## KANSAS STORMWATER 2023 ANNUAL REPORT FORM FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

Permittee [Agency Name] Mailing Address 1:	City of Lawrence, 6 E 6 <sup>th</sup> Street
Mailing Address 2:	PO Box 708
Municipality:	City of Lawrence
State:	Kansas
Zip Code:	66044
MS4 Program Contact - Person:	Jonathan Gutierrez, Environmental Manager
Contact E-Mail Address:	jgutierrez@lawrenceks.org
Contact Phone Number:	785-832-7808
MS4 Program Construction Contact - Person	Jonathan Gutierrez, Environmental Manager
Construction E-Mail Address:	stormwater@lawrenceks.org
Contact Phone Number:	785-832-7808
Kansas Permit Number: — Ex. M-MC21-SU01	M-KS31-SU01

Please place an "X" in the left box if any information has changed from previous years

Reporting period covers activities from January 1, 2023 through December 31, 2023.

This annual report must be submitted to the Kansas Department of Health and Environment (KDHE) by February 28th, 2024. The annual report is to be submitted as PDF files to KDHE via Kansas Environmental Information Management System (KEIMS). There is no requirement to provide hard copies of any documents.

### **IN ADDITION**, provide the following:

- **1.** A current copy of the Stormwater Management Program (SMP) Document as a PDF file along with the Annual Report.
- 2. Include an executive summary to this report which briefly covers the major aspects of the MS4 stormwater management program enacted during the year. In completing the executive summary, the preparer should address the following questions:
  - 1. Were there any aspects of the program that appeared especially effective at reducing pollutants in your stormwater discharge?
  - 2. Were there any aspects of the program that provided unsatisfactory results?
  - 3. What was the most successful part of the program?
  - 4. What was the most challenging aspect of the program?
  - 5. Describe any City/County area MS4 clean-ups and the participation.
  - 6. Describe the elected officials' participation in the stormwater pollution elimination.
  - 7. Describe the collaboration with other organizations to eliminate stormwater pollution.
  - 8. If an audit/inspection of your MS4 program was conducted by EPA or KDHE during the year, list the items the audit/inspection report identified as required changes and provide a narrative explanation of how the changes were implemented or explain the plan to implement the changes and identify a target date for final implementation.

The executive summary does not need to be extensive and detailed. It is anticipated the executive summaries will range from one half of a page to two pages in length depending on the scope of the program.

**3.** Any new stormwater ordinances/resolutions or revised ordinances/resolutions which have not already been submitted to KDHE for review and retention.

## TOPICS REQUIRED TO BE ADDRESSED IN THIS REPORT AS IDENTIFIED IN PART V OF THE PERMIT

Within the next one or two pages, or perhaps more if so desired, provide comments addressing the following items:

- Provide the status of compliance with permit conditions, an assessment of the appropriateness of the implemented Best Management Practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP), and the measurable goals with an indication of the progress toward meeting the goals for each of the six minimum control measures.
  - See "Progress Achieving Goals" column of BMP tables below.
- 2. Provide results of information collected and analyzed, (for example test results, surveys, or public comments/input) during the annual reporting period. This may include monitoring data used to assess the success of best management practices with respect to reduction in pollutant discharge. Include an interpretation of the information which addresses success or failure of the portion of the program for which the information applies.
  - See 2023 MS4 Wet Weather Monitoring Summary Report for monitoring data and analysis.

- 3. Provide results of information collected and analyzed, if any, during the annual reporting period, including monitoring data used to assess the success of the program at reducing the TMDL regulated pollutants.
  - See 2023 MS4 Wet Weather Monitoring Summary Report for monitoring data and analysis and "Progress Achieving Goals" column of BMP tables below.
- 4. Provide a summary of the stormwater activities that were scheduled to be undertaken during the previous calendar year and the status of these activities.
  - See revised City of Lawrence Stormwater Management Plan and "Progress Achieving Goals" column of BMP tables below.
- 5. Provide a summary of the stormwater activities which are scheduled to be undertaken during the next calendar year (including an implementation schedule).
  - See revised City of Lawrence Stormwater Management Plan.
- 6. Provide a map showing changes in the permittee's Permit Area if the permit area has changed within the year.
  - See City of Lawrence 2023 Annexation Map.
- 7. Provide a description of significant changes in any of the BMPs.
  - See 2023 MS4 Executive Summary Report and "Progress Achieving Goals" column on the BMP tables below.
- 8. Provide a list of any ordinances or resolutions which were updated in the last year and are associated with the SMP. Please note, page on of this report requires submission of any new stormwater related ordinances or resolutions or any such updated ordinances or resolution be submitted with this annual report.
  - None.
- 9. Provide a list of other parties (such as other municipalities or consultants), which are responsible for implementing any of the program areas of the Stormwater Management Program.
  - Friends of the Kaw and KAWS Upper Wakarusa WRAPS. See 2023 MS4 Executive Summary.
- 10. For Phase I permittees only, provide a summary of the inspection results, including the wet weather surface water quality monitoring test results, and information obtained under PART III <u>Monitoring Industrial</u> <u>Stormwater Discharges</u> section of this permit.
  - *N/A*

## SIX MINIMUM CONTROL MEASURES FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) WITH NPDES PERMITS

The following outlines the NPDES permit requirements for implementation of the Six Minimum Control Measures as required under Kansas MS4 permits issued by the KDHE. The NPDES permit provided to the MS4 authority should be reviewed for additional requirements associated with implementation of the Six Minimum Control Measures such as deadlines for the implementation of the requirements associated with the individual measures. The general requirements are as follows:

**A. Six Minimum Controls** — The permittee shall develop and implement Best Management Practices (BMPs) with measurable goals for each of the six minimum control measures. The six minimum control measures and the associated requirements are listed and explained as follows:

## 1. Public Education and Outreach

The permittee shall implement a public education program which includes distribution of educational materials to the community or conducting equivalent outreach activities which address the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

## 2. Public Involvement and Participation

The permittee shall implement a public involvement and participation program to solicit public comment and recommendations regarding the BMPs and measurable goals utilized by the permittee to comply with the permit. The permittee shall comply with state and local public notice requirements when implementing a public involvement and participation program.

## 3. Illicit Discharge Detection and Elimination

The permittee shall:

- a. develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4;
- b. Develop a storm sewer system map of the permittee's MS4, showing the location of all outfalls, either pipes or open channel drainage, showing the names and location of all streams or lakes that receive discharges from those outfalls. A copy of the map shall be submitted to KDHE. This map may be submitted as a PDF file(s) on a CD or DVD.
- c. Enact ordinances or resolutions to prohibit non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions if the permittee has such authority. A copy of the ordinances or resolutions shall be submitted to KDHE.
- d. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
- e. Develop and implement a plan to detect and address prohibited non-stormwater discharges, including but not limited toillegal dumping, to the storm sewer system. Unless identified byeither the permittee or KDHE as a significant source of pollutants

to waters of the state, the following examples of non-stormwater discharges are not prohibited from entering the MS4:

- Water line flushing
- Diverted stream flow
- Rising groundwaters
- Uncontaminated groundwater infiltration as defined under 40 CFR 35.2005(20) to separate storm sewers
- Uncontaminated pumped groundwater
- Contaminated groundwater if authorized by KDHE and approved by the municipality
- Discharges from potable water sources •
- Foundation drains
- Air conditioning condensate
- Irrigation waters •
- Springs •
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing •

4. Construction Site Stormwater Runoff Control

- Occasional not-for-profit car wash activities
- Flows from riparian habits and wetlands
- Dechlorinated swimming pool discharges excluding filter backwash
- Street wash waters (excluding street sweepings which have been removed from the street)
- Discharges of flows from firefighting activities
- Heat pump discharge waters (residential) only)
- Treated wastewater meeting requirements of a NPDES permit
- Sump pump drains
- Other discharges determined not to be a significant source of pollutants to waters of the state, a public health hazard, or a nuisance

The permittee shall develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one 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 acre or more. The program must include the development and implementation, at a minimum, of the following:

- a. Permittees which have the authority to enact ordinances or resolutions shall enact such ordinances or resolutions to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State and Local law;
- b. Requirements for construction site owners or operators to implement appropriate erosion and sediment control best management practices;
- c. Requirements for construction site owners or operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that are likely to cause adverse impacts to water quality;
- d. Procedures for site plan review which incorporate consideration of potential water

quality impacts;

- e. Procedures for receipt and consideration of information submitted by the public;
- f. Procedures for site inspection and enforcement of control measures.

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

The permittee shall develop, implement, and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development and implementation, at a minimum of the following:

- a. BMPs to prevent or minimize adverse water quality impacts;
- b. Strategies which include a combination of structural and/or non-structural BMPs appropriate for the municipality;
- c. For permittees which have the authority, ordinances or resolutions to address postconstruction runoff from new development and redevelopment projects to the extent allowable under State and local law;
- d. Ensure adequate long-term operation and maintenance of BMPs

## 6. Pollution Prevention/Good Housekeeping for Municipal Operations

The permittee shall develop and implement an operation and maintenance program that includes employee training to prevent and reduce stormwater pollution from municipal operations activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

## B. Stormwater Management Program

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
$\boxtimes$			Has the Stormwater Management Program (SMP) been developed and implemented?
			Has the SMP been modified or updated during this reporting period?
	X		If the answer to question 2 above was "yes," has the modified SMP been submitted to KDHE for review?

If the answer to item 3 is a "NO," a copy of the updated SMP must be submitted with this annual report. If it is anticipated a measurable goal cannot be met in the next year the SMP should be modified and submitted to KDHE for review. The modifications may include different BMPs and/or revised goals to avoid being in a position of non-compliance. However; reasonable BMPs with reasonable goals

must be implemented or KDHE may require the permittee to modify the SMP to include additional or better BMPs and/or more reasonable goals.

### C. Total Maximum Daily Load (TMDL) Best Management Practices (BMPs)

Some permittees are required to implement BMPs to reduce the discharge of listed TMDL regulated pollutants (potentially any or all of the following pollutants – bacteria, nutrients, and sediment)

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
Ø			Were any BMPs intended to attenuate the discharge of TMDL regulated pollutants implemented? See your permit to determine if TMDL regulated pollutants are listed for the receiving stream affected by your stormwater system (TMDL Table).
$\boxtimes$			List all of the BMPs intended to attenuate the discharge of TMDL regulated pollutants as identified in the SMP and provide the requested information in the following table.

List all the TMDL BMPs as identified in the SMP and provide the requested information in the following table.

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## D. TMDL BMP Table

The BMPs listed in the below table should add up to a minimum of 6 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	REGULATED TMDL PARAMETERS	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp T M D L - 01	Install pet waste stations which include a glove/bag dispenser with signage and waste can to encourage pet waste disposal at either parks, trails, rest areas or other public lands owned by the permittee.	Bacteria and nutrients	<ul> <li>The City currently maintains five pet waste bag stations that include signage and waste cans:</li> <li>4 – Mutt Run Dog Park (1330 E 902 Rd)</li> <li>1 – Riverfront Dog Park (North 2<sup>nd</sup> St. and Highways 24 and 40)</li> </ul>	1
Lbmp T M D L - 03	Install and operate a constructed wetland.	Nutrients and sediment	In 2001, the City began constructing a wetland mitigation area in response to an expansion of the Lawrence Municipal Airport. This wetland, still in operation, is located north of the Sandra J Shaw Community Health Park at 110 Maine St. and covers approximately 4 acres. A constructed City-owned wetland is also currently in operation directly south of 711 E. 23rd Street (USD 497 Facilities and Operations Dept.). The area covers approximately 1 acre.	2
Lbmp T M D L - 05	Develop a pet waste brochure or flyer document to educate the public about animal waste contamination of stormwater. The document encourages pet owners to pick up their pet's waste. Alternately, post the document on social media or the municipal website.	Bacteria and nutrients	The City's pet waste flyer is provided to all new adoptive dog owners at the Lawrence Humane Society. In 2023, 1,063 flyers were distributed. The document is available on the City's stormwater program webpage throughout the year. Additionally, City staff posted an educational pet waste social media message in April via the City's Facebook and Twitter handles. The post received 3,695 impressions or views.	1

Lbmp T M D L - 06	Distribute "Only Rain Down the Drain" door hangers or similar document.	Any/all	A stormwater informational rack card was distributed at outreach events and public meetings and made available in public locations (e.g. City Hall, public library) throughout the year. Combined distribution of stormwater doorhangers was estimated at 100. The document information was distributed through various social media posts and remained accessible via the City's stormwater webpage throughout the year.	2
Lbmp T M D L - 07	Inspect 10% of all known MS4 outfalls for dry weather discharges either annually or twice per year to identify potential illicit discharges.	Any/all	Six (6) – or 10% – of the City's 57 known MS4 outfalls were inspected for dry weather discharge in 2023.	3
Lbmp T M D L - 09	Implement a program to collect and properly dispose of litter, on four separate occasions per calendar year, within areas where littering has been identified as a problem. Such areas may include municipal parks, trails, rest areas, or other public lands owned by the permittee.	Any/all	The City provided a dumpster and other sponsorship for the Friends of the Kaw 9th annual river cleanup event on April 22, 2023. Over 100 volunteers cleaned trash from the Kansas River in North Lawrence. The City also provided trash bags, gloves, sticks, wheelbarrows, and dumpsters for community clean-ups of public areas near camping and support sites for unhoused residents along the Kansas River on May 20-21, June 3, and June 17, 2023. Additionally, City Parks and Recreation coordinated park cleanups with at least 20 civic groups, student organizations, and neighborhood associations. Most groups have 'adopted' a park or area, which included Burrough's Creek Linear Park, Sandra Shaw Park and lake, and a Kansas River boat ramp known to collect waste. Throughout the year, at least 16 City parks and waterside areas were regularly cleaned.	2

Ioadings of sediment and nutrients, including bioretention, detention basins, porous pavement, retention ponds, media filters and any composite treatment trains of multiple BMPs.City's new Transit Central Station (2315 Bob Billings Pkwy). The separators receive and treat flow via curb inlets at the station before draining into a newly constructed detention basin.4Lbmp T M D L - 12Construct a stream bank stabilization project.SedimentIn 2021, the City constructed over 550 linear feet of riverbank protection as part of the City's Kansas Riverbank Stabilization project (PW17- E9).2		TOTAL P	OINTS CLAIMED FOR T	MDL	17
loadings of sediment and nutrients, including bioretention, detention basins, porous pavement, retention ponds, media filters and any composite treatment trains of multiple BMPs.	Lbmp T M D L - 12	<sup>2</sup> Construct a stream bank stabilization project.	Sediment	In 2021, the City constructed over 550 linear feet of riverbank protection as part of the City's Kansas Riverbank Stabilization project (PW17- E9).	2
Lbmp T M D L - 11       Construct and maintain a structural BMP to reduce       Any/all       In 2023, two Hydro International Downstream         Defender vortex separators were installed at the       Defender vortex separators were installed at the	Lbmp T M D L - 11	<sup>1</sup> Construct and maintain a structural BMP to reduce loadings of sediment and nutrients, including bioretention, detention basins, porous pavement, retention ponds, media filters and any composite treatment trains of multiple BMPs.	Any/all	In 2023, two Hydro International Downstream Defender vortex separators were installed at the City's new Transit Central Station (2315 Bob Billings Pkwy). The separators receive and treat flow via curb inlets at the station before draining into a newly constructed detention basin.	4

## E. Stormwater Management Program Requirements (Six Minimum Control Measures)

1. Public Education and Outreach (Table)

List all of the public education and outreach BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 7 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp P Ed & O - 01	Maintain a stormwater webpage for the permittee.	<ul> <li>The City of Lawrence Stormwater program webpage was maintained and available throughout 2023. The City of Lawrence Stormwater webpage received a total of 1,237 page views, an average of 103 views/month, in 2023.</li> <li>Items updated/added to the webpage in 2023 included: <ul> <li>seasonal banner changed for de-icer, pet waste pickup, and Fall leaves reminders</li> <li>updated lawn and landscaper information</li> <li>updates/improvements to the Stormwater Program Map (linked on page)</li> <li>website link updates (including updated SMP and 2022 Annual Report)</li> </ul> </li> </ul>	2

	(either flyers, brochures, catalog mailings, handouts, or e-mails) addressing various pertinent stormwater public education topics.	<ul> <li>The Oity principal and miss approximately 20,000 tailing bills deal 1</li> <li>month, which include the City newsletter (The Flame) inserted as a standalone insert. "Important Messages" are printed directly onto utility bills and on emailed e-bills. Customers receiving e-bills total 14,900.</li> <li>Educational materials distributed in 2023 included: <ul> <li>Article in The Flame (June): "Use Your Water Wisely This Summer," highlighted rain capture/rain barrels</li> <li>June utility bill insert - Annual floodplain information for residents</li> <li>Article in The Flame, (Aug): "New Guidelines for City Recycling"</li> <li>Article in The Flame (Oct): "Protect our Stormwater from Illicit Discharges," provided IDDE guidance for residents</li> <li>Utility bill "Important Message" (Oct): guidance for residents on keeping leaves out of the street/storm system</li> <li>Online versions of The Flame newsletter contained messaging on stormwater-related topics in May and June; 744 recipients.</li> </ul> </li> <li>(*Approximate mailout total messaging reach of 20,300 x 5 = 101,500)</li> <li>Physical distribution of education materials in 2023 included: <ul> <li>E-waste Event, 05/13/23: participant handouts included "15 Items" Recycling flyer, battery bag stickers, HHW and Stormwater rack cards; 3,200 total pieces distributed</li> <li>Educational pet waste flyers were distributed by the Lawrence Humane Society with dog adoption packets: 1,063 paper flyers distributed in 2023.</li> <li>Approximately 100 doorhangers with targeted stormwater pollution concern messages/guidance, were distributed to residents in neighborhoods with identified problems (e.g. paint waste, leaves in the street)</li> </ul> </li> <li>Total educational piece distribution = 121,507 <ul> <li>This total exceeds 42,421 total housing units estimated per 2020 US Census Bureau data.</li> </ul> </li> </ul>	2
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Lbmp P Ed & O - 03	Provide either training or educational materials to permittee identified businesses at high risk of contributing to stormwater pollution. Such businesses can include, but are not limited to, food service, auto service, disaster response and janitorial services. The training or educational materials shall address best management practices they can employ to minimize or avoid adverse stormwater impacts due to their operations.	<ul> <li><u>Builders/Developers:</u> On 10/24/23, City staff presented stormwater training to 37 area builders and developers through the Lawrence Home Builders Association. Topics covered included background on federal, state, and local stormwater regulations, MS4 permit requirements, state and local SWPPP requirements, SWPPP preparation and implementation, construction site BMPs, and City construction site inspection and enforcement processes.</li> <li><u>Lawn Service</u>: City staff emailed stormwater BMPs related to lawn care/landscaping to 48 area lawn/landscape companies on June 28, 2023.</li> <li><u>Concrete Contractors:</u> In May 2023, City staff emailed 39 area concrete contractors notifying them of city ordinances and BMPs regarding concrete washout.</li> <li><u>Food Service</u>: City staff emailed a FOG/stormwater educational notification to 264 foodservice facilities on 12/19/23.</li> <li>On a case-by-case basis, City staff distributed educational or counsel documents to various businesses (e.g. concrete mix company re: track out issues) in 2023.</li> </ul>	2
Lbmp P Ed & O - 05	Post the municipality's MS4 permit and SMP document on either the stormwater web page or the municipal webpage.	The City of Lawrence MS4 Permit and Stormwater Management Plan have been available on the city's website throughout 2023.	1

Lbmp P Ed & O - 07	Provide educational material annually to at least four groups, including each of the following types: Residents, Businesses/Institutions, Commercial entities/Developers, and Industrial facilities. The educational material may be provided as any of the following: • Brochures • Flyers • E-mails • Press release	<ul> <li><u>Lawncare Businesses</u>: City staff emailed stormwater BMPs related to lawn care/landscaping to 48 area lawn/landscape companies on 6/28/23.</li> <li><u>Residents/Businesses</u>: In October, customer utility bills and the City newsletter insert, The Flame, contained information regarding illicit discharge detection. These were mailed to approximately 20,300 residential and business utility customers.</li> <li><u>Pet Owners</u>: Throughout 2023, 1,063 educational pet waste flyers were distributed via Lawrence Humane Society dog adoption packets.</li> <li><u>Construction Businesses</u>: In the week of May 29, 2023, City staff sent a letter to 39 concrete contractors notifying them of City ordinances and BMPs regarding concrete washout.</li> <li><u>Food Service</u>: City staff sent an email containing Fats, Oil, &amp; Grease (FOG) and stormwater educational information to 264 food service facilities on 12/19/2023.</li> </ul>	3
Lbmp P Ed & O - 08	Provide stormwater education for students at a school campus within K-12 (those grades present at the campus) within the permittee's jurisdiction or within 30 miles from this permit area.	City of Lawrence entered into a service agreement with Friends of the Kaw (FOK) for Kids About Water (KAW) programming to be provided to Lawrence students at Lawrence High School and Free State High School for the 2022-2023 and 2023-2024 school years. The overall focus of this hands-on, interactive program is to develop an understanding of water quality, watersheds, and stormwater runoff in the school community and the relationship between runoff, pollution, and water quality. In 2023, 123 students (7.8% of 2022-23 enrollment at Lawrence High School) participated in program classroom learning, stormwater runoff calculations and demonstrations, as well as stream sample collection and data analyses. Stream sampling was conducted during an off-site field trip to the Baker Wetlands. In fall of 2023, an additional 50 students (2.8% of campus) of Lawrence Free State High School completed the same training program which included stream sampling activities at a tributary in the school's vicinity. Additional classes at this campus are being planned for Spring of 2024.	3

Lbmp P Ed & O - 09	Operate an information booth at a large public event, (such as a sports event, fair, or music festival) where at least an estimated 1,000 or more individuals attend. Alternately, operate an information booth at multiple public events, (such as a sports event, fair, or music festival) where a cumulative estimated total of 3,000 or more individuals attend. And finally, a single point can be claimed for operating an information booth at a public event where at least an estimated 200 or more individuals attend.	<ul> <li>The City hosted an electronic waste recycling event, (estimated attendance of 865 vehicles) on 5/13/23. During a four-hour period, 64,480 lbs. of electronics were collected from area residents and businesses for recycling.</li> <li>All attendees were engaged and offered educational materials including stormwater, recycling, HHW, and FOG (Fat, Oil and Grease) topics.</li> <li>Approximately 3,200 stormwater educational pieces were distributed to area residents. Six (6) City staff members worked at the event for 100% of the open hours (9AM - 1PM).</li> </ul>	1
Lbmp P Ed & O - 10	Provide either training or educational materials to lawn/turf care service entities addressing best management practices they can employ to minimize or avoid adverse stormwater impacts due to their operations.	Municipal Services & Operations emailed Best Management Practices for lawn and landscape companies to 48 companies on 06/28/23.	2
Lbmp P Ed & O - 12	Create a stormwater information brochure to provide to the public at public meetings and/or hearings.	A printed, informational brochure or "rack card" is available for public distribution at City Hall (1st floor entry for City Commission and other public meetings) and the public library. The stormwater informational card is also posted on the City's stormwater webpage.	1
Lbmp P Ed & O - 15	Develop or participate in an ongoing social media program on pertinent stormwater public education topics.	<ul> <li>Throughout 2023, the City made monthly educational posts through the City's Facebook and Twitter social media accounts. Posts included topics of lawncare, deicer usage, fall leaves, recycling and HHW management; 8 targeted stormwater posts received 68,579 impressions.</li> <li>Overall, the City posted at least 21 environmentally-themed messages (including E-waste and Earth Day event notifications), which received more than 137,000 impressions or views.</li> </ul>	2

Lbmp P Ed & O - 16	Operate an information booth at a public event/environmental-themed event.	Lawrence's Earth Day celebration on 4/22/23 drew approximately 1,000 attendees. The City's booth was staffed 100% of the time among five Environment/Sustainability employees. Staff offered recycling games for children and educational information about recycling, conservation and energy topics, HHW, and stormwater. City staff distributed recycling-themed children's giveaways and reusable bags. The City hosted an electronic waste recycling event, (estimated attendance of 865 vehicles) on 5/13/23. All attendees were engaged and offered educational materials including stormwater, recycling, HHW and FOG (Fat, Oil and Grease) topics. Staff distributed approximately 3,200 educational pieces to area residents. Six (6) City staff members attended the event for 100% of the open hours (9AM - 1PM).	2
	TOTAL POINTS CLAIMED FOR	R PUBLIC EDUCATION AND OUTREACH	21

## E. Stormwater Management Program Requirements (Six Minimum Control Measures) (CONTINUED)

2. Public Involvement and Participation (Table)

List all public involvement and participation BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 6 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp P I/P - 03	Hold park or stream bank clean-up events for public volunteers to aid municipal staff in removing trash, debris, or pollutant sources from the selected clean-up area.	<ul> <li>The City was a major sponsor of the Friends of the Kaw River</li> <li>Cleanup event on 4/22/23. Over 100 volunteers (including City staff) participated in removing trash from the Kansas River riverbanks.</li> <li>City Parks and Recreation coordinated park cleanups with at least 20 civic groups, student organizations, and neighborhood associations.</li> <li>Most groups have 'adopted' a park or area, which included Burrough's Creek Linear Park, Sandra Shaw Park and lake, and a Kansas River boat ramp known to collect waste. Throughout the year, at least 16 City parks and waterside areas were regularly cleaned.</li> <li>Additionally, Parks and Rec worked with various citizens to clean wooded encampment areas of excess trash.</li> <li>The City donated dumpster service to both Friends of the Kaw and the boat ramp area cleanup efforts.</li> </ul>	3
Lbmp P I/P - 05	Provide at least two events for residents to engage in cleanup activities and improve water quality in the municipality.	Lawrence Parks and Recreation hosted multiple "Prairie Restoration Days" at Prairie Park in Lawrence (August 26, September 7, and October 3, 2023). Volunteer workdays included the removal of invasive trees and plants, seeding native plants, and education activities. The events were co-sponsored by Grassland Heritage, Native Lands Restoration and KACEE.	3
Lbmp P I/P - 06	Establish a program to encourage residents to install stormwater treatment best management practices on their property.	For its Residential Native Tree Outreach Program, the Lawrence Parks and Recreation Dept.'s Horticulture and Forestry Program gave away 1,000 (up from 500 in 2022) saplings (80% redbud and 5% each of lacebark elm, arborvitae, lilac, and white pine) to area residents on 3/17/23 at the City's St. Patrick's Day parade. The trees come from the Kansas Forest Service's Conservation Tree Program and are primarily (85%) natives.	3

	TOTAL POINTS CLAIMED FOR PUBLIC INVOLVEMENT AND PARTICIPATION			
Lbmp P I/P - 10	Establish a program to employ (either paid or unpaid) high school or college age environmental interns in an environmental related program including but not limited to either the wastewater utility, stormwater utility, potable water utility or solid waste utility.	Starting in summer of 2023, the City's GIS Manager and MSO Department's GIS Division hired and trained an intern on stormwater field collection procedures and GPS collection. The intern worked a minimum of 8 weeks and was fully trained and hired as full-time staff.	2	
Lbmp P I/P - 09	Distribute stormwater educational materials to the public within this permit area. Alternately, the permittee may provide stormwater educational materials, e.g. brochures, flyers, or pamphlets that address various stormwater topics. Other nearby municipalities may distribute these materials to the public. The nearby municipalities must be within 30 miles from this permit area.	<ul> <li>City Environment staff distributed information packets to over 800 attendees of the Lawrence Electronic Waste Recycling event on May 13, 2023.</li> <li>Packets included information on 3 topics: <ul> <li>Stormwater rack cards (678 @.31824 ea =\$215.77)</li> <li>Household Hazardous Waste info cards (678 @.31824 ea = 215.77) and 678 "battery bag" stickers, (unknown value)</li> <li>Recycling cart inlay handout (678@.25 ea. = \$169.50)</li> <li>15 Items 'deep dive' recycling handout (500 @.41ea = \$214.02)</li> </ul> </li> <li>The total value of distributed materials (\$816.06) was &gt;\$50 for each topic. These materials were also distributed at outreach events and the Lawrence Earth Day event on April 22, 2023.</li> <li>Throughout 2023 MSO Environment and Field staff distributed additional Stormwater ("Pollution found in your area" and "Leaves don't belong in the street") doorhangers to various residents/neighborhoods, on a case-by-case basis.</li> </ul>	3	
Lbmp P I/P - 07	Enact either an ordinance, a resolution, or other enforceable requirement that requires: Pet owners or their keepers to immediately and properly dispose of their pet's solid waste deposited at parks or rest areas owned by the permittee.	City Code 9-902 (C) (7) requires that pet waste be disposed of as solid waste or sanitary sewage. This ordinance is also referenced in Park Regulations 6(a) on the City's Parks & Recreation webpage, which states, "Owners are required to dispose of pet waste properly," with reference to the applicable City Code. Pet waste bag dispensers and signs are installed at the City's two dog parks.	1	

## E. SMP Requirements (Six Minimum Control Measures) (Continued)

1. Illicit Discharge Detection and Elimination

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
$\boxtimes$			Has a program/plan been developed and is it presently implemented to detect and address illicit/prohibited discharges into the MS4?
			If yes, describe the plan below:
			<ul> <li>Maintaining a map of MS4 system, including outfalls, pipes and open drainage, receiving streams/lakes</li> </ul>
			<ul> <li>Enforcing ordinance prohibiting illicit/non-stormwater discharges into MS4</li> </ul>
			<ul> <li>Providing targeted outreach documents to residents and high-risk businesses regarding illicit/non-stormwater discharges</li> </ul>
			<ul> <li>Evaluating MS4 outfalls for dry weather discharges; created illicit discharge reporting application for use by City staff and contractors, provided training to City staff and contractors on identifying and reporting possible illicit discharges from the field.</li> </ul>
			<ul> <li>Enforcing ordinance prohibiting use of septic tanks or cesspools within the MS4</li> </ul>
			<ul> <li>Maintaining a program for regular CCTV inspection, direct visualization of MS4 system</li> </ul>
			<ul> <li>Performing regular jetting of sanitary sewer lines as preventative maintenance</li> </ul>
			<ul> <li>Maintaining FOG program to prevent fats, oils, and grease in sanitary sewer system</li> </ul>
			<ul> <li>Operating a household hazardous waste facility for City and county residents.</li> </ul>
			<ul> <li>Operating a SCADA system, generators to maintain reliability of City sanitary sewer lift stations</li> </ul>
			<ul> <li>Citizens are directed to report illicit discharges by calling the main MSO department line, which is answered and dispatched to appropriate staff by MSO administrative staff or by an answering service for calls received after hours.</li> </ul>
			Has a map of the MS4 been developed, showing the location of all outfalls, either pipes or open channel drainage, showing names and location of all streams or lakes receiving discharges from the outfalls? If yes, attach map.
$\boxtimes$			The permit may require the permittee enact ordinances, or resolutions. Have ordinances, or resolutions, or regulations to prohibit non-stormwater discharges into the storm sewer system been enacted?
			If yes, list ordinances/resolutions and their effective dates below:
			<ul> <li>Ordinance 7373 for Stormwater Pollution Prevention, Sept. 1, 2001</li> <li>Plumbing code modification, July 1, 2019</li> <li>Ordinance 9887 for Fat, Oil, or Grease storage, Dec. 21, 2021</li> </ul>

	Have the ordinances, resolutions, or regulations been modified?
	If yes, list ordinances/resolutions and their effective dates below:

List all the Illicit Discharge Detection and Elimination BMPs as identified in the SMP and provide the requested information in the following table

## E. Stormwater Management Program Requirements (Six Minimum Control Measures) (CONTINUED)

3. Illicit Discharge Detection and Elimination (Table)

List all illicit discharge detection and elimination BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 7 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp I D D & E - 02	Implement a program to abandon failed or failing residential or commercial on-site wastewater treatment facilities. These on-site wastewater treatment systems such as septic tank – lateral systems or lagoon systems are then connected to the municipal wastewater collection system for treatment of wastewater at the municipal wastewater treatment plant.	City Ordinance 3218 forbids the use or construction of cesspool or septic tank usage within the City, except on an approved, temporary basis pending construction of sanitary sewer main in the area. In 2023, a single-family residence at 4605 Bauer Brook Ct. abandoned a private septic system and connected to the City's sanitary sewer system.	3
Lbmp I D D & E - 04	Implement a program to evaluate MS4 outfalls to identify illicit discharges. Inspect at least 5% of the known MS4 outfalls during a calendar year and evaluate the ones which have dry weather discharges. Evaluate the water quality of the dry weather discharges to recognize non- stormwater contributions and trace the source of any illicit discharge.	EHS staff inspected 6 of 57 (10%) known MS4 outfalls for dry weather discharge in 2023. One (1) had dry weather discharge that staff evaluated for potential illicit discharge.	1

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Lbmp I D D & E - 05	Distribute a letter (or flier) and/or e- mail along with a press release from a municipal official with the intent of reaching every resident and business in the MS4 permit area. The distributed documents shall provide information on how to avoid illicit discharges to the MS4, i.e., proper disposal methods for common substances or materials often discharged illicitly. Provide a link to the municipal website where applicable ordinances and disposal guidance are posted.	<ul> <li>During the month of October, the City distributed an article, "Protect our stormwater from illicit discharges," to 20,300 ratepayers via The Flame newsletter which was included in City utility bills.</li> <li>Additionally, all residential and business customers (35,200; paper and e-billing) received an 'on-bill' message in October regarding managing fall leaves for stormwater protection.</li> <li>Finally, on October 25, a press release "Don't let Fall Leaves Play Tricks on our Stormwater System!" described how to identify illicit discharges and what to do about them. Links were provided to the City's Stormwater and Yard Waste Management webpages.</li> </ul>	2
Lbmp I D D & E - 06	Inspect, by televising pipelines or direct visualization of open channel drainage, 2% of the MS4 system within the permit area all conducted within a 12-month period to aid in identifying illicit discharges as well as evaluate the condition of the storm sewer lines/drainage channels-ditches. If in a 12-month period 10% of the MS4 system is inspected a higher point value may be claimed.	City field operators perform CCTV inspection of stormwater lines and channels as part of regular workflow. The City also partnered with a contractor (TREKK Design Group) to inspect and evaluate all sanitary and storm sewer infrastructure via CCTV over multiple years. In 2023, staff and contractors inspected and televised 172,777 ft. of stormwater lines and structures, representing 10% of the total stormwater system. In 2023, City staff investigated 42 stormwater pollution concerns in the field, including response to 6 SSOs.	5
Lbmp I D D & E - 07	Implement a Household Hazardous Waste Collection Program (HHWCP) or document others have implemented such a program to provide such service to all property owners or residents located within the permit area.	The City operates an HHW facility open to city and county residents. During 2023, the facility logged 4,133 total visits including 3,212 household drop-off appointments, 33 business hazardous waste drop- offs, and 888 product reuse appointments. This resulted in 128,701.60 lbs. of waste processed and shipped for proper disposal, and 22,945.06 lbs. of reusable items given back out to the public.	3

Lbmp I D D & E – 08 Implement a program to increase the reliability of sanitary sewer pump stations above the minimum standard design requirements.	All wastewater lift stations are currently connected to the City's SCADA system to indicate near real-time notification of pump functions and failures and wet well levels. Stations also have bypass pumping ability and can be hooked up to the force main. Three lift stations currently have backup generators on site. A bump- out generator hookup was added to lift station #10 in 2023. These improvements remained operational throughout 2023.	4	
Lbmp I D D & E - 09 Provide a contribution to area recycle programs or programs (such as household hazardous waste disposal facilities, e-cycle facilities, paper shred facilities pharmaceutical disposal facilities etc.) designed to properly dispose of types of waste or materials which have previously been discarded to or adjacent to either the MS4, streams, or lakes within or adjacent to the permittee's permit area. The area program must be within 30 miles from this permit area.	<ul> <li>The City funds and operates an HHW program open to all City and County residents.</li> <li>The City also operates and maintains open hours at its Compost Facility on Saturdays, March – December. All area residents may drop-off brush and lawn waste, thus keeping these materials out of storm sewers.</li> <li>The City provided printed materials – 678 each of HHW information cards, stormwater rack cards, "battery bag" stickers, and recycling information handouts (valued at over \$800) – for distribution at the E-Waste collection event, open to all area residents, on 5/13/23. Six (6) staff members worked at least 4 hours each at the event.</li> <li>Total contributions (materials and in-kind labor) were greater than \$500.</li> </ul>	2	
Lbmp I D D & E - 10 Inspect, 5% of the MS4 system Stormwater inlets and/or outfalls within the permit area all conducted within a 12-month period to aid in identifying illicit discharges. If in a 12-month period 15% of the MS4 system inlets and/or outfalls are inspected a higher point value may be claimed in the year the required percentage of inspections are completed.	<ul> <li>Environment staff inspected 6 (or 10% of) MS4 outfalls for dry weather discharge in 2023.</li> <li>City field operators inspect and clean stormwater inlets as part of regular workflow. In 2023, staff cleaned and vacuumed 46 inlets.</li> <li>The City also partnered with a contractor (TREKK Design Group) to inspect and evaluate all storm sewer infrastructure via CCTV over multiple years. As part of this project, staff and contractors inspected and televised 780 inlets in 2023, representing over 11% of MS4 stormwater inlets.</li> </ul>	3	
TOTAL POINTS CLAIMED FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION			

## E. SMP Requirements (Six Minimum Control Measures) (Continued)

2. Construction Site Stormwater Runoff Control

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
Ø			The permit requires the permittee, if they have such authority, to enact ordinances or resolutions. Have ordinances or resolutions to address construction site runoff from new development/redevelopment projects been enacted?
			If yes, list ordinances/resolutions and their effective dates below:
			Ordinance 7373 for Stormwater Pollution Prevention, Sept. 1, 2001
$\boxtimes$			Has a copy of the ordinances or resolutions been submitted to KDHE as required by the permit?
X			Has a procedure or program been developed requiring construction site owners and/or operators to implement appropriate erosion and sediment control best management practices?
			If yes, describe plan below:
			<ul> <li>Enforcing ordinance (Ord. 7373) requiring site owners/operators to use appropriate BMPs for sediment and erosion control on construction sites in MS4 including controls for wastes likely to adversely impact water quality.</li> </ul>
			<ul> <li>Ordinance includes processes for enforcement including issuing of Notice of Violations, Stop Work Orders, fines, or other remediation actions.</li> </ul>
			<ul> <li>Performing construction site inspections per issued building permits to monitor for and enforce required BMPs for sediment and erosion controls.</li> </ul>
			<ul> <li>Performing site plan reviews for SWPPPS/NOIs, erosion control plans, and FOG/grease interceptors when applicable</li> </ul>
			<ul> <li>Providing annual training to area contractors on federal, state, and local stormwater regulations, MS4 permit requirements, state and local SWPPP requirements, SWPPP preparation and implementation, construction site BMPs, and City construction site inspection and enforcement processes.</li> </ul>
X			Has a procedure or program been developed requiring construction site owners and/or operators to control waste such as discarded building materials, concrete truck washout, chemicals, paint, litter, and sanitary waste at construction sites likely to cause adverse impacts to water quality?
			If yes, describe procedure/program below:
			<ul> <li>Enforceable ordinance (Ord 7373) requiring site owners/operators to use appropriate BMPs for sediment and erosion control on construction sites also includes requirements to control and properly dispose of wastes.</li> <li>City Planning &amp; Development staff indicate installation and maintenance of</li> </ul>

		sediment and erosion control BMPs in compliance with City code as a condition of issued building permits.
		Has a procedure been developed and implemented requiring site plan review which includes consideration of potential water quality impacts?
		If yes, describe procedure below:
		<ul> <li>The City's Stormwater Engineer performs a review of site plans using a written stormwater plan review process.</li> </ul>
		• The Environmental Program Administrator reviews food service-specific site plans for FOG/grease interceptor compliance with international plumbing code as adopted by the City as City Code Chapter 5, Article 5.
		Has a procedure been developed for the receipt and consideration of information submitted by the public?
		If yes, describe procedure below:
		Citizens may report construction site pollution concerns by calling the main MSO department line, which is answered and dispatched to appropriate staff by MSO administrative staff or by an answering service for calls received after hours. EHS staff inspect reported sites for compliance with applicable City code or SWPPP requirements per the Enforcement Response Plan in the MSO Illicit Discharge Guidance Manual. Contractors/developers are also able to submit site plans, including Erosion Control Plans, NOIs, SWPPPs or other site documents for review and approval via the customer service system of the City's permitting and licensing software. Citizens may also report stormwater code concerns via an electronic form on the City's website.
		Has a procedure been developed and implemented for construction site inspection and enforcement of the control measures?
		If yes, describe procedure below:
		Environment staff inspect construction sites per issued building permits to monitor for compliance with City Ordinance 7373 and applicable SWPPPs and erosion control plans requiring the use of BMPs for sediment and erosion control and proper containment and disposal of wastes. Staff follow the Enforcement Response Plan to issue Notice of Violation, Stop Work Orders, fines, or other remediation actions.

List all the construction site stormwater runoff control BMPs as identified in the SMP and provide the requested information in the following table

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## E. Stormwater Management Program Requirements (Six Minimum Control Measures) (CONTINUED)

4. Construction Site Stormwater Runoff Control (Table)

List all construction site stormwater runoff control BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 6 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp C S S R C - 03	Provide access to at least one training class for contractors, developers or others involved with land disturbance projects which provides training on requirements for a Stormwater Pollution Prevention Plan (SWP2 Plan) and implementation of appropriate BMPs.	On 10/24/23, City staff provided stormwater training to 37 area builders and developers through the Lawrence Home Builders Association. Topics covered included background on federal, state, and local stormwater regulations, MS4 permit requirements, state and local SWPPP requirements, SWPPP preparation and implementation, construction site BMPs, and City construction site inspection and enforcement processes.	3
Lbmp C S S R C - 04	Develop a site plan review process which considers potential water quality impacts which may occur during construction as well as post construction impacts.	The City's Stormwater Engineer performs a review of site plans for SWPPP and NOI using a written stormwater plan review process. The Environmental Program Administrator reviews food service- specific site plans for FOG/grease interceptor compliance with international plumbing code as adopted by the City as City Code Chapter 5, Article 5.	2
Lbmp C S S R C - 05	Establish effective requirements for construction sites to control wastes. Develop through ordinance or other enforceable means requirements for construction site Operators or owners to control wastes. At a minimum control shall be imposed to prevent entry into the MS4 for the following wastes: • discarded building materials • concrete • truck washout chemicals, litter, and sanitary waste	City code Chapter 5-1, 131, and Chapter 9, Article 9 support stormwater pollution prevention by addressing construction site maintenance, general stormwater pollution prevention provisions, and enforcement of notice of violations. City staff monitored for and enforced these code parameters on sites throughout 2023. City Planning & Development staff indicate sediment and erosion controls as a condition of issued building permits and also provide a sediment control brochure to building permit applicants. Additionally, the City's Erosion and Sediment Control standard detail sheet is available on the City's website.	2

	Lbmp C S S R C - 07	Acquire or develop a software tracking system to track inspections and related tasks.	City staff used the Lucity Asset Management program throughout 2023 to document construction site inspections, as well as subsequent follow-up inspections, requests for corrective actions or compliance assistance, issuance of Notice of Violation letters, and any other subsequent activities related to the construction site inspection and enforcement process.	1	
TOTAL POINTS CLAIMED FOR CONSTRUCTION SITE STORMWATER RUNOFF CONTROL				8	

## E. SMP Requirements (Six Minimum Control Measures) (Continued)

3. Post-Construction Site Stormwater Management in New Development and Redevelopment

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
			The permit requires the permittee, if they have such authority, to enact ordinances or resolutions. Have ordinances or resolutions to address construction site runoff from new development and redevelopment projects been enacted?
			If yes, list ordinances/resolutions and their effective dates below:
			Ordinance 7373 for Stormwater Pollution Prevention (Sept. 2001)
			Ordinance 6778 adopted Stormwater Management Criteria (Feb. 1996)
			<ul> <li>Ordinance 7985 adopted City's Land Development Code (July 2006)</li> </ul>
$\boxtimes$			Has a copy of the ordinances or resolutions been submitted to KDHE as required by the permit?
$\boxtimes$			Has a post-construction stormwater runoff program been implemented?
			<ul> <li>If yes, describe the program below:</li> <li>Enforceable ordinance (Ord. 7373) requires maintenance of all publicly or privately owned ground, surfaces, structures or systems, (to include detention basins, ponds, swales, etc.)</li> <li>City Stormwater Management Criteria (Ord. 6778) requires property owners/successors to operate and maintain private detention facilities.</li> <li>The City's Land Development Code (Ord. 7985) requires mitigation of excess parking through use of storm drainage BMPs.</li> <li>All known City-owned and privately-owned structural BMPs within the MS4 are identified by the BMP Structure icon in the Stormwater Structures layer of the City's Stormwater Utility Network map.</li> <li>A written program requires maintenance activities for existing types of City-owned post-construction structural BMPs.</li> </ul>
$\boxtimes$			Have post-construction sites been inspected?
	$\boxtimes$		Are BMPs specified to minimize adverse water quality impacts?
$\boxtimes$			Have strategies been developed to include a combination of structural and/or non- structural BMP appropriate for the municipality?
$\boxtimes$			Have measures been implemented to ensure adequate long-term operation and maintenance of structural BMPs?
			If yes, describe measures below:
			• A written program requires maintenance activities for existing types of City- owned post-construction structural BMPs.
			<ul> <li>City Stormwater Management Criteria (Ord. 6778) requires property owners/successors to operate and maintain private detention facilities.</li> </ul>

List all the post-construction site stormwater management in new development and redevelopment BMPs as identified in the SMP and provide the requested information in the following table.

## E. Stormwater Management Program Requirements (Six Minimum Control Measures) (CONTINUED)

5. Post-Construction Stormwater Management (Table)

List all post-construction stormwater management BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 7 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp P-C S M - 03	Develop and implement a program to ensure adequate long-term cleaning, operation and maintenance of all municipally owned or operated post- construction structural stormwater BMP facilities. The program shall address several different types of these BMP systems. The systems, which are addressed, shall include any type of post-construction structural BMP system, contained in the MS4. These shall include, if so present, at a minimum the following: • detention ponds • retention ponds • grass swales • wetlands • pervious paving systems • vegetative filter strips • manufactured stormwater treatment devices (swirl separators, screens, etc.) • drop inlet-catch basin	In 2023, City staff created a written program document addressing required maintenance activities for existing types of City-owned post- construction structural BMPs. City staff inspected 4 of 37 (10%) identified City-owned structural BMPs per the documented program. Written plans were completed for each inspected BMP indicating necessary maintenance activities.	3
Lbmp P-C S M - 05	Develop and implement a program for inspection of permittee owned structural BMPs which includes implementation of needed maintenance to ensure long-term operation of the BMPs.	All City-owned and privately-owned structural BMPs within the MS4 are identified by the BMP Structure icon in the Stormwater Structures layer of the City's Stormwater Utility Network map. In 2023, City staff inspected 4 of 37 (10%) identified City-owned structural BMPs per the documented municipal BMP inspection and maintenance program. Written plans were completed for each inspected BMP indicating necessary maintenance activities.	2

Lbmp P-C S M - 07 Enact either an ordinance, a resolution, or other enforceable requirement which requires the installation of pervious surfaces on property.	Chapter 20, Article 9, 901(c), of the City's Land Development Code (adopted July 2006; revised via ordinance 9772, July 2020) requires all new developments to mitigate impervious parking surfaces when offering additional parking areas over a certain threshold. The code states that "Developments that provide parking in excess of the required standards must mitigate the impacts of the increased Impervious Surface through use of storm drainage Best Management Practices (BMPs) as provided in the City's adopted BMP manual (MARC)."	2	
TOTAL POINTS CLAIMED FOR POST-CONSTRUCTION STORMWATER MANAGEMENT			

## E. SMP Requirements (Six Minimum Control Measures) (Continued)

4. Municipal Pollution Prevention/Housekeeping

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A			
Ø			The permit requires the permittee to enact a program to address polluti prevention/good housekeeping for Municipal Operations. Has such a program be enacted?		
			If yes, describe program below:		
			<ul> <li>Maintaining regular street sweeping program</li> </ul>		
			Operating City recycling program		
			<ul> <li>Using Integrated Pest Management Policy Manual for pesticide application and guidance</li> </ul>		
			<ul> <li>Maintaining a program for regular CCTV inspection of MS4 system</li> </ul>		
			<ul> <li>Maintaining Stormwater program map of MS4 system and TMDL streams</li> </ul>		
			Operating municipal wetlands		
			<ul> <li>Retro-fitting City properties with stormwater BMPs as possible</li> </ul>		
			<ul> <li>Using best practices to reduce stormwater impact from winter roadway treatments and de-icer material storage</li> </ul>		

List all the municipal pollution prevention/housekeeping BMPs as identified in the SMP and provide the requested information in the following table.

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## E. Stormwater Management Program Requirements (Six Minimum Control Measures) (CONTINUED)

6. Municipal Pollution Prevention / Housekeeping (Table)

List all municipal pollution prevention / housekeeping BMPs as identified in the SMP and provide the requested information in the following table. The BMPs listed in the below table should add up to a minimum of 6 points.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS CLAIMED
Lbmp P P/G H - 02	Implement a recycle and proper waste disposal program for municipal staff to reduce potential for litter, to recycle waste oil, batteries, glass containers, plastic containers, and paper products.	<ul> <li>All City facilities utilize or can access the City's single-stream recycling collection and/or cardboard-only collection programs, which are collected and transported to the recycling facility via weekly routes.</li> <li>Individual departments (IT, Solid Waste, Central Maintenance, Field, Parks &amp; Recreation) recycle electronics, metals, tires, auto fluids, and organics on a routine basis.</li> <li>In 2023, City departments recycled: <ul> <li>up to 110 tons of cardboard and 180 tons of single-stream materials (based on route volume &amp; frequency),</li> <li>134 tons of metals and 7 tons of fleet/residential tires</li> <li>1.1 tons of electronic waste</li> <li>7.7 tons of paper for security shredding</li> <li>3.3 tons of hazardous waste</li> <li>3,000 gallons (11 tons) of oil and antifreeze and 4.75 tons of batteries from the City's garage facility</li> <li>Parks &amp; Recreation collected and delivered 1,350 tons of organic material for mulching or composting at the City's Compost Facility.</li> </ul> </li> <li>Overall in-house recycling by the City is estimated at approximately 1,800 tons for 2023.</li> </ul>	2

Lbmp P P/G H - 03	Develop a guidance document for municipal staff or third-party contractors which apply pesticides. The guidance shall require any municipal staff, who apply restricted use pesticides, to have a commercial applicator certification from the Kansas Department of Agriculture if required by that Department.	Lawrence Parks & Recreation requires all staff/contractors who apply pesticides to be properly licensed as applicators, and since its 2008 adoption, uses the Integrated Pest Management Policy Manual for guidance. Per the policy, restricted-use pesticides are not on the Allowed Pesticide List (2021), and when used, can only be applied under direct supervision of or by a trained, certified applicator. The policy also stipulates those applicators must comply with all label instructions.	1
Lbmp P P/G H - 05	Implement a program for street sweeping in which the street sweepings are collected and disposed of properly or recycled/reused if possible.	All City streets were swept approximately 1-2 times in 2023 for a total of 3,845 lane miles swept and 6,304 cubic yards of sweepings collected; 1,447 cubic yards of leaves collected from sweeping were hauled to the City's compost facility.	2
Lbmp P P/G H - 07	Implement a program to inspect stormwater inlets to identify illicit discharges and clean drop inlets of accumulated debris.	<ul> <li>In 2023, City staff inspected and cleaned the throat openings of 4,849 inlets (not unique inlets) for storm response and routine maintenance.</li> <li>City field operators regularly inspect and clean the interior of stormwater inlets as part of regular workflow. In 2023, staff cleaned and vacuumed out 46 inlets.</li> <li>Additionally, the City along, with contractor Trekk Design Group, will inspect and evaluate all storm sewer infrastructure via CCTV over multiple years. As part of this project, staff and contractors inspected 780 inlets in 2023, representing over 11% of total, city-owned storm system inlets.</li> </ul>	2
Lbmp P P/G H - 08	Develop, implement and keep updated an online storm sewer map accessible to the public.	A public Stormwater Program Map is available on the City 's Stormwater Management webpage (under the Stormwater Collection heading) as well as on the City Maps webpage. The map shows MS4/City boundaries, stormwater assets and infrastructure (including pipes, open streams, inlets, outfalls, etc.), and indicates impaired (303(d), TMDL) streams/rivers/lakes with links to information regarding the impairment(s). The map encountered issues with the visibility of some layers during the year, but issues were corrected once identified, and the map was updated and remained available for more than six months of the year.	2

Lbmp P P/G H - 09	Identify permittee owned facilities, open space and buildings that can be retrofitted for stormwater BMPs.	During 2023, Lawrence Parks and Recreation partnered with Grassland Heritage Foundation and Native Lands Restoration Collaborative for the Prairie Park Prairie Education and Restoration Project at the City's Prairie Park Nature Center. Project activities include the removal of invasive trees and plants and reestablishing native prairie plants on a five-acre piece of parkland.	1	
Lbmp P P/G H - 10	Install and operate a constructed wetland at a municipal facility such as at a parking lot, shop, maintenance facility, rest area or any other industrial/commercial type facility, e.g. recycling facility, transfer station, kennel, or airport.	<ul> <li>Constructed City-owned wetlands currently in operation:</li> <li>Located directly south of 711 E. 23rd Street (USD 497 Facilities and Operations Dept.). The area covers approximately 49,059 ft2</li> <li>Located north of the Sandra J Shaw Community Health Park at 110 Maine St. The area covers approximately 4 acres.</li> </ul>	1	
Lbmp P P/G H - 11	Install a canopy or other covered area for load-out of salt or other de- icing chemicals where such de-icing materials are stored either within the permit area or a storage facility located within 30 miles of this permit area.	<ul> <li>The City continues to operate from three covered storage areas for de-icing materials:</li> <li>Farmland salt building (1608 N 1400 Rd)</li> <li>Dome at Streets division (1120 Haskell Ave)</li> <li>Dome at West 40 Fueling site (1901 Wakarusa Dr)</li> </ul>	2	
Lbmp P P/G H - 12	Install a stormwater treatment system for capture of either trash, sediment, or debris. Systems may include any proprietary stormwater treatment system including CDS, Hancor, Enviro 21, etc. or similar custom designed systems. A system can be installed at a single municipal storm sewer outfall or on the storm sewer line immediately upstream of the outfall to reduce the discharge of floatables or other objects to receiving waters.	In 2023, two Hydro International Downstream Defender vortex separator systems were installed at the city's Central Transit Station facility. The City will maintain a log of material removed during maintenance activities.	3	
TOTAL POINTS CLAIMED FOR MUNICIPAL POLLUTION PREVENTION / HOUSEKEEPING				

## SMP Requirements (Six Minimum Control Measures) (Continued)

## 5. PHASE ONE OPERATORS ONLY: Monitoring Industrial and High-Risk Runoff

The permit requires the permittee to enact a program to address post-construction site stormwater runoff from new development and redevelopment.

Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
		$\boxtimes$	Has the permittee developed and maintained a list of the municipal industrial facilities contributing to the pollutant loading to the MS4?
			Have at least two municipal industrial facilities on the list had inspection and sampling conducted? If yes, list inspected facilities and the results of the inspections below:
		X	If the answer to items 1 and 2 is "No," provide a statement.

## E. Recordkeeping and Reporting

Some permittees are required to monitor surface waters if the permit includes TMDL monitoring requirements for Specific Impaired Streams to Target within Part II of the permit and surface water monitoring locations are identified in a subsequent table. Provide a current map of monitoring locations and site information data in the succeeding table (expand the table if necessary to address all sites).

Example map and table below—Please attach map and fill out table on page 26 and adjust as needed.



Upstream Site: Farwell Street Bridge over Charles River

Downstream Site: ArsenalStreet Bridge over Charles River

KEIMS Site Name	001A - Farwell	001B - Arsenal		
Sample Location Description	On the east side of this bridge is a pedestrian walkway where a rope and bucket is lowered to the middle of the river to obtain a sample.	From the bike path on the southeast end of the bridge a path extends down to the bank of the river. A 10 foot long sample pole with bucket at the end is used to reach out past littoral vegetation and obtain a sample.		
Lat/Long Data Decimal & Degree Format				
Latitude	42.367056°	42.358910°		
Longitude	-71.218089°	-71.161087°		

Please fill out table below accordingly and review the example map and table on the previous page for reference. The Site Names can be viewed in KEIMS under Discharge Monitoring Reports.

\*Clearly label sites as upstream or downstream which are on the same stream/river.

## 2023 City of Lawrence MS4 Stormwater Monitoring Summary:

The City of Lawrence performed stormwater sampling for six separate storm events during 2023, for six permitted sampling sites. City staff collected samples during qualifying events (as described in the permit) from the four permit-required locations and two optional sites between March and October.

Under the current permit, wet weather surface water quality monitoring is required on Yankee Tank Creek, Wakarusa River, and Baldwin Creek. However, the Stormwater Management Plan indicates the City will also sample two optional locations, one on Inverness Creek and one upstream on Yankee Tank Creek, to supplement the required sampling data.



- Wakarusa River Upstream
- Yankee Tank Creek @ E. 1200 Rd.
- Stormwater Sample Points Optional
- Inverness Tributary @ 27th & Crossgate
- Yankee Tank Creek @ Lake Estates Dr.

## Stormwater Sampling Points 2020

## Permit-Required Sampling Locations:



KEIMS Site Name	006A: Wakarusa River Upstream	
Sample Location Description	Wakarusa River upstream at the outfall of Clinton Lake Reservoir.	
Lat/Long Dat	a Decimal Degree Format (not degree-mir	nutes-seconds)
Latitude	38.931568°	•
Longitude	-95.329182°	0



KEIMS Site Name	006B: Wakarusa River downstream			
Sample Location Description	Wakarusa River downstream at E. 1900 Rd.			
Lat/Long Data Decimal Degree Format (not degree-minutes-seconds)				
Latitude	38.927715°	o		
Longitude	-95.148637°	0		



KEIMS Site Name	007B: Baldwin Creek at E 1150 Rd	
Sample Location Description	Baldwin Creek at E. 1150 Rd.	
Lat/Long I	Data Decimal Degree Format (not degree-min	utes-seconds)
Latitude	39.010013°	0
Longitude	-95,288642°	0



KEIMS Site Name	008B: Yankee Tank Creek at E 1200 Rd	
Sample Location Description	Yankee Tank Creek at E. 1200 Rd.	
Lat/Long Data	Decimal Degree Format (not degree-mir	utes-seconds)
Latitude	38.924441°	0
Longitude	-95.279076°	o

Copy additional site information tables below as necessary to list information for all sites.

City of Lawrence Optional Sampling Locations:



KEIMS Site Name				
Sample Location Description	Yankee Tank Creek at N.1500 Rd.			
Lat/Long Data Decimal Degree Format (not degree-minutes-seconds)				
Latitude	38.956799°	o		
Longitude	-95.332140°	o		



KEIMS Site Name		
Sample Location Description	Inverness Creek at 27 <sup>th</sup> and Crossgate Dr.	
Lat/Long	Data Decimal Degree Format (not degree-minut	tes-seconds)
Latitude	38.935359°	٥
Longitude	-95.288840°	0

#### Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Permittee:	Date Signed	
(Legally responsible person)		
Name Printed:	Title	_

#### 40 CFR 122.22 Signatories to permit applications and reports.

(a)Application. All permit applications shall be signed by either a principal executive officer or ranking elected official.

All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person.

Please note the submission requirements on page 1.

#### KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

Municipal Programs Unit

1000 SW Jackson Street, Suite 420

Topeka, Kansas 66612

KDHE.MS4@ks.gov