish this goal. The City of Liberty rarely completes new flood management projects. However, in the event that one is scheduled on the capital projects list, the City Engineer will review the plans to determine if the water quality storm has been effectively treated.

The City has developed a list of existing flood control projects. At this time, all of these projects are privately owned and there is no enforcement mechanism to require retrofitting unless a redevelopment occurs in the contributing watershed. However, when such a redevelopment occurs, treatment of the water quality storm will be required.

The annual report will document if any flood management projects have been reviewed and, if so, where they are located and how water quality impacts were taken into account.

- 4.6.K** The City of Liberty will evaluate the current Stormwater Management Program including training, inspection procedures, and other municipal operation procedures to ensure compliance with the MS4 permit requirements. Any changes necessary to be in compliance with the permit will be completed within one (1) year of this permit issuance.

4.6.L N/A

- 4.6.M** Using adaptive management, the City of Liberty will review their Municipal Operations Program, at minimum, annually and update implementation procedures as necessary.

Annual review of MCM 6			
Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted above?
2021			
2022			
2023			
2024			
2025			

5.3 MS4 Stormwater Management Program Report

5.3.A A report to the Department 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. The report will be submitted on the Department approved, MS4 Stormwater Management Program Report form.

The annual reports will be submitted through the eDMR system. This is accessible through the Missouri Gateway for Environmental Management (MoGEM): <https://dnr.mo.gov/mogem/>

The City Engineer will have access to the eDMR system. His role in the eDMR system is “Organization Official”.

Annual Report Submittal		
Permit Year	Date of Submittal	Submitted by whom?
2021		
2022		
2023		
2024		
2025		